A Grammar of Bora
with
Special Attention to Tone

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A Grammar of Bora
with
Special Attention to Tone

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and
David Weber

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In memory of Eva Thiesen (1925–2009)
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<td>18.2</td>
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<td>D.3</td>
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<td>TD: bájtsóille, májchoíme, májchoóhi</td>
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This book is intended as a baseline description of the the Bora language.\footnote{An earlier draft of this grammar was circulated in 1998 and another in 2000. The content has not changed much since the 2000 draft. Publication has been delayed a decade for work-related reasons beyond the authors’ control.} It makes both structural and functional claims. Most of the description is framed in terms of basic notions accepted across linguistic theories; occasionally we make a theory-specific excursus.

**Authorship**

Wesley Thiesen, who—along with his wife Eva—worked intimately with the Bora people from 1952 to 1998, drafted a grammar sketch of Bora in Spanish but for the Bora people, to be included in the Bora dictionary (Thiesen & Thiesen 1998). In response to questions from David Weber (as linguistic consultant) this sketch grew to the point that it was decided that it should be published as a separate volume (Thiesen 1996).\footnote{Unless otherwise indicated, references to Thiesen are to Wesley Thiesen.}

Weber began transforming one of the intermediate Spanish versions into a more linguistically oriented English document, raising more questions, exploring deeper linguistic issues, dividing examples into morphemes and glossing them, and refining analyses. The analysis of tone was particularly difficult, but we are now satisfied that the analysis given in this volume gives reasonable coverage, although there are still a few unresolved issues.\footnote{To study the Bora tone system, Thiesen (circa 1954) identified 18 verbs that instantiated the range of tonal behaviors. He elicited each verb in 165 frames consisting mostly of different suffix combinations. He also identified 15 animate and 15 inanimate nouns. He elicited each animate noun in 28 frames and each inanimate noun in 31 frames. Although some of the root-frame combinations were not possible, over 3850 words were elicited.

To facilitate seeing patterns of tone, he made exhaustive charts representing just tone and length, i.e., suppressing the phonological segments. For the verbs, this resulted in what...}
The list of classifiers in appendix E was translated from a draft of (Thiesen & Thiesen 1998). The description of Bora kinship terms in appendix F was written by Thiesen in 1964 and later published as (Thiesen 1975b). The current version was revised with Weber in 1996. The texts included in appendix G were provided by Bora individuals. Thiesen provided the glosses and translations.

Acknowledgments

We would like to acknowledge the indispensable role that various people have played in making this grammar possible:

The Bora people welcomed the Thiesens into their community; they taught the Thiesens their language; they collaborated on the preparation of educational material, on a translation of the New Testament, and on the preparation of a dictionary. The following individuals made particularly noteworthy contributions: Julia Mibeco N., Eduardo Soria P., and Zacarías Míbeco.

Throughout the years of involvement with the Bora people, Eva Thiesen constantly supported the work and was an active co-worker. In particular, she developed the series of reading instruction materials whereby hundreds of Bora people learned to read.

The support network of the Instituto Lingüístico de Verano (Summer Institute of Linguistics) in Peru: the aviation, radio and computer technicians, the doctors and nurses, the school teachers, the administrators..., all enabled living and working over a protracted period in an otherwise challenging environment.

The Ministry of Education of Peru, by granting the Summer Institute of Linguistics a contract, made research such as that reported here possible.

The backbone of financial and moral support for this effort has been provided by Christians who desire that the Bible be translated into “forgotten” languages, even endangered ones like Bora. Without their support none of this would have happened.

Steve McConnel and members of the “(La)TeX for linguists” mailing list (at ling-tex@ifi.uio.no) provided indispensable help for formatting this book with \TeX, \LaTeX\ and finally \XeLaTeX.\footnote{Thiesen called his “tone book.” If we assume that there are seven tone marks per word (a conservative estimate), then the tone book has over 20,000 tone marks. After exhaustive study we have found only about a half dozen words in which Thiesen may have made an error.}
We wish to thank the following people, who read and commented on an earlier draft or some portion thereof (ordered by surname): Willem Ade-laar, Cheryl Black, Albert Bickford, John Clifton, David Coombs, Desmond Derbyshire, Tom Givón, Tom Headland, Mike Maxwell, David Odden, Steve Parker, David Payne, Doris Payne, Thomas Payne, Frank Seifart, and especially, very especially, Mary Ruth Wise.

**Why is Bora so interesting?**

The Bora phonology is rich in nonsegmental phenomena. There is an elaborate tone system, intimately tied to both the lexicon and the grammar. (An entire chapter is dedicated to tone, and it is discussed in virtually every chapter.) Various phenomena are sensitive to syllable weight, and perhaps conditioned by foot structure.

Morphologically, Bora is fairly agglutinative. There are many suffixes and few—if any—prefixes. Many apparent prefixes are proclitics.

Typologically, Bora is an OV language. Evidence for this claim is as follows:

1. Both Subject–Object–Verb and Object–Subject–Verb are common word orders. Predicate complement clauses generally have Complement–Subject–Verb order.
2. There are postpositions, e.g., in the locative construction, but no prepositions.
3. In the genitive construction the possessor precedes the possessed.
4. Adjectives may precede the nouns they modify but it is more common for the modifier to follow the head in an appositive phrase. (This is a consequence of the role played by the classifiers in forming referring expressions.)
5. Auxiliary verbs follow the semantically main verb (which is structurally subordinate to the auxiliary verb); see, for example, section 4.3.6.

Bora has a strong case system implemented by suffixes. There is an interesting animacy-controlled inversion of the direct object and recipient (goal).

Perhaps the most outstanding feature of Bora grammar is the presence of a large number of classifiers and the various ways they are exploited in carrying out reference. Strikingly, apposition—not constituency—is the primary “glue” for creating referring expressions.

In forming discourses, Bora has a remarkable system of sentential connectives, one that exploits the classifiers to provide great intersentential cohesion.

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Abbreviations and Conventions

Abbreviations

⟨ ⟩ surrounds the gloss of a classifier. In appendix G the symbols “⟨” and “⟩” are also used to indicate the topicalized or thematic element fronted from within some other constituent.

+ in tone derivations: blocking (i.e., failure to dock a tone)

* ungrammatical or unacceptable

*LLX constraint against nonfinal low tone sequences

= in tone derivations: delinking a tone

·¿? final high tone of interrogative phrases

· sentence boundary (in phonemic representations)

· syllable boundary (in phonemic representations)

ː vocalic length

(ʔ) optional glottal stop (?) in the syllable coda

⟨Θ⟩ ‘thing’ or ‘event’ (two morphemes that differ only in tonal properties)

⟨Θ⟩ ‘thing’ on marked sentences having -hukʰo ‘focus’

μ mora

ø a placeholder corresponding to a syllable; e.g., -øøne indicates that a low tone is imposed on the penultimate syllable of the stem to which -ne is affixed

ø null, empty category (gap, trace,…) ø, ø, ø empty category co-indexed with some other element

Ψ, Δ, Φ… variables

Ψ, Δ, Φ… the subscripts indicate that Φ and Ψ are coreferential

σ syllable

acc accusative

Adj adjective

Adj/Adj a suffix that occurs on an adjective and results in an adjective

Adv adverb (or adverbal phrase)
Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdvP</td>
<td>adverbial phrase</td>
</tr>
<tr>
<td>Adv/Adv</td>
<td>a suffix that occurs on an adverb, resulting in an adverb</td>
</tr>
<tr>
<td>AG</td>
<td>agent</td>
</tr>
<tr>
<td>anim</td>
<td>animate</td>
</tr>
<tr>
<td>AnPl</td>
<td>animate plural</td>
</tr>
<tr>
<td>aug</td>
<td>augment</td>
</tr>
<tr>
<td>C</td>
<td>consonant</td>
</tr>
<tr>
<td>C⃝</td>
<td>the floating low tone at the juncture between a classifier and the preceding element</td>
</tr>
<tr>
<td>Cv</td>
<td>low tone (on a vowel) due to a following classifier</td>
</tr>
<tr>
<td>-caus</td>
<td>causative</td>
</tr>
<tr>
<td>CF</td>
<td>contrary-to-fact</td>
</tr>
<tr>
<td>DET</td>
<td>determiner</td>
</tr>
<tr>
<td>DHT</td>
<td>Default High Tone</td>
</tr>
<tr>
<td>dim</td>
<td>diminutive</td>
</tr>
<tr>
<td>DO</td>
<td>direct object</td>
</tr>
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<td>du</td>
<td>dual</td>
</tr>
<tr>
<td>DuF</td>
<td>animate dual feminine</td>
</tr>
<tr>
<td>duIn</td>
<td>dual for inanimates</td>
</tr>
<tr>
<td>DuM</td>
<td>animate dual masculine</td>
</tr>
<tr>
<td>DVC</td>
<td>deverbal classifier</td>
</tr>
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<td>emphasis</td>
</tr>
<tr>
<td>ex.</td>
<td>exclusive (first person plural exclusive)</td>
</tr>
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<td>EXPER</td>
<td>experiencer</td>
</tr>
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<td>FDLT</td>
<td>Final Default Low Tone</td>
</tr>
<tr>
<td>FLTS</td>
<td>Final Low Tone Split</td>
</tr>
<tr>
<td>frs</td>
<td>frustrative, contraexpectation, counterfactual</td>
</tr>
<tr>
<td>fut</td>
<td>future</td>
</tr>
<tr>
<td>G⃝</td>
<td>the juncture between the modifier (possessor) and head (possessed) of a genitive construction. In some contexts G⃝ is also used to indicate the floating low tone at this juncture.</td>
</tr>
<tr>
<td>G</td>
<td>low tone (on a vowel) due to the genitive construction</td>
</tr>
<tr>
<td>Gv</td>
<td>low tone (on a vowel) due to the genitive construction and also a lexically marked low tone</td>
</tr>
<tr>
<td>N</td>
<td>low tone (on a vowel) due to the genitive construction and nonfinite tone</td>
</tr>
<tr>
<td>H</td>
<td>high tone</td>
</tr>
<tr>
<td>H⃝</td>
<td>high tone imposed on a preceding syllable</td>
</tr>
<tr>
<td>Hv</td>
<td>lexically marked high tone (on a vowel)</td>
</tr>
<tr>
<td>(h)</td>
<td>optional preaspiration (that occurs in the preceding syllable coda)</td>
</tr>
<tr>
<td>hab</td>
<td>habitual</td>
</tr>
<tr>
<td>Imp</td>
<td>imperative</td>
</tr>
<tr>
<td>I</td>
<td>low tone (on a vowel) due to the imperative</td>
</tr>
<tr>
<td>in.</td>
<td>inclusive (first person plural inclusive)</td>
</tr>
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<td>inanimate</td>
</tr>
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<td>InPl</td>
<td>inanimate plural</td>
</tr>
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<td>instrument</td>
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<td>irr</td>
<td>irrealis</td>
</tr>
<tr>
<td>(o)</td>
<td>optional palatalization</td>
</tr>
<tr>
<td>-KI</td>
<td>implicit –ki ‘purpose’</td>
</tr>
<tr>
<td>L</td>
<td>low tone</td>
</tr>
<tr>
<td>L⃝</td>
<td>low tone imposed on a preceding syllable</td>
</tr>
<tr>
<td>Lv</td>
<td>lexically marked low tone (on a vowel) or a low tone highlighted for the reader’s benefit</td>
</tr>
<tr>
<td>L.H</td>
<td>adjacent homorganic vowels with low and high tones respectively</td>
</tr>
<tr>
<td>Link</td>
<td>sentence-initial connective</td>
</tr>
</tbody>
</table>
lit. literally
*LLX constraint against nonfinal low tone sequences
μ mora
max maximum, finalized
med medial
mIn multiple action, intransitive
mSt multiple action, stative
mTr multiple action, transitive
v nonfinite low tone (over a vowel)
⟨n⟩ the negative verb-terminating classifier (used when there is a preverbal subject)
N noun
N/N suffix that occurs on a noun and results in a noun
N/N_case suffix that occurs on a noun and results in a “cased” noun
N/V suffix that occurs on a noun and results in a verb
-NE implicit -nε ⟨n⟩
neg negative
nwit nonwitnessed (evidential)
NP noun phrase
objAn animate object (the explicit accusative case marker)
oblIn oblique (case marker) for inanimate noun phrases
P postposition
palat palatalized
PC predicate complement
per pertain to
pl plural
plAn plural for animates
plIn plural for inanimates
plQ plural for quantifiers
PLTS penultimate low tone split
PP postpositional phrase (or prepositional phrase)
PPHE possessor’s penultimate
case suffix that occurs on a noun and results in a noun case
“cased” noun
N/V suffix that occurs on a noun and results in a verb
-NE implicit -nε ⟨n⟩
neg negative
nwit nonwitnessed (evidential)
NP noun phrase
objAn animate object (the explicit accusative case marker)
oblIn oblique (case marker) for inanimate noun phrases
P postposition
palat palatalized
PC predicate complement
per pertain to
pl plural
plAn plural for animates
plIn plural for inanimates
plQ plural for quantifiers
PLTS penultimate low tone split
PP postpositional phrase (or prepositional phrase)
PPHE possessor’s penultimate
high extension
PredAdj predicate adjective
prob probable
prox proximate
prtc participle
PT projected time
pur purpose
ques question (root)
rec recent past
recip reciprocal
rem remote past
res.pos resulting position
R/P reflexive or passive
rpt reportative
Resultₙ result clause with same subject
S sentence or clause; subject
v high tone on the first syllable of the verb of a subordinate clause
s-V verb with a proclitic subject
SAP speech act participant, first person plural inclusive
sg or Sg singular
SgF animate singular feminine
SgImp singular imperative
SgM animate singular masculine
sib sibling
sim similar
sIn single action, intransitive
Site site of attachment
sou source
sSt single action, stative
sTr single action, transitive
STR structure (in figures)
su subject
sub subordinate (-h)
T tone
⟨t⟩ the verb-terminating classifier (used when there is a singular imperative
SgImp singular imperative
SgM animate singular masculine
sib sibling
sim similar
sIn single action, intransitive
Site site of attachment
sou source
sSt single action, stative
sTr single action, transitive
STR structure (in figures)
su subject
sub subordinate (-h)
T tone
⟨t⟩ the verb-terminating classifier (used when there is a

Abbreviations
Conventions

THE INDEX:
In the index, entries are ordered according to the English alphabet. Bora words are written according to the Bora writing system (the “practical orthography”) to facilitate finding them in alphabetical order.

EXAMPLES:
Examples generally present four types of information. The position of these parts varies in the interest of saving space. (1) The Bora example is written in a phonetic or phonemic form using the International Phonetic Alphabet (IPA). (2) The example is also written in the Bora writing system, with this sort of font (sans serif). This is sometimes located above the phonetic / phonemic representation and sometimes following the phonetic / phonemic form (in parentheses). (3) A morpheme-by-morpheme gloss is given either below the Bora example or in parentheses following it. (4) A free translation follows, either on a line below the morpheme-by-morpheme text or following it at the end of the line.

BORA CITATION FORMS:
(a) Words given “in isolation” (i.e., without any preceding or following text) may meet the conditions for the application of either PLTS or FLTS. If so, the isolation form will be the output of the rule (which is how it would be pronounced in isolation). (b) Sometimes the phonetic / phonemic representation of words, roots, affixes,...make lexically
marked tones explicit, as discussed below, while omitting the tones of other syllables. (c) When verbs are cited, the phonetic / phonemic representation may make lexically marked tones explicit whereas the orthographic form gives the nonfinite form; see section 4.1, page 100, especially figure 4.1. For example, ḥ́¹lak’ú’mú (áwacúnu) ‘to yawn’.

PHRASE MARKERS:
Phrase markers (“trees”) with which structure is represented are intended as suggestive, neither definitive nor what would might be expected for any particular theoretic perspective. Some sentences are given with a rather flat structure. This makes it easier to deal with Bora’s relatively free word order, but at the cost of sometimes obscuring subcategorization relationships. For example, see the tree given for example 662, page 277. Some affixes are treated as separate syntactic constituents; for example, case markers are treated as postpositions.

TONE DERIVATIONS:
The Bora forms in tone derivations are written as Bora people normally read and write their language. Tone derivations use the font with which this sentence is written.

LETTERS REPRESENTING USES OF TONE:
We sometimes use H to highlight a high tone and L to highlight a low tone. Further, to help the reader keep track of different uses of tone, we sometimes indicate the use by writing a small letter over the vowel. These letters are as follows:

<table>
<thead>
<tr>
<th>LETTER</th>
<th>TONE</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>low tone</td>
<td>classifier</td>
</tr>
<tr>
<td>Č</td>
<td>low tone</td>
<td>genitive</td>
</tr>
<tr>
<td>H</td>
<td>high tone</td>
<td>lexically marked high tone</td>
</tr>
<tr>
<td>ČH</td>
<td>high-low tones</td>
<td>remote past tense</td>
</tr>
<tr>
<td>ČV</td>
<td>low tone</td>
<td>imperative(^a) (verb)</td>
</tr>
<tr>
<td>L</td>
<td>low tone</td>
<td>lexically marked low tone</td>
</tr>
<tr>
<td>N</td>
<td>low tone</td>
<td>nonfinite (verb)</td>
</tr>
<tr>
<td>Š</td>
<td>high tone</td>
<td>subordinate (verb)</td>
</tr>
</tbody>
</table>

\(^a\)This low tone is the nonfinite tone; I is used to remind the reader that the nonfinite verb is used to form an imperative.

When two uses coincide on a syllable, we sometimes put two letters over the vowel. For example, ČN indicates that both the nonfinite and genitive tones fall on this syllable.
Chapter 1

The Bora People

This chapter is a brief description of the Bora people: their history, their culture, their position in the nation of Peru, and so forth. (The origin of the name “Bora” is not known.)

1.1 Demographics and history

Bora is a Witotoan language (Aschmann 1993) spoken by between 2,000 and 3,000 people, about 1,000 of whom live in northern Peru. At the time of European contact, the Bora were reported to number about 25,000 (see Steward 1948:750). However, their numbers declined radically as a result of abuses suffered during the rubber boom that started in 1886 (Ribeiro & Wise 1978:71–73). The Bora culture was first studied by anthropologists in Colombia before many Bora people migrated to Peru (see Steward 1948:751).

The Bora people of Peru live primarily along the Ampiyacu and Yaguasyacu Rivers and secondarily on the Momón (tributary to the Nanay) and Putumayo Rivers. There were about 500 living near Puerto Ancón on the Yaguasyacu River, but this community no longer exists. See figure 1.1.

In Colombia, about 150 Bora people live on the Ígara-Paraná River and about 100 on the Caquetá river at Mariápolis, Remanso, Santa Isabel, Las Palmas and living in scattered houses. This is the area from which the Bora of Peru migrated. These people are referred to by outsiders as “Miraña” but the Bora of Peru refer to them as the “down-river people,”
CHAPTER 1. THE BORA PEOPLE

Figure 1.1 Where the Bora people live

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reflecting the fact that the Bora in Peru migrated from west (upriver) of the Miraña. The speech of the Bora people in Colombia is approximately 90 percent intelligible with the Bora of Peru. A closely related—but mutually unintelligible—language is Muinane (not to be confused with Muinane Huitoto, now called Nü pope Witoto). It is spoken by about 100 people on the Caquetá River, upriver from where the Miraña people live. There is also at least one Bora community in Brazil.

The Bora were alleged to be a warlike and cannibalistic people who often attacked neighboring tribes, eating the victims (Steward 1948:756–757). Thiesen was informed that they only ate certain parts of their enemies, and that they ate those to gain power. One of his sources, an elderly woman, said that she remembered how human flesh tasted. The chief who lived at Ancón and later at Brillo Nuevo also remembered. (That chief died about 1980.) To our knowledge cannibalism has not been practiced by the Bora in more than a century.

Starting in 1886, Europeans arrived in pursuit of rubber, using the native people to do the work in exchange for axes, machetes, beads, tin cans, mirrors, and such. The Bora were eager to obtain these things, but after a time rebelled at being enslaved by outsiders. This led to warfare and the massacre of thousands of indigenous people. Those who remained were whipped or beaten until dead, or until they were willing to penetrate the rain forest to collect rubber. Mibeco, the chief, remembered how the “Gun Men” (the Bora name for Europeans) used imported Negroes to hunt down the natives who refused to work for the rubber barons. He reported witnessing his father—along with many others—being whipped, piled on firewood, and burned to death.

The arrival of diseases to which the Bora people had no immunity (e.g., measles) further reduced their population. Their population was estimated

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1One difference is that they preserve the /ai/ that accounts for /a/s in Peruvian Bora that palatalize. Also, what in Peruvian Bora is a labial-velar, in the speech of the “down-river people” is a labialized velar [kʷ].

The following information was found in the archives of the Colombia Branch of the Summer Institute of Linguistics. The information—dated 1986—was provided by the New Tribes Mission:

[It was judged that there were] some 90 speakers of Miraña scattered along the Caquetá River between La Pedrera (the downriver end, where the Caquetá enters Brazil) and Araracuara (the upriver end, approximately 72° W and about .5° S). There were perhaps 40 more who call themselves Miraña or Bora but who did not speak the language. There was definite language shift going on to Spanish. Only about 3–4 were considered to be monolingual in Miraña. Another family was reported to be some 2–3 days travel up the Cahuinarí River (a major tributary of the Caquetá coming in from the south).

We appreciate Paul Frank’s help in recovering this information.
to be 12,000 in 1926 and 500 in 1940 (see Steward 1948:751). These estimates are probably conservative because many Bora people moved farther into the rain forest and away from the large rivers during this period.

About 1920 the Loayza family brought a group of Bora, Ocaina, and Witoto people from the area of the Ígara-Paraná River in Colombia to the Ampiyacu River in northeastern Peru. (The Loayza family had lumber and mineral rights to a large area on the Ampiyacu and Yaguasyacu Rivers. They claimed to own the land but did not have title to it.) The Loayzas made their home at Puca Urquillo. Some of the Witoto lived on the upstream side of the Loayza home and some of the Bora on the downstream side. Puca Urquillo is still the largest Bora settlement. The Ocaina moved upstream on the Yaguasyacu, a tributary of the Ampiyacu, to a place known as Isango. Some of the Witoto moved to Estirón, half an hour upstream from Puca Urquillo. Some of the Bora moved up to a place on the Yaguasyacu that they called Ancón and some moved farther upstream to a place they named Colonia.

Due to modern health care (particularly for infants), the population is increasing. As their population increases, they are dispersing. About 1972 some from Colonia started another town downstream from Brillo Nuevo and named it Nuevo Peru. Quite a number now live on the northern edge of Pebas. Some have settled along the Amazon upstream from Pebas. There are some in Iquitos and in the town of San Andrés about 30 minutes from Iquitos on the Momón River. Others live in Leticia (Colombia) on the Amazon River at the border with Brazil, and on the Putumayo River at Tarapacá (Colombia), at Remanso on the Peruvian side and at Arica on the Colombian side. Along the Ígara-Paraná River in Colombia there are Bora people in small groups at Esmeraldas, Redondo, Indostan, Santa Julia, Providencia and Nuevo Providencia, Latagua, and La Chorrera.

In 1975 the Bora people obtained title to 3,462.80 hectares. This was made official by Resolución Departamental 4500, Título 130–75 (Brack Egg & Yáñez 1997:168–169).2

When the Peruvian Ministry of Education, in collaboration with the Summer Institute of Linguistics, initiated bilingual education among the Bora in 1955, the people were very enthusiastic. Little by little they began moving together so their children could attend school. Because they needed more land for a larger town, the people from Ancón moved across the river and upstream to a place where there was a larger flat area. There,

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2According to Brack Egg & Yáñez (1997:174–177), three other communities have land titles: (1) Betania by resolution Rd 0360–1990, Título 001–92, 330.46 hectares, (2) San José de Piri by Rm 0586, 1991, Título 022–92, 507.50 hectares, and (3) La Florida Ampliación (Bora-Ocaina) by resolution Rs 0105, Título 056–91, 4620.75 hectares.
starting in 1957, they built a new communal house, a school, a church, and individual homes around the plaza facing the communal house. The new town was named Brillo Nuevo.

For a time, the excitement of reading, writing, arithmetic, and classes for learning Spanish made it worthwhile to live closely together. Then they began to realize that many changes were negative. There were too many people, chickens, and dogs in one area. Women had to go farther from the town to tend their fields. Game was soon depleted, so they had to go farther away to hunt for their meat. And, while they were generally loyal to their clans, they began stealing from each other’s fields.

Eventually, everyone except the chief and his family moved away from the plaza on the hill, resettling along the river front. Some built their houses farther away, yet near enough that the children could walk to school. This reduced the concentration of people and animals, but many must still go considerable distances to make their fields and to hunt. Recently, they are making fields on closer land that was farmed 20–30 years ago.

1.2 The future of the Bora language

Today there are few monolingual Bora speakers. A few elderly adults do not know Spanish well enough to be able to buy and sell. All those between 50 and 60 years of age are more or less fluent in Spanish for daily needs (although they still prefer to speak Bora). All those under 50 are quite fluent in Spanish.

All Bora children now learn Spanish. Some learn Spanish as their first language and do not go on to learn Bora as a second language, while other children do. Many Bora children still learn Bora as their first language and Spanish as a second language.

As young people move to the cities they leave Bora behind and their city-born children learn only Spanish. The Bora language may survive only a few more generations but at present there are still many of all ages speaking it.

The Bora people are interested in new ideas, anxious to learn and quick to catch on. Those who have attended schools outside their community (bilingual teacher training, Bible institutes, courses in Iquitos, and such) generally rise quickly to the top of their classes. Three who graduated in the first class from the Instituto Superior Pedagógico Bilingüe Yarinacocha proved to be good teachers; all were subsequently asked to teach in
future sessions of the training course. There are secondary schools in Brillo Nuevo and in Puca Urquillo partially staffed by Bora people.

An initial attempt to teach Bora people to read began by teaching just the segmentals, deferring the issue of tone. This proved to be impractical, forcing the conclusion that tone should be taught first. Students listened to the tones as these were tapped on two boards having different tones and were taught to relate this to written tones. This proved successful. The booklet (written in Spanish) *El manguaré facilita la lectura del bora* (Thiesen & Thiesen 1985) follows this method. It teaches tone first and then explains the differences between Bora and Spanish segmentals. It has proven to be the case that any Bora who reads Spanish can learn to read Bora without much difficulty. Writing Bora is also taught by the same method (see Thiesen 1989).

Bora children now learn to read Spanish before learning to read Bora. There are various reasons for this, among them the following: First, there are now virtually no Bora school books in Bora communities, those used in the early years of the bilingual education program having deteriorated. Second, Bora teachers trained in bilingual education have been assigned to higher grades, to positions in educational administration, or in some cases to schools in non-Bora communities. Third, children are now exposed to considerable oral Spanish before entering school, so teaching them to read in Spanish is now feasible and strongly favored by parents. Quite a few children go on to learn to read Bora after learning to read Spanish.

In summary, the number of people who are strongly identified with the Bora language and culture is declining because of assimilation to the national culture, through contact with Spanish speakers, through the educational system, through marriage with non-Bora people, and so forth.

### 1.3 Social structure

The Bora people are organized into patrilineal clans, each having its own chief. Each clan speaks a slightly different dialect; see appendix A. The chief and his immediate family are in charge of the traditional dances and festivals (even in the infrequent case that it is sponsored by another individual).

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3One was the director of the primary and secondary bilingual schools at Brillo Nuevo and was the director of the Instituto Superior Pedagógico Bilingüe Yarinacocha for one year. Another is the supervisor of eight or nine bilingual schools in the Pebas area. The third has been working in the Office of Bilingual Education in Iquitos.
When matters of discipline, festivals, fishing and hunting need to be discussed, the chief calls his council together, using the large signal drums. The council consists of all the adult men. When convened, the members sit in a circle, either around the fireplace at the center of the big house or near the signal drums. As they discuss the problem at hand, they fill their cheeks with roasted coca leaves that have been ground into a fine powder and lick a thick paste of boiled tobacco juice from a stick inserted into their small bottles.

The chieftainship is passed from father to son, but a chief’s position may be revoked if the council decides that he is not capable of leading the people.\(^4\)

As late as 1952, the Bora people were living in traditional clan units. Each clan lived in a large communal house. These were scattered with perhaps a minimum of two kilometers between them.\(^5\) Just inside the entrance of the communal house, to the right, are the Bora signal drums. These play an important role in Bora culture; see section 1.8.

The father or grandfather was the chief of each unit. He lived in the place of honor at the back of the house (at the other end from the front door). His sons and their families lived along the sides of the house (sleeping on raised platforms that are sufficiently high so that one can work under them). This house was used for all the community activities. Also, the women did their cooking in the big house, and the men prepared their jungle salt, coca powder, and tobacco paste there.

By 1955 the system was breaking down: the sons were building individual family houses near the communal house. The men still use the big house for preparing jungle salt, coca, and tobacco paste, but increasingly the people have built their own cook houses and live as separate nuclear families. Festivals (and the preparations for them) are still held in the communal houses.

### 1.3.1 Festivals

Until the late 1960s, festivals were held frequently. These were central to Bora social structure. There were many different festivals, which were

\(^4\)Now village authorities are appointed by outside authorities or chosen by the communities along the lines of the general pattern of village administration in Peru, with a president and a registrar (who can register births and deaths).

\(^5\)At one point circa 1955 there were four communal houses within five kilometers of Brillo Nuevo and a fifth in an Ocaína village ten kilometers downstream from Brillo Nuevo. There was another downstream in Puca Urquillo, about fifteen kilometers direct distance but considerably farther if going by canoe.
of considerable importance because it was believed that doing them well was necessary to ensure a good life, particularly to appease supernatural spirit beings. (Generally, the Bora people did not worship any gods, but rather appeased spirits that might harm them.)

Festivals are still occasionally carried out in certain villages. When a new communal house is built a series of festivals is organized to insure protection for the house and its occupants. However, festivals today are not the grand affairs they used to be. After all, to carry out a festival takes the cooperation of all the people in a village, who must do considerable work: six or seven months in advance a big manioc field must be planted to provide food for those who attend. People are now reluctant to contribute their time for preparations.

The family that “owns” the festival provides the cassava (a form of bread made from manioc as described below), cahuana (an unfermented starch-based drink), fruits, and tuberous roots. Those invited are expected to bring meat. As people arrive with their meat, they exchange it for the food that is laid out for them. The chief determines how much cassava, roots, and fruit should be given in exchange for the meat, in part depending on how much of the former have been prepared. (There can be disappointments on both sides.) There is a large container on the ground made from the bark of a tree, lined with large leaves. This is filled with cahuana. The people at the festival drink from this throughout the festival. At the pijuayo festival the cahuana is flavored with pijuayo, that is, the fruit of the pijuayo palm (*Bactris speciosa*).6

### A typical festival

In 1952, the senior co-author and his wife, Eva Thiesen, described a typical festival as follows:

The chief told us excitedly that he was preparing a big festival, that he remembered how his forefathers had done it, and that he was going to do the same. He wanted to make a big dance so all the people would come together, so he could talk to them.

He had been planning to make this dance for a long time, and had planted much extra food so that there would be plenty. For several weeks before the festival everybody was busy. The women prepared the food, and they weeded and swept the yard. The men worked hard weaving

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6Sometimes, to have enough *pijuayo* for the festival, a considerable quantity is collected in advance and buried in the ground. It is dug up when needed. This is done because it will keep in the ground much longer than in the air.
leaves and repairing the roof on the big communal house. Some of them walked several days into the rain forest to gather a certain plant from which to make salt.\footnote{These plants are piled on firewood and burned. The ashes are placed in a funnel and water is poured over them. Then this water is boiled until all that remains is a small amount of very strong salt.}

Eight days before the festival the chief sent an invitation to the other Bora clans, as well as to the neighboring Ocaina and Witoto people. The invitation consisted of tobacco boiled to a thick syrup (like molasses). If the chief of the clan accepted, and he and his council partook of the tobacco, that meant that they would come to the festival.

However, the man communicating the invitation made a mistake: he offered the Witotos their tobacco before offering it to one of the Bora chiefs. This was an insult to the Bora chief, provoking him to refuse the tobacco. He did not come to the festival. To make amends for the insult—we were told—the chief making the festival would have to make a subsequent festival and send the slighted chief the first invitation. Until that time, they would be at enmity.

On Wednesday the clan began drumming out the bread-making song on the signal drums (which can be heard as far as twenty miles away). This drumming continued until 1:30 A.M. (Thursday while making pijuayo drink, they beat out the pijuayo song. This song continued until midnight, at which point they switched to the painting song. At this point everyone who intended to come to the festival was supposed to be painting his face and body. This song was continued all day Friday, and was accompanied by singing and dancing all through the night.)

Thursday morning the men went upriver to find a big tree. They cut it down and flattened it on one side. They brought it downriver and carried it into the large house, accompanied by much shouting. The women were not permitted to look at the log—which represented the body of their enemies—until it had been put in place. (It is believed that it would cause the death of any woman that looked at it.)\footnote{The young girls came to make sure that Eva and our daughters could not see it.} The two ends of the log were placed on cross logs so that when the men danced up and down on it, it hit the ground with loud thuds, according to the rhythm of the song. Once it was in place, the clan all ran to it and began to dance, the men on the log and the women on the ground facing them.

The guests began coming early Saturday morning. As they arrived, they were again given a formal invitation (consisting of a small piece of meat dipped in the tobacco syrup), after which they were taken to the communal house, clan by clan, each preceded by pairs of flute players. The Witotos
marched around the house before entering, yelling, shouting, and beating on the roof with long poles, thus staging a mock attack. Upon entering, they bargained and exchanged their meats for the other foods that were supplied by the hosts. The meat included peccaries, tapirs, monkeys, birds, and large, live grubs and worms. The food provided by the host was bread made from bitter manioc, a pure starch drink (cahuana), peanuts, a thick pineapple drink, and pijuayo drink (none of which was fermented).

One or two couples were busy all day and all night singing a song of thanksgiving for the food. The song included a line telling the people to take, eat, and drink of this food, which was their life sustenance. They sang in harmony, in a rather harsh voice, but beautifully. After each singing, the pot was refilled and passed to the next person to drink.

One reason for the festival was the name-changing ceremony. As is customary, the chieftainship is passed to the son after the death of the chief. However, long before the chief dies, a festival is carried out to pass the chief’s name to his successor. In the case of this particular festival, the grandson was given the name of the father, and the father the name of the grandfather, who is still the chief.

Also, the chief’s eight-year-old daughter received the name of a deceased aunt. The girl was painted black from head to foot, and wore a blue and white beaded girdle with a fringe of shells. She had rings of white cotton around her legs and arms, along with bracelets, anklets, necklaces, and earrings. The Bora ordinarily paint black around their mouths, their eyebrows, and sometimes their cheeks. For this occasion many of the girls, as well as women, had the typical Bora design painted all over their bodies; see plate 85 of Steward (1948), following page 762.

After the name-changing ceremony, which consisted of much chanting, the dancing resumed. This time the chief’s family held hands and led a group that danced for a time around the women. Then they formed the front row for the completion of the dance. Some of these dancers wore nut rattles on their ankles; these greatly accentuated the rhythm.

The singing and dancing continued all day. At about 8 P.M. the singing changed to a song of insult to the chief, who—they said—had not prepared enough food. This song lasted for a couple of hours and throughout the song they were eating and drinking as much as they could to get rid of all the food.

The chief, who was sitting in a circle with his council, was merely grinning and continued chewing his coca and tobacco juice. It was apparent that this was the people’s ironic way of complimenting him on a very fine festival. He seemed very pleased that everyone was having a good time.

The guests went home at 4 o’clock Sunday morning, tired but satisfied.
1.3. SOCIAL STRUCTURE

1.3.2 The patrón system

The Bora people lived for many decades under the patrón system whereby an outsider (and his family) exploited the labor of a group of people in exchange for assuming certain responsibilities for them. The patrón gave cloth, kettles, blankets, and other goods on credit. To pay for this the men were required to go into the rain forest to gather chicle, rosewood, and other raw materials. Upon paying, they were given more goods so as to keep them constantly in debt. The patrón kept basic medical supplies for the people. He organized soccer games for the people, but not schools. And he prohibited other outsiders from going to where the Bora people lived (on the pretext that they would “bother” them).

The Bora in Peru persisted under this system for about forty years after being brought to Peru by the Loayza family.9

When they learned simple mathematics, the Bora people began to question the value of the exchanges made with their patrones and their chiefs. Men became less willing to leave their families to work in the rain forest gathering rosewood and chicle. However, when the patrón would bring trade items (machetes, axes, kettles, yard goods for mosquito nets and for clothing, blankets, hair clips, and beads) they were eager to take these items on credit; they then had to go to work in the rain forest to pay for them. Working for a patrón was a form of security. He took care of them, provided basic medicines, and protected them from outside exploitation. Forty years after the demise of the patrón system many Bora people still find it difficult to be independent. They want to be in debt to someone who will provide security for them.

The patrones were able to keep river traders away from the people for a time, but were eventually no longer able to do so. When the traders came in, they brought liquor, which has become a disruptive factor in the communities. The people, however, discourage traders because they want everything on credit and often manage not to pay when the trader returns to collect their bananas and other products. The sale of skins of wild boar, jaguar, and ocelot are now controlled by the government, so traders can no longer count on making a profit on these. Therefore, it is now often necessary for the Bora to travel downstream to Pebas to buy supplies. The chief, the teachers, or anyone else with cash may bring back soap, kerosene, or liquor to sell in the town. At one point a store was set up in Brillo Nuevo. It prospered until the storekeeper began to sell on credit; thereafter he was soon forced out of business. The attitude of the

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9We do not know how long they might have lived under the patrón system in Colombia before being brought to Perú.
Bora is basically that debts are to be paid off only with work, while money is to be spent on goods, not debts.

1.4 Work

The Bora people are industrious; they enjoy their work. They demonstrate a spirit of cooperation in all their activities. The principal activities are clearing and tending fields, building houses, hunting, fishing, and food preparation.

The people wake up early, eat a breakfast of má:?ò ‘cassava bread’ with pʰɨ̀mɨ́ˀʦʰò’dip’. They then go to their fields to work and gather food. They usually return about 1 P.M.

Besides hunting and fishing and cutting down new fields, men work at house building, making canoes, and lumbering. Women are primarily involved in food preparation, childcare, agriculture, and the sewing and washing of clothes. In recent years both men and women have become increasingly dedicated to handicrafts for sale. For example, they make shoulder bags and hammocks from the fibers of the chambira palm, weave baskets, carve paddles, make feather headdresses, flutes, and jaguar tooth necklaces. These are generally taken to Iquitos and sold to stores that resell them to tourists.

1.4.1 Agriculture and gathering

The men cut down the trees to make a new field. The women burn it, clean it, plant it, cultivate it, and harvest the crops.

Each family owns its own field but a great part of the work is done together. One day they all work in one field, the next day in another, and so on.

Considerable manioc must be planted to keep a constant supply. As manioc is dug up, a piece of the stem is replanted for the next year. Other starches that are cultivated are: sachapapa (an edible tuber), arrowroot (huitina), sweet potato and daledale (Callathea alleuia). Peanuts are also grown in limited amounts.

There are many kinds of fruit. Some, like cocona, grow wild. Others are planted and tended, either in fields or near houses. These include papaya, pineapple, plantains and bananas, uvilla, guava, pacae, anona, macambo,
umari, aguaje, sour sop, and pijuayo. When pijuayo or pona palms are cut down, the heart is eaten.

Sometimes food is found while going through the rain forest: caterpillars, honey, and so forth. The first person to see edible caterpillars carves his mark on the tree so no one else takes them before they are mature.

Suris (palm grubs) are planted in a palm log and left to grow and multiply: an aguaje palm tree is cut down and notches are cut in the side of the fallen trunk. A beetle then lays its eggs in these notches. These hatch and feed on the decaying pulp in the center of the tree. When the grubs are fat and juicy they are harvested and eaten.

Bora men plant coca and tobacco, both of which are important in the Bora culture, being central elements in the traditional society; see section 1.3.1.

The coca leaves are toasted. Then, using a hollow log mortar, they are pounded, along with the ashes of the burned leaves of a certain balsa tree, into a fine powder. This fine powder is sifted through a cloth bag into a large black earthenware pot. (To keep the fine powder from flying, the bag is shaken while held through a mat cover having a hole in the center.) It is stored along with a tablespoon in cans having lids (such as empty coffee cans).

Before going out to work the more traditional men fill their cheeks with this coca powder. They also do this at night when they sit around the council fire, and lick tobacco paste from small bottles. (Women never ingest coca.)

Tobacco leaves are boiled and mixed with “jungle salt” to make a thick paste. This is put in a small bottle and then licked from a short stick. When a visitor arrives, he is offered a lick of tobacco. (Tobacco is never smoked.)

1.4.2 Food preparation

The women do the cooking. Each nuclear family has its own fireplace, but often families take turns cooking for the whole household, and all eat together from one main pot.

When there is something to cook, the women cook a meal in the early afternoon. This is eaten when the children return from school. After the afternoon meal, the women work at making cassava bread, and the men process their coca and tobacco.

Most families have only a few dishes, so they eat in shifts, the men first. Alternatively, the family gathers around a shared bowl or kettle.
Manioc is the most important item in the Bora diet. It is eaten boiled or roasted. Bitter (poison) manioc is used to make cassava (bread) and cahuana, a starch drink. The bitter manioc must be specially prepared to destroy the poison it contains. It is difficult to distinguish from regular manioc. Several years ago a mother at Puca Urquillo, hurrying to make food for her family, cooked bitter manioc by mistake; consequently two of her children died. When in doubt a woman may take a bite and spit it out when she has determined which kind of manioc it is.

The process of making cassava takes a good deal of a woman’s time. The bitter manioc must be dug in the field, carried to the house, washed, peeled, and grated. (Graters are made from tin cans opened flat, into which many holes are pounded with a nail. The under side of the can is turned up and nailed onto a board, and thus becomes a grater.) After it is grated, the manioc must be washed many times to remove the poison. For this purpose a tripod is erected into which is mounted a large round sieve woven from reeds. A large kettle or clay pot is placed below this. The grated manioc is placed in the sieve and water poured over it. It is kneaded to get the starch to separate from the fiber. This is repeated, usually five or six times. The starch settles to the bottom of the kettle.

The water, which now contains the toxins, is poured into another kettle and boiled with fish or the meat of small animals, hot pepper (or whatever) until it becomes a black paste. (There are several regular recipes for this paste.) The boiling destroys the poisons. The resulting paste is eaten as a dip for cassava.

To remove the excess liquid from the starch, it is put into a cylindrical woven reed press called a poahu. These are stretched with weights to squeeze out the liquid. It is then gathered into a ball and placed in a basket lined with leaves and allowed to age for three days (during which the bitter flavor mellows).

To bake the máʔòó, some of the starch is sifted through a special sieve, one that is more loosely woven than the sieve used for washing. This sifted starch is sprinkled onto a ceramic baking plate (similar to the large, black, roasting kettle used to toast coca leaves). This has been preheated over a fire (usually made with numerous small pieces of firewood). A wooden spatula is used to shape the máʔòó. When one side is sufficiently cooked, it is removed from the fire and another portion is spread on the plate. Then the first portion is put on top of the second so that they become one. In this way a piece of bread may become nearly an inch thick. It is, however, sometimes made thin. In consistency, the bread is similar to a
1.4. WORK

Some of the fiber may be mixed with the starch to stretch the starch and to give more variety. What fiber is not consumed in this way is fed to the chickens.

_Cahuana_, a starch drink, is a basic part of the Bora diet. It is made from manioc starch by first mixing it with cold water and then adding hot water until it becomes clear and rather thick. If pineapple, _umarí_, or _aguaje_ is available, the juice is added for flavor. Anyone visiting a Bora house is offered a drink of _cahuana_.

### 1.4.3 Hunting

The men do the hunting. They often go hunting for several days far from the village. All hunting is now done with shotguns. (They formerly knew how to make blow guns but have not used them for at least fifty years.) The meat they get may be salted and smoked to preserve it. The men come home when they have all the meat they can carry. Meat from larger animals is shared with relatives and neighbors if they bring it in fresh, and sometimes when it is smoked. They hunt for large rodents (_agouti_ and _capybara_), both for meat and to protect their crops. Monkey, deer, tapir, peccary, coati, sloth, porcupine, and birds are also eaten.

Sometimes a herd of peccaries runs near the village. When this happens most people get their own supply of meat. Several years ago a herd of peccaries crossed the river right into the village. They can be dangerous, so those who were unarmed climbed trees or ran for cover.

### 1.4.4 Fishing

The Bora fish with hooks, nets, spears, traps, and poison. When fishing with poison, everyone goes to help.

The children love to fish with hooks, and they prepare their fish and eat them on their own, or sell them to outsiders to buy more fish hooks and fishing line.

If a widow does not have a man to hunt for her, she relies heavily on fish. Further, all women depend heavily on fish, because they should never eat the meat of a tapir and because other meats are also taboo at various times of their lives.

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10The Ocaina and Witoto also use bitter manioc but prepare it by a different method; the result is quite different.
1.4.5 Animal husbandry

Every woman has a few chickens. These are usually left to search for their own food. However some women plant corn to feed the chickens. Many baby chicks fall victim to hawks and other predators shortly after they hatch because they are not protected.

Aside from raising chickens, there is little other animal husbandry. Dogs are kept for hunting, and are valued for that purpose.

1.4.6 House construction

Two types of house are constructed, the large communal house and individual family houses. The men build the houses.

The communal house

The communal house is square, 30–40 feet on each side (depending on the number of people who will occupy it), with a sloping thatched roof and low walls of split logs. Around the sides of the house are sleeping platforms about six feet off the ground. These are large enough for mats for the whole family.

When a communal house is built, all the men of the clan, as well as others identified with the clan, participate in building it. First the four main pillars are brought from the rain forest. Each is about eight meters long and requires a solid column of men to carry it. Upon reaching the village they notch the end to support a crossbeam. Each pole is then set in a deep hole, the four holes on the corners of a square. Two crossbeams are placed on opposing sides, and then the two others over these.

Lifting these beams into place is accomplished as follows: Four strong young men are chosen. (The strongest vie for the opportunity to show their strength in doing it.) They tie two long poles against each upright such that these cross right at the top. A large vine is attached to the beam, run over the pillar, and pulled by at least a dozen people on the other side. However, these people can only support the beam, not advance it. The four men push the beam up the poles, each man on one of the four poles, each with a loop of vine around his feet to help clench the pole. They push in concert and then rest; the people pull the vine, supporting the beam while the four men rest. In this way the beam is advanced to the top and pushed over into the notch. Once erected the poles are tied in place with strong vines.
To the framework so erected are tied poles that will support the roof and sides. Panels about three meters long are prepared for the sides and roof. These consist of the leaves of the ahi ‘carana’ palm woven and attached to long strips of the outer sheath of the *pona* palm. These panels are tied to the supporting poles from the bottom to the top, each overlapping the former (as shingles do). These roofs last about four or five years, depending on how close the panels are tied one to another.

After the new house is completed, the chief calls a big festival for all of his people to inaugurate the house and to gain the blessing of the supernatural powers. It is a great day of eating, singing, and dancing.

There are five or six communal houses on the Igará-Paraná River, one on the Putumayo River, three on the Caquetá River in Colombia, and four or five on the Ampiyacu and Yaguasyacu Rivers.

**Individual family houses**

A nuclear family house—in contrast to the communal house—is made like those typically found along the rivers in the Amazon basin: The floor and walls are made with the flattened hard outer sheath of the *pona* palm. The floor is about a meter and a half above the ground. The roof is made of woven ahi palm leaves. There are one or two bedrooms and an open porch.

Off to one side, under an adjoining roof, there is a cook house. A large fire table is made with a framework of poles filled with earth; this makes a nice hard surface on which to build a fire. (Some use old sewing machine treads and such things, propped on rocks or wood, to form a cooking surface.) A tripod made from poles serves to suspend the kettles. A hanging shelf constructed from strips of *pona* (to protect food from rats) and possibly a table complete the kitchen furniture.

Some families now have a mattress for the head of the house and some have bags, which they have sewn, filled with leaves or kapok gathered from the trees. Sometimes they make a mat from palm leaves. Most people still spread a sheet on the floor under a mosquito net. Whole families may sleep under one net. As the children grow, the family tries to buy more blankets and nets. A lamparina, a simple kerosene lamp, is left burning all night for protection against wild animals and the spirits. Log stairways may be pulled up or gates closed to keep dogs and animals out. Lots of people now make railings around their porches to keep small children from falling.

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11 This is probably not carnauba, despite the similarity of the local Spanish name.
There is no place for babies except in hammocks, so they are carried most of the time in a tô’hípà, a sling carried over one shoulder such that the child straddles the opposite hip. Traditionally this sling was made from bark cloth. Now it is usually made from any cloth.

1.4.7 Weaving

The men gather reeds and weave baskets and sieves, both for their own use and for sale. Everyone now weaves jicras ‘shoulder bags’ and hammocks to sell. These are made from the fibers of the chambira palm, which are twined by rolling along the thigh.

1.5 Dress and personal adornment

The Bora now wear western-style clothing. Some of this they purchase and some they sew themselves. Both the men and the women sew, either by hand or with a sewing machine. They enjoy beauty in attire as well as in ornaments such as bracelets and earrings.

In former times Bora men wore a loincloth made of bark cloth. Men (and women) used to wear sticks through their noses; some of the older people still have the holes in their noses, but no longer wear the sticks.

They used to—and to some extent still do—paint designs on their bodies. They painted their eyebrows black, as well as their lips, the area around their mouths, and a large stripe around their chins. Many still paint the typical Bora designs all over their bodies for festivals.

Until recent years, Bora men and women sewed all their own clothing. This was sewn from fabric acquired from the patrón or from river traders. Each household sought to acquire a sewing machine (which became a symbol of status). Due to the availability of presewn clothing throughout Peru, the importance of sewing machines has greatly declined.

Women used to wash their long, straight hair in huito, a plant dye that would make it shiny black. Indeed, some still use this. Now, however, many women have permanents, and large, showy hair ornaments have replaced the smaller traditional hair clips.

Whereas status was once shown by owning a sewing machine, it is now shown with radios, televisions, wrist watches, shoes for every member of the family, and gold in the teeth. For example, a lady with a toothache was once taken to a visiting dentist, who put in a white porcelain filling in the front of the woman’s mouth. She was outraged. She later saved enough money to go to Pucallpa and have gold fillings put in. Sometimes Bora people have gold crowns put on the front teeth, even though these are not needed.
1.6 Religion

Relatively little is known about traditional Bora religion. The chief, Mibeco, said that the evil thunder god splits trees from top to bottom with lightning, and then plants the life of a new animal in the ground. In this way, the wild and dangerous animals of the rain forest were created. Many of these animals, especially the jaguar, were believed to have special powers, which could harm people, or which could protect a clan. If the latter, the animal in question was not killed or eaten by members of that clan, and the clan’s shaman claimed that that animal gave him special power. The Bora did not worship such animals but respected them for their powers. They made appeasement offerings to the spirits of some animals. (This is also true of one type of tree, for which an offering was made before it was cut down.)

The shaman still follows these beliefs and employs the teeth of the jaguar to adversely affect others: he is said to cause the swelling of knee joints, with an eventual, very painful death. Several deaths in 1953 were attributed to such shamanistic practice.

While most Bora no longer observe the practices of the traditional religion, they still have a great fear of the shaman’s powers. The shaman was, perhaps, the most powerful man in Bora culture. He was feared, and was always paid for his assistance. Cultural change has diminished his power. With medicines available at the Posta Medica or from outsiders, the people call on the shaman less frequently.

It was the custom in the old days for the shaman to assign babies a protective totem, usually one of the following: dove, hummingbird, partridge, parrot, stork, panguano, partridge, paca, agouti. Each person expected to receive help from his totem. This naming practice and belief has declined due to the conversion of many Bora people to Christianity.

In 1984 or 1985 a six-year-old boy was caught in the claws of a jaguar of the type known as colorado. When the father came running with his shotgun, the jaguar was distracted, enabling the boy to get away. The father fired his only shell, but missed. The jaguar ran a short way off.

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13 Several years ago a man living at the mouth of the Sumún River was reported to have claimed ownership of the huangana, the peccary lacking the white stripe across its shoulder. He claimed to be able to talk to them when they came to his house. He demanded that hunters pay him when they killed one, or otherwise suffer the consequences.

14 These animals were regarded as good, while the deer, collared peccary (sajino), white-lipped peccary (huangana), tapir (sachavaca), owl, bat, and certain other animals were regarded as evil. The shaman also worked with the power of the evil animals.

15 This is about two feet high, four feet long, of a reddish brown color (without spots).
getting another shell from the chief’s house the father found the jaguar
and killed it. He then took the boy to Thiesens for medical attention. (His
wounds were many, but superficial.) Subsequently, the mother borrowed
money from her friends and relatives to take the boy to the shaman, to
have the boy freed from the smell of the jaguar, so that another jaguar
would not come back to get him. The people of the village ate the jaguar.

A festival is performed for the white heron, the ìʧʰú˝pà. This bird
is worshipped during the festival, and it is said that it actually speaks to
participants during the festival. (We know little more about this festival
because the Bora people are reluctant to tell about it, and we have never
been present when it was held.)

1.6.1 The boa constrictor

The Bora people have great respect for the boa constrictor. When a new
communal house is dedicated, a boa is painted on one of the large horizon-
tal logs of the framework of the house. It is believed that no one should
kill a boa. If, for some reason, someone must do so, he should first locate
a tall tree nearby, and wind a vine into a loop as used to support the feet
when climbing a tree. Then he should go kill the boa, run to the tree, put
the vine loop at the foot of the tree, and run off in the other direction. It is
believed that the spirit of the boa would follow him, seeking revenge, but
upon coming to the tree and seeing the vine, would deduce that he had
gone up to the upper world, and thus would stop pursuing him. It is also
believed that if a boa were shot with a gun, its spirit would damage the
gun so that it would never shoot straight again.

Boas pose a real threat to the Bora people. Once a woman was out hunt-
ing with her husband late at night. She waited in a canoe while her hus-
band followed the sound of an animal on the bank. He heard her scream.
When he got to the canoe, she was gone. The canoe was full of water and
the kerosene lamp was floating on the water. The people from the village
came and searched the area thoroughly, but she was never found. She was
almost certainly pulled from the canoe by a large boa. The woman’s father
ingested ayahuasca (a hallucinogenic vine) to have a vision to show him
where to find her. He reported seeing her, and said that she told him to
bring the church members to catch her. She was never found.
1.6.2 Burial

The bodies of deceased members of the chief’s family were formerly buried in the communal house; others were buried under their individual houses. Now, however, most people are buried in the cemetery, which is a short distance from the village. A coffin is made from whatever wood is available, sometimes even the door of a house.

There is a wake where people gather to show respect to the dead and/or to his family. Usually now, the pastor leads the people in singing hymns and may preach a sermon. The family of the deceased serve coffee to all who attend the wake. The body is buried early the next morning (weather permitting). Sometimes there is a service in the home before going to the cemetery, and sometimes just a brief graveside service.

1.7 Music

Bora music is pentatonic. Each melody belongs to a certain festival. The words may be changed to fit the situation of a particular festival, but a festival’s melody cannot be used in any other context. Apart from the festival songs and an occasional lullaby, there seems to be no other native Bora music.

Bora people have now adopted the eight-note scale, for example, singing hymns and choruses translated from western languages. Some have learned to play guitars. They enjoy accompanying their singing with tambourines and rattles.

1.8 The Bora signal drums

The Bora language has an elaborate tone system that, in conjunction with lexical and grammatical information, determines the pitch of each syllable. Messages can be communicated by beating the tones on suitably made drums, and this is still done in the larger villages.\(^{16}\)

The Bora people use drums to communicate messages within their communities and over long distances from one community to another. Every clan has a large communal house in which there is a set of signal drums, just inside and to the right of the main door. These drums play a very

\(^{16}\)This section was first drafted in 1955; for a published account see (Thiesen 1969). How messages are coded is described briefly in section 1.8.3.
important role in their social life. There is hardly a day when the drums are not used for some reason. Many days they are used numerous times and occasionally the sound of the drums can be heard throughout the day.

No matter where someone may be, so long as he or she is within hearing distance of the drums, the message will reach him. Early in the morning and late at night the drums can be heard as far as twenty miles away. If a message is to be sent a greater distance the next communal house relays it. In this way messages can—in a very short time—reach the whole group.

1.8.1 Various functions of the drums

The drums are used to call the people together for festivals, or to go fishing or hunting. They are used to inform the group of the arrival of visitors or to call someone back from his fields or from the rain forest, where he may be hunting.

When they prepare for a festival the drums are played to advise the people of the preparations in progress. For one festival the drums are played day and night for five days preceding the festival. There is a different message for each day that tells the people which part of the preparations is being done that day. When the festival starts, the drums are quiet. They are never used to accompany singing and dancing.

One interesting use of the drums is when they have a contest to see who can drink the most starch drink. Sitting on low stools near a large earthen vessel they dip into the liquid food pouring it down in big gulps in unbelievable quantities, until sitting becomes almost unbearable. The one who drinks the most goes over to the drums and announces his victory, giving the name of the victor and that of the loser.

Since the Bora people do not serve meals at regular hours, the drums are used to tell those at work or away from the house that dinner is ready. When a trader comes his arrival is announced on the drums. It is not necessary to send someone to advise the people. Those at greater distances hear the message as soon as those nearby, thus saving sometimes several hours. Soon the people begin coming with their produce to trade for merchandise.

The signal drums (manguaré) are not used to call people to school or church because—it is said—the drums belong to their traditional beliefs.\(^\text{17}\)

\(^{17}\)Instead, to announce school and church events, a bottle with the bottom broken out is blown like a trumpet.
1.8.2 How the signal drums are made

The drums are made in pairs from hardwood logs. Each is about five feet long; the smaller one, the “male” drum is about one and a half feet in diameter, while the larger “female” drum is about two feet in diameter; see plate 81 of Steward (1948), following page 762.

A slit is carved down the top of each drum, leaving vibrating panels on either side. One side is always made a bit wider than the other, so that the two sides yield different tones. The “mother” or “female” drum is larger than the other, so yields lower pitches. In sum, the two drums produce four distinct pitches.

It takes about a month to make each drum. After the tree has been cut down and shaped externally, a hole is started with an axe near each end of the log. Starting in these holes the log is very carefully hollowed by fire. Hardwood chips are placed in the holes and the fire is fanned with a feather fan. Every so often the charred parts are chipped out and the fire is rekindled. After the fire has penetrated the log some distance the fire is directed with a bamboo blowpipe to burn in the right places and the finished edges are protected with wet clay (that must be replaced frequently). Finally, accompanied by a special ceremony, a slit is cut to one side of center between the two holes.

Short clubs are carved and covered with latex gathered from the rain forest and cured over a fire.

The two drums are suspended parallel, the ends higher on one end than the other. As one faces the higher end, the larger drum is always on the right. The drummer stands between the drums, facing the higher end, and strikes them with the latex-covered clubs.

1.8.3 How messages are drummed

Because each drum has two pitches (one on each side of the slit) the pair of drums has four pitches. However, messages are sent using only two contrastive pitches (tones). Although all four pitches are sometimes used in the festival announcement songs, at any given time only two are contrastive.

The system of communication is based on Bora’s syllable structure and tone system. Each syllable in a word has either a high or low tone and receives a corresponding high or low tone beat on the drums.\(^\text{18}\) Thus, the

\(^{18}\text{Here, “syllable” refers to surface syllables after the application of rules like PLTS and FLTS; see pages 70 and 74.}\)
order of the high and low tones is the means by which a message is sent and understood. For example, 1b is drummed as in 1a (with no extra pause at word boundaries).

(1) a. H L H H L L
    b. ʔí kʰòːkʰáɾɛ́ tìʧʰà ‘Come here now!’
       Ícyoocářé dicha

Because many words have identical tone and syllable patterns it is necessary to have standardized phrases. A given message may have a number of different phrases; these may be repeated several times and in varying orders, but the word order within each phrase is rigid.

How someone would be called to come is illustrated in table 1.1. First, the call notice is drummed. This varies depending on whether one or more than one person is being called, and on whether the person (or persons) is instructed to come immediately or at their convenience. Second, the name of the person or persons being called is drummed, first the clan name and then the personal name (or names). Finally, the purpose for wanting the person(s) to come is drummed.

Table 1.1 A Bora drum message: Come to sing!

<table>
<thead>
<tr>
<th></th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL H H LL</td>
<td>í kʰòːkʰáɾɛ́ tìʧʰà</td>
</tr>
<tr>
<td>ícyoocářé dicha</td>
<td>‘Come here now!’</td>
</tr>
<tr>
<td>right.now</td>
<td>come.Sg</td>
</tr>
<tr>
<td>HL H L L L</td>
<td>íɲɛ̀hɛ́ tʰɯ̀tʰáβàːpɛ̀ tìʧʰáˀpà</td>
</tr>
<tr>
<td>Íñejé</td>
<td>Llicyáhba</td>
</tr>
<tr>
<td>clan.name</td>
<td>name</td>
</tr>
<tr>
<td>HL H H LL</td>
<td>í kʰòːkʰáɾɛ́ mɛ̀máˣʦʰíβàkʰì</td>
</tr>
<tr>
<td>ícyoocářé dicha</td>
<td>memájtsívaki</td>
</tr>
<tr>
<td>right.now</td>
<td>come.Sg</td>
</tr>
<tr>
<td>HL H H L L</td>
<td>mɛ̀máˣʦʰíβàkʰì</td>
</tr>
<tr>
<td>memájtsívaki</td>
<td>for.to.sing</td>
</tr>
</tbody>
</table>

It is particularly interesting that drum communication does not exploit the distinction between short and long vowels, or between heavy and light syllables. Although no study has been made of the effectiveness of drum communication (what range of messages can be communicated, if techniques are used to increase redundancy, how frequently “repairs” must
be made, and so forth), it is clear that some level of communication is possible. For example, Thiesen once needed his tape recorder, which was in a downriver village. Knowing that someone was travelling upriver, he had a drummer ask that the traveller bring it. Thiesen got what he had requested. On another occasion the chief from a downriver village drummed to the chief from an upriver village, asking him to send something down with Thiesen (who was travelling downriver).
Chapter 2

Phonology

This chapter deals with Bora’s sound system: its phonemes, its syllables, vocalic length, and so forth. Tone is dealt with in chapter 3.

2.1 The Bora writing system

The Bora writing system uses the following letters: a for /a/; b for /p/; c (written before a, o or u) or k (written before i, ɨ or e) for /kʰ/; ch for /ʧʰ/; d for /t/; ds for /ʦ/; e for /ɛ/; g for /k/; h for /ʔ/; i for /i/; ɨ for /ɨ/; j for /h/ (syllable initial) or [ʰ] (syllable final); ll for /ʧ/; m for /m/; n for /n/; ñ for both /ɲ/ (a phoneme) and [ɲ] (an allophone of /n/); o for /o/; p for /pʰ/; r for /ɾ/; s for /ʦʰ/; t for /tʰ/; ts for /ʦʰ/; u for /u/; v for /β/; w for /kp/; and y for either /j/ (the palatalized counterpart of /ɾ/) or the palatalization of a preceding consonant.

There are two tones: high and low. High tone is indicated by an acute accent over the vowel. Low tone is indicated by the absence of an accent. (In the phonemic representations, low tone is indicated by a grave accent.)

Vowel length is represented by doubling the vowel, e.g., aa represents /aː/ and áá represents /aː/ with a high tone. However, if the adjacent vowels bear different tones, then they represent different syllables, e.g., aá represents /a.á/ and áa represents /á.a/. (There are a few exceptions; see example 7 and discussion below.)
2.2 Syllables

The syllable is defined by the template in 2:

\[(2) \text{(C)} \ V \left\{ \begin{array}{c}
\times \\
\cdot
\end{array} \right\} \]

That is, syllables begin with an optional consonant, followed by an obligatory vowel, either short or long. A syllable may be closed by /ˀ/ (orthographic h) or /ˣ/ (orthographic j). Examples follow:

3. a. à.móː.pè (amóóbe) V.CV.:CV ‘fish (sg)'
   b. à.mó.mè (amóme) V.CV.CV ‘fish (pl)'
   c. òː.ʔíː.pʲɛ̀ (oohííbye) V.:CV.:CV ‘dog’
   d. màˣ.ʧʰò (majcho) CVˣ.CV ‘eat’
   e. nàˀ.pè (nahbe) CV².CV ‘brother’

Generally, /ˀ/ and /ˣ/ occur in the coda of a syllable only if it has a short vowel.¹ Thus, there are three ways to make a syllable heavy: /ˀ/, /ˣ/, and vowel length. (See section 2.7.2 for further discussion.) These are represented in figure 2.1, where σ represents a syllable and µ represents a mora:

```
light                  heavy
========              ============
| \ / | \ / | \ / | \ / |
| \ / | \ / | \ / | \ / |
| µ | µ | µ | µ | µ | µ |
C V C V x C V ? C V /
```

Figure 2.1 Light and heavy syllables

¹The way Bora is written may mislead one to think that a word has a syllable final /ˀ/ after a long vowel, but it is not so. For example, what is written mááhdohíjcyáh is really má.aˀ.tö.ʔì.ʧʰáˀ, in which the first syllable is (an allomorph of) the proclitic or prefix mé-'SAP'. Likewise, fìíbotoháñeri ‘with his/her coverings’ is f.i.ʔ.ʔì.ʔá.ʔè.ʔì by the addition of i- ‘self’, and dìíbota ‘your covering’ is ti.i.ʔ.ʔì.ʔì by the addition of ti- ‘your’.

The following have /ˀ/ after two homorganic vowels but they are not cases of a long vowel followed by /ˀ/ because the vowels bear different tones and thus form two syllables:

| áb’ì’háâ | (átsihiyáâ) | v.cv.v CV.v CV.v |
| fùúú’háâ | (fìbuúhìáâ) | v.cv.v CV.v CV.v |
| imíkùí’háâ | (imíwùuhjáâ) | v.cv.v CV.v CV.v |
| màá’tós’òifstreaḿl’háûró (maáhdótsohíjcyátyuró) | CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v |
| mèc’ti:bàfì’k’úapé (meéhdíválehhíjcyáává) | CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v |
| múnaá’háâ | (múnaáhháâ) | CV.v CV.v CV.v CV.v |
| núp’há’k’ûjó (núpájikililó) | CV.v CV.v CV.v CV.v |
| kpáp’hùjúník’hù:bé’hí (wápíyuúcúúbeèhí) | CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v CV.v |

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The tone system is blind to vowel length: where tones dock depends on syllables, with no regard for whether these have short or long vowels. However, there is an allophonic process that relates tone and length; see section 3.1. Adjacent homorganic vowels bearing different tones are illustrated in 4–6a and those bearing the same tone are illustrated in 4–6b. (The form between slashes indicates a more underlying form before the long vowel has been “split” by PLTS; see section 3.14.)

(4) a. ti.i.pʲè /tii:pʲè/ (dííbye) CV.V.CV ‘he’
   b. tː.pʲè ěᵣnɛ́ /tːpʲè ěᵣnɛ́/ (dííbye éhne) CV:.CV ‘his (thing)’

(5) a. taábo
tʰːá.á.pò /tʰːápò/ CV.V.CV ‘medicine’
   b. taabóóbe
tʰːá:pːpè /tʰːıpːpè/ CV:.CV:.CV ‘the doctor’
   c. tááboóbe
tʰːá.pːó.ːpè /tʰːápːóːpè/ CV:.CV.CV ‘he medicates’

(6) a. cuúmu
kʰːú.ú.mɯ́ /kʰːúmɯ́/ CV.V.CV ‘large signal drum’
   b. cúúmuba
kʰːú.mɯ́.pà /kʰːúmɯ́pà/ CV:.CV.CV ‘small drum’

There are a few cases where adjacent, homorganic vowels with the same tone represent different syllables. The root kpáje ‘to rest’ ends in two like vowels, each projecting a syllable. In 7, note that -ːβɛ̀ ‘sǐn’ lengthens only the second of the two vowels:

(7) a. ó kpájɛ́ːβɛ̀-tʰɛ́-ʔi (Ó wáyeéévetéhi.) ‘I go to rest.’
   I rest-sīną-go.do-(t)
   b. ó kpájɛ́ːβɛ́-βá-ʔi (Ó wáyeéevéváhi.) ‘I come to rest.’
   I rest-sīną-come.do-(t)
   c. kpájɛ́ːβɛ́ (jWáyeééve!) ‘Rest!
   rest.imp-sīn
   (sg imperative)’

Another example is kpà:kóò ‘throw’. By contrast, the final /uː/ of ɨhú: ‘dove’ is a single syllable with a long vowel, but may be followed by the classifier -u (round) as in examples 85a and c, page 71.

2.3 Vowels

The vowels are given in table 2.1. The symbols in parentheses are those used in the Bora writing system.
### Table 2.1 Vowels

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i (i)</td>
<td>i (i)</td>
<td>u (u)</td>
</tr>
<tr>
<td>mid</td>
<td>e (e)</td>
<td></td>
<td>o (o)</td>
</tr>
<tr>
<td>low</td>
<td>a (a)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a/o* is the only rounded vowel and is only slightly round. /u/ (u), by contrast, is unrounded.

With the exception of /i/, which is tense, all the vowels are lax. /a, e, i/ and /o/ are pronounced as [a], [ɛ], [i] and [o] respectively. Examples follow:

(8) a. àmómè (əmóme) ‘fish’
    b. ò:ʔíːpʲɛ̀ (oohííbye) ‘dog’
    c. kʰáːnìí (cáánií) ‘father’

/i/ (i) is a high central unrounded vowel, as in 9:

(9) a. ūhì (uji) ‘plantain’
    b. iːhù (iːju) ‘horse’
    c. iːhùuù (iːjuu) ‘dove’

/u/ (u) is a high back unrounded vowel, as in 10:

(10) a. kʰùúmù (cuúmu) ‘drum’
    b. úú (uú) ‘you’

See (Parker 2001) for a thorough discussion of the vowels.

### 2.3.1 Rules applying to vowels

The following rules account for certain variations in the vowels.

1. /i/ is lowered when its syllable is closed by [']. For example, iːkʰà ‘to be’ is pronounced [iːkʰa]; its initial /i/ is lower than that of ëhˈà ‘this house’, in which the /h/ following the /i/ is the onset of the next syllable. The pronunciation of /i/ as [i] is not written in the phonetic representations throughout this grammar.

/i/ becomes /i/ when the following syllable has /i/. For example, compare 11a and b:

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2.3. VOWELS

(11) a. í-h'âá (íjyaá) ‘this (house, clothing,...)’
   this-⟨shelter⟩
b. í-hí (íyi) ‘this (pill, country,...)’
   this-⟨disk⟩

For another example see ítsʰːmɛ̀ ‘self’s children’ in examples 471 and 472, page 209.
Likewise, the proclitic ti ‘your’ becomes ti immediately before a syllable containing /i/; witness 12:
(12) /tɨ ni:tsʰú-kpâ/
    [tɨ́ nɨ̀ːʦʰɯ́k pà]
    (dɨ́ nɨɨtsúwa) ‘your machete’

This assimilation also occurs internal to morphemes, as in ts:i:tsi ‘money’; we know of no morpheme in which /i/ precedes /i/.

2. /ɛ/ is raised before /i/; for example, the /ɛ/ of kpákʰimʲɛ́ ‘work’ is [ɛ], whereas it is [ɛ] in úmɛʔɛ̀ ‘tree’.
/ɛː/ becomes [æː] before a syllable containing /i/; for example /mɛːni/ ‘pig’ is pronounced [mæ̀ǽnì]. (/æː/ becomes [aː] by PLTS, as discussed in section 3.7.1.)

In some cases, when /ɛ/ is followed closely by /a/, it becomes /a/. For example, witness the alternation between mɛ- ~ ma- ‘our’ in 13:
(13) mrequent(ɛ)
    aʃ-áβɛ̀hɯ̀-ːpɛ̀ (mrequent)  ‘our chief’

3. In a few words /a/ becomes [ɔ]; for example the /a/ of phámɛ̀ːɾɛ̀ ‘all animate’ is pronounced [ɔ]: [pɔ́mæ̀ǽrɛ̀]. This seems to happen only before nasal consonants, and in relatively few words. (There is no contrast between [a] and [ɔ].)

4. A transitional [y] can sometimes be perceived between an [i] and a following [a]; for example, íáːpɛ̀ ‘animal’ may be pronounced [iyáːpɛ̀].

2.3.2 Vowel length

Bora has both short and long vowels (as amply attested throughout).

Certain suffixes lengthen the preceding vowel. For example, when -ːpɛ (SgM) is suffixed to a stem, the stem-final vowel is lengthened, as occurs twice in 14:
(14) Oke ájcuube oohíbyedívu.
    ò-kʰɛ̀ ákʰù-pɛ̀ ò:tː-pʾɛ-ːt-βù ‘He gave me a dog.’
    I-objAn give-(SgM) dog-(SgM)-anim-thm

This long vowel may become two syllables by PLTS (discussed in section 3.7.1, as in 15:}

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(15) /máʰʧʰ-ːpɛ̀/ [máʰʧʰ-ːpɛ̀] (majchoóbe) ‘he eats’

eat- ⟨SgM⟩

Other suffixes that lengthen preceding vowels are -ːkʰɯ ‘duIn’, 1⃝-ːnɛ ‘plural’ -ːpʰi ⟨SgM⟩, -ːpʰi ‘only’, in some contexts -1⃝(x)hê ⟨AnPl⟩, and -1⃝:pɛ ‘sin’.

If the verb ends in a long vowel, such a suffix does not further lengthen it. We might posit a rule that deletes the verb’s length but this is not necessary: The mora contributed by the suffix can not be syllabified because the syllable template allows only two mora; see section 2.2. Thus, it is lost by “stray erasure”:

\[
\begin{array}{c}
\sigma \\
| \\
\mu + \mu \\
\sigma \\
\end{array} 
\Rightarrow 
\begin{array}{c}
\sigma \\
| \\
\mu \\
\mu \\
\sigma \\
\end{array}
\]

C V C C V C

For example, 16a shows that tsʰa:- ‘come’ has a long vowel. However, in 16b, where it is combined with -ːpɛ, this remains /aː/, which becomes /ɑː/ by PLTS (see section 3.7.1):

(16) a. tsʰa:-mûtsʰi (tsáámutsi) ‘they (DuM) come’
   b. tsʰa:-ːpɛ (tsaábe) ‘he comes’

Examples 17a and b show that the root ends with a long vowel, while 17c shows that the addition of a suffix that ordinarily adds length does not result in three moras:

(17) a. pʰɛː-ːfɛ̀ → /pʰɛːːfɛ̀/ [pʰɛːɛ́fɛ̀] (peélle) ‘she goes’
   b. pʰɛː-mɛ̀ → /pʰɛːmɛ̀/ [pʰɛːɛ́mɛ̀] (peéme) ‘they go’
   c. pʰɛː-ːpɛ̀ → /pʰɛːːpɛ̀/ {*[pʰɛːɛ́pɛ̀]} (peébe) ‘he goes’

And as a final example, consider -hɯkʰoː ‘initiated or very recent’. Example 18a shows only a single long vowel where three moras might be expected; examples 18b–d show that this suffix does indeed end in a long vowel:

(18) a. màʰʧʰ-ːhûkʰ-ːpɛ̀ (majchójúcoóbe)
   /máʰʧʰ-ːhûkʰ-ːpɛ̀/ ‘he has eaten’
   b. màʰʧʰ-ːhûkʰ-ːtfɛ̀ (majchójúcoólle)
   /máʰʧʰ-ːhûkʰ-ːtfɛ̀/ ‘she has eaten’
   c. màʰʧʰ-ːhûkʰ-ːmɛ̀ (majchójucóóme)
   /máʰʧʰ-ːhûkʰ-ːmɛ̀/ ‘they have eaten’
   d. màʰʧʰ-ːhûkʰ-ːmûtsʰi (majchójúcomútsi)
   /máʰʧʰ-ːhûkʰ-ːmûtsʰi/ ‘they(DuM) have eaten’

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2.4 Consonants

The consonants are given in table 2.2.

<table>
<thead>
<tr>
<th>obs(^a) len for len pal for pal lab-vel fric plain pal nas plain pal res plain pal</th>
<th>labial</th>
<th>coronal</th>
<th>dorsal</th>
<th>laryngeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p (b) p(^h) (p) p(^l) (by) p(^lh) (py)</td>
<td>t (d) t(^h) (t) t(^l) (dy) t(^lh) (ty)</td>
<td>ts (ds) ts(^h) (ts) ts(^l) (\sim) t(^l) (ll) ts(^lh) (\sim) t(^lh) (ch)</td>
<td>k (g) k(^h) (k or c) k(^l) (gy) k(^lh) (ky) kp (\sim) k(^w) (w)</td>
<td>? (h) ?(^l) (hy)</td>
</tr>
<tr>
<td>(\sim)</td>
<td>(\sim)</td>
<td>(\sim)</td>
<td>x (\sim) h (j)</td>
<td>(\sim)</td>
</tr>
<tr>
<td>(\sim)</td>
<td>(\sim)</td>
<td>(\sim)</td>
<td>h(^l) (jy)</td>
<td>(\sim)</td>
</tr>
</tbody>
</table>

\(^a\)obs = obstruent, len = lenis, for = fortis, pal = palatal, lab-vel = labial-velar, fric = fricative, nas = nasal, res = resonant

\(^b\)Or possibly r\(^l\).

Discussion follows. However, we will leave open various questions about the phonemic status of certain sounds: (1) Which palatalized consonants are allophones of the corresponding nonpalatalized consonant? Some instances are probably allophones while others are phonemes in their own right. (2) Is \[^\dot{r}\] an allophone of /ʔ/, with which it is in complementary distribution? (3) Is \[^\dot{x}\] an allophone of /h/, with which it is in complementary distribution?

/p/ (orthographic b) and /p\(^h\)/ (orthographic p) differ by aspiration, as in the following pair:

(19) a. p\(^h\):pë (peébe) ‘he goes’
   b. pë:pë (béébeé) ‘the new one’

/t/ (orthographic d) and /t\(^h\)/ (orthographic t) differ by aspiration, as in the following pair:

(20) a. t\(^h\):të (daáchi) ‘his son’
   b. të:të (taálle) ‘she cries’

/ts/ (orthographic ds) and /ts\(^h\)/ (orthographic ts) differ by aspiration, as in the following pair:

(21) a. ts\(^h\):tsë (tsëtsë) ‘white button’
   b. tsë:tsë (dsëdsë) ‘coin’
/ʧ/ (orthographic ll) and /ʧʰ/ (orthographic ch) differ by aspiration, as in the following pairs:
(22) a. ʧʰ'em:pe (chémeébe) 'he is sick'
       b. ʧe:n:pe (llééneébe) 'he eats fruit'
(23) a. ʧʰ:i (ičii) 'here'
       b. ʧii (illii) 'his/her son'

/ʧʰ/ (orthographic ch) contrasts with /tʰ/ (orthographic ty), as in 24:
(24) a. āʧʰ:i (āachi) 'outside'
       b. ā:tʰɛ̀ (ātye) 'those'

/k/ (orthographic g) and /kʰ/ (orthographic c before a, o or u but k before e, i or i) differ by aspiration, as in 25:
(25) a. k̂:kʰomɛ̀ (goocóme) 'they laugh'
       b. kʰ:τuŋu:kʰo (cāhğúno) 'cahuana (starch drink)'
       c. kʰ:kʰi:j'hɛ̀ (kikiíjye) 'bat'

/kp/ (orthographic w) is a voiceless labial-velar stop, as in 26:
(26) a. kpáːáɾɔ̀ (waháro) 'mother'
       b. ʃ:kpá:há:kʰú-ːʔi (ó waajácúhi) 'I know-(t)'

There are interesting restrictions on /kp/ (w). First, it only occurs before /à/ or /u/ (u). Second, it never undergoes palatalization (see section 2.4.2). For example, we expect palatalization after /i/ but that does not happen with /kp/: imíwu imíkphpù 'very good'. Third, generally neither /ʃ/ (h) nor /ʃ/ (j) (preaspiration) may precede /kp/, but a long vowel may, as in èː-kpà (that-(slab)) and ìmí:ː-kpà (proper-(slab)).

/β/ (orthographic v) is a voiced labial fricative, as in 27:
(27) a. rēβó:βɛː-pɛ (révóóveébe) 'he turns around'
       b. β̃há:háːβ (vajááve) 'to become punctured'

/h/ (orthographic j) may occur as the onset of a syllable, at the beginning of a word, as in 28a, or in the middle of a word, as in 28b:
(28) a. hàá (jaá) 'house'
       b. kpá:hákʰu (waajácu) 'know'

/x/ (orthographic j) is preaspiration. It occupies the coda of the syllable before an aspirated consonant (see section 2.4.3), as in 29a, or it may be word final as in 29b:
(29) a. māʧʰ:ò (majcho) 'food'
       b. mā:xʰ:óhúx (majchójuy) 'eat (hurriedly)'

/x/ in the syllable coda is pronounced with greater friction than is /h/ in the onset.

2Since x is in complementary distribution with /h/ it might be considered an allophone of /h/.
The preaspiration of the initial consonants of certain roots, when these roots head the genitive construction, are syllabified with the final syllable of the preceding word (the possessor); see section 2.4.3. 

/ʔ/ (orthographic h) is discussed in 2.4.1.

/m/ (orthographic m) is a labial nasal; e.g., méːnimù (méénimu) ‘pigs’.

/n/ (orthographic n) is an alveolar nasal; e.g., méːnimù (méénimu) ‘pigs’.

/ɲ/ (orthographic ŋ) is an alveolar nasal with a palatal offglide; e.g., háʔàŋe (jáhañe) ‘various houses’. 30 shows the contrast between /n/ and /ɲ/: (30) a. ǹàmè (name) ‘type of monkey’
   b. ńàmà (ńama) ‘to bewitch’
Although /ɲ/ is a phoneme, in some contexts it might be considered an allophone of /n/.

/r/ (orthographic r) is a voiced alveolar flap. The corresponding palatalized form is the palatal approximant [j] (orthographic y). It occurs in the environment of /i/ (but never of /ɨ/); for example:

(31) a. mijímíjí (miyímíyi) ‘eyes half closed’
   b. βiːjíβɛ̀ (viyíívye) ‘to rotate’
   c. a ñiːjíñò (llihíyo) ‘father’
   d. roːʔò ~ jòːʔò (roóho) ‘mole cricket’

[j] may also be a phoneme in its own right; in the words of 32 it occurs despite not being in an environment in which /ɾ/ is palatalized:

(32) a. ájánɛ́kpù (áyánéwu) ‘a little’
   b. jòːʔìí (yóóhií) ‘type of parrot’

In the vast majority of cases, however, orthographic y represents either (1) a palatalized /ɾ/ or (2) the palatalization of a preceding consonant [C’], as discussed in section 2.4.2.

2.4.1 The glottal stop

The glottal stop /ʔ/ (orthographic h) may be the onset of a syllable, as in 33 where the syllable boundaries are indicated by a period.3

(33) a. ʔɛː.kʰò.ó (héécoó) ‘meat’
   b. ú.mí.ʔè (úmihe) ‘planted field’

[ʔ] (also orthographic h) may also occur as the coda of a syllable, either before a consonant, as seen in 34, or word finally.

(34) a. f’.ná.ʔò.ó (áhnáhoó) ‘power’
   b. àʔ.tò (ahdo) ‘pay’

3Intervocalic /ʔ/ is always a syllable onset.
When pronounced in isolation, words that begin with a vowel are pronounced with an initial glottal stop, and words that end with a vowel are pronounced with a final glottal stop. For most words, these glottal stops disappear when the word is pronounced within a phrase.

Word initially ʔ (h) is written only in words where the glottal stop persists within a phrase. Word finally ʔ is never written, even those that persist in a phrase. For example, what is written as 35a is pronounced as in 35b:

(35) a. Muurá tsá dibye ímíletú ipyééneé.

b. mûːrəʔ tsʰáʔ tipʰé ímíʧé-tʰú i pʰéː-ːnɛʔ?
confirm not he want-neg self go- ⟨∅⟩
‘Well, he does not want to go.’

When a morpheme ending in ʔ is followed by one beginning with /ʔ/, the adjacent glottal stops are pronounced as a single one. For example, ʔ-
‘this’ followed by -ʔamí (leaf) (book, paper,...) becomes simply ʔámí: ‘this leaf (book, paper, etc.).’

Several interjections have a final glottal stop, even sentence medially, for example:

(36) ânɛʔ mɛɛ nú (ané meénu) ‘OK. Then do it.’
ânɛʔ kpàí mɛɛ nú (ané wai meénu) ‘OK. Then you may do it.’

(37) Cánâ bo dipye ʃišúíí.

kʰánâʔ póʔ tì-pʰè ʃikʰúíí ‘I encourage you to suggest encourage youImp-go quickly go quickly.’

Many onomatopoeic words end with a glottal stop:

(38) Callúhcállú keème tsáá juuváyi.

kʰàʧí español kʰàʧí español kʰè:mè tsʰáʔ-ʔì hùrβá-jì
tap-tap old.man come- ⟨t⟩ trail-obln
‘The old man is coming on the trail with a cane (stumbling along).’

Some words have short forms that end in a glottal stop; e.g., tsʰáʔáá ~ tsʰáʔ ‘no’.

---

4 This contrasts with àtò ‘drink’.
5 This convention was established because writing these cases of h was found to be both unnecessary and confusing to Bora readers.
6 These are generally not written.
2.4. CONSONANTS

2.4.2 Palatalization

All consonants except /kp/ (w) have palatalized counterparts. Even /ʔ/ (h) may be palatalized, for example, ʔà ‘probably’.

Consonants are often palatalized after /i/, as in (39):

(39) a. ŋí-pːɛ̀ (that-(SgM) diibye) ‘he’
    b. ʔí-mːɛ̀ (dog-(AnPl) oohímye) ‘dogs’

However, consonants are not always palatalized after /i/, e.g., the /m/ of ímíʧʰò ‘to encourage’ is not palatalized. Likewise, in 229, page 131, neither /ʔ/ nor /m/ are palatalized after /i/ in the word íʔhí-múʔ-kʰɛ̀. See also example 404, page 194.

Consonants are also palatalized after some instances of /a/, as in (40):

(40) a. átʰáːpá (átyáábaá) ‘my wife’
    b. áβʱɛ́nɛ̀ (avyéne) ‘it hurts’

Aschmann reconstructs these words as containing /ʰai/, thereby accounting for why consonants following these cases of /a/ cause palatalization. Consequently there are now minimal pairs that demonstrate contrast between palatalized and nonpalatalized obstruents. For example, palatalization distinguishes the conjunction in 41a from the demonstrative pronoun in 41b:

The palatalization of a consonant is represented orthographically by a y following the consonant except in the following cases:

<table>
<thead>
<tr>
<th>Plain</th>
<th>Palatalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>j</td>
</tr>
<tr>
<td>n</td>
<td>ŋ</td>
</tr>
<tr>
<td>tsʰ</td>
<td>ʧʰ</td>
</tr>
<tr>
<td>ts</td>
<td>ʧ</td>
</tr>
</tbody>
</table>

Aschmann (1993:18, section 2.1) writes the following about /ʰai/:

...this diphthong caused the palatalization of a following alveolar consonant.... Subsequent to this process (or simultaneously), *ai was reduced to /a/ when followed by one of these palatalized alveolar consonants, thus effectively phonemicizing these consonants through the loss of the conditioning environment.

In Bora there are one or two words that preserve the diphthong, for example, kpaʧe ‘woman’. Although the [ʧ] is pronounced in this word, it is written simply as wale.
(41) a. àː-pè tsʰáː-ː. (Aabe tsáá.) (anaphoric)
   thm-(SgM) come-(t)
b. à-ːpè tsʰáː-ː. (Aabye tsáá.) (exophoric)
   that-(SgM) come-(t)
a. ‘That one (aforementioned) comes.’
b. ‘That one (indicating) comes.’

Further examples of this contrast follow:
(42) a. màˣʦʰì (majtsi) ‘song’
   màˡʧʰì (majchi) ‘juice’
b. kpàˣkʰò (wajco) ‘flower’
   kpàˡkʰò (wajcyo) ‘hook’
c. kpápɛ̀ákʰò (wábeáco) ‘to fold (double)’
   kpáˡpɛ̀ákʰò (wábyeáco) ‘to entangle’

Because palatalized consonants have now become independent phonemes (in at least some contexts) they may now appear where no preceding vowel accounts for the palatalization; such is the case of the initial tʰ in tʰájáhɨ̀ (tyááyajɨ) ‘peccary’, and for the /ñ/ of náhá’kʰò (ñajáhco) ‘softness, be soft’.10

Bimorphemic words such as (tahjya) tʰàˀ-hʲà (my-house) ‘my house’ show palatalization across a morpheme boundary.11

Consonants directly preceding /i/ or /ɨ/ are not generally palatalized; for example, the /m/ of iǐᵐípɑᵗʰʲ-ò-kʰî (iǐmibójchoki) is not palatalized by the following /i/.

/i/ becomes j (y) only after /i/, never after the /a/s that are reconstructable as /*ai/. Example 43 involves the suffix -ɾè (-re) ‘only’:
(43) a. òó-ɾè (oóre) ‘only I’
   b. ɪ̀-jè (iíye) ‘only he himself’

10 See also the following entries in (Thiesen & Thiesen 1998): dyee, dyéhpiyi, dyíy-iye, dyuu, kyehehì, kyehejco, kyehejkyéhe, kyéhikimyéi, ñáhi, ñáhiñáhi, ñáhiívye, ñáhiívyetso, ñáhi, ñáhiátso, ñáhiñáho, ñá, ñáj, ñája, ñáñája, ñama, ñámaj, ñámáwa, ñáya, ñáyaj, ñáyáco, ñayáñáya, ñayááve, ñóheñóco, ñóheñórcu, ñóheñótsco, ñóheñótsç, ñó, ñóihjyúcu, ñójáhco, ñójàñója, ñòmi, ñòmiître, ñòñi, ñòññóñó, ñóóo, ñóyoůíve, ñúhiúcunu, ñúhiúyve, ñúmiñúmi, tyajtá, tyekéyéke, tyócoáhco, tyocástõçcyá, tyóeyeb, tyóeyeb, tyóóñójì, tyúhûmì.

11 tʰàˀ-há ‘my house’ contrasts with tʰá’há ‘to win’. Remarkably, the various allomorphs of ‘my’ (tʰá’ ~ tʰa: ~ tʰa) do not consistently palatalize the following consonant. tʰà’há ‘my house’ shows that tʰá’ causes palatalization. In i., tʰà: does not palatalize the following consonant, while tʰa- sometimes does, as in ii, and sometimes does not, as in iii:
   i. tʰá: G kʰáni (tá cáádi) ‘my father’
   ii. tʰá na’pɛ̀-mù (táñahbêmu) ‘my brothers’
   iii. tʰá mɛ́ni (tamééni) ‘my pig’
Example 44 involves the suffix -rà (-rə) ‘frustrative, contraexpectation’:

(44) a. ó máxʧʰô-rá-ʔì (Ó májchoráhi.) ‘I ate, but not well.’
    I eat-frs-(t)

   b. ó máxʧʰô-i-já-ʔì (Ó májchóiyáhi.) ‘I would like to eat,
    I eat-fut-frs-(t) but can’t.’

/n/ becomes ɲ after /i/. For example, in 45 the classifier /-nɛ̀/- ⟨ø⟩ becomes [-ɲɛ]:

(45) í-ɲɛ̀ (iñee) ‘this thing’
    this-⟨ø⟩

This is a regular process only after /i/.\(^{12}\)

/tsʰ/ (ts) becomes /ʧʰ/ (ch) only in some cases after /i/. For example, in the dialect of the Iñeje clan the root ‘come’ palatalizes; compare the unpalatalized 46a with 46b, palatalized by the /i/ of ti - (di-) ‘imperative singular’:

(46) a. ó tsʰá-ʔì (Ó tsááhi.) ‘I am coming.’
    I come-frs-(t)

   b. tíʧʰ àá (Díchaá.) ‘Come!’

However, in the other Bora clan dialects this root is invariablyʧʰaː (chaa).

Likewise, in some Bora dialects the causative suffix -ʦʰo becomes -ʧʰo after /i/; e.g., àníxʧʰò ‘to make thinner’,\(^{13}\) ímíʧʰò ‘to encourage’.\(^{14}\)

Palatalization by /i/ or /a/ is not blocked by an intervening syllable-final /s/ or /ʃ/.

(47) a. icrastʰà (ijcyä) ‘to be’
      I be-⟨sp⟩

    b. iʧʰù (ihdyu) ‘like that’

(48) a. àkʰè (ajkye) ‘get up’
     I get-⟨sp⟩

   b. tʰàhʲà (tahjya) ‘my house’

[ʔʲ] (orthographic hy) has two sources. It may represent either a palatalized glottal stop as in 49a or a glottal stop followed by j (palatalized r) as in 49b:\(^{15}\)

(49) a. íʔʲɛ̀ɛ́ (íhyeé) /í-ʔɛ̀/ this-⟨tree⟩
    I am only

   b. ímíʔʲɛ̀ (imíhye) /ímíʔ-ɾɛ̀/ good-only

\(^{12}\)It also sometimes happens after /a/ as in aɲu ‘buzzard’. This is probably due to this /a/ being a reflex of */ai/, as discussed above.

\(^{13}\)Compare ájâ’tsʰò ‘to make smaller’, where it does not palatalize.

\(^{14}\)To this list we might add imípʰai-tsʰò (good-become-caus) ‘fix, arrange’.

\(^{15}\)We are—obviously—assuming “grammatical prerequisites to phonemic analysis.”
There are some mysteries regarding palatalization. For example, consider the verb ‘to bag, to blister’ in table 2.3. In the singular, transitive form, the root’s second /p/ is palatalized, but in the other forms this palatalization shifts to following morphemes.

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>MULTIPLE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>transitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pàpáːβɛ̀</td>
<td>pàˀpápʲà</td>
<td>‘to blister’</td>
</tr>
<tr>
<td>(babáávye)</td>
<td>(bahbábya)</td>
<td></td>
</tr>
<tr>
<td>intransitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pàpáːβɛ̀</td>
<td>pàˀpápʲà</td>
<td>‘to blister’</td>
</tr>
<tr>
<td>(babáávye)</td>
<td>(bahbábya)</td>
<td></td>
</tr>
</tbody>
</table>

Further consider the verb for ‘stretch out the leg’ in table 2.4:

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>MULTIPLE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>transitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kʰàkpáːβɛ̀ʦʰò</td>
<td>kʰáˀkpápʰatsʰò</td>
<td>‘make stretch out leg’</td>
</tr>
<tr>
<td>(cáwaavýetso)</td>
<td>(cáhwabýatso)</td>
<td></td>
</tr>
<tr>
<td>intransitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kʰàkpáːβɛ̀</td>
<td>kʰáˀkpápʰà</td>
<td>‘stretch out leg’</td>
</tr>
<tr>
<td>(cawáavye)</td>
<td>(cahwábya)</td>
<td></td>
</tr>
<tr>
<td>stative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kʰàkpàjɯ́kʰɯ́ₙɯ̀</td>
<td></td>
<td>‘leg stretched out’</td>
</tr>
<tr>
<td>(cáwayúcunu)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The verb kʰàkpá- palatalizes the following consonant in all the forms except the singular stative, where instead /j/ is introduced. It is as though the palatalization must realize itself, either by palatalizing a following consonant or by the introduction of /j/.

Appendix A gives comparative data for three Bora clans. Most of the differences involve palatalization.

### 2.4.3 Preaspiration

Generally, /ˀ/ occurs in the coda of a syllable only if the following consonant is post-aspirated (never before a nonaspirated consonant). Thus, it is perhaps best regarded as PREASPIRATION incorporated into the coda of the preceding syllable; see section 2.2. There are, however, two cases of

---

16 Assuming that historically the root-final /a/ derives from */ai/, this must be a case of */aiu/ having become /ayu/ before */ai/ became /a/.

17 Evidence that preaspiration occupies the coda of the preceding syllable is that it is mutually exclusive with [ʼ]; see example 52.
/ˣ/ that cannot be the result of “preaspiration” because they end words. These are the suffixes -ˣ’ vocative’ and -hûˣ ‘quick’, as in 50:

(50) Wáhaj, dichájuj.

kpáʔàˣ ti-tʃʰá-hûˣ  ‘Daughter, come
daughter-voc youImp-come-quick  right now!’

Some nouns begin with an underlying /ˣCʰ/ (where Cʰ is an aspirated consonant). The /ˣ/ is realized only if the noun heads a genitive phrase and /ˣ/ can be incorporated as the coda of the final syllable of the modifier (possessor), as in 51a. Note that /ˣ/ does not surface in 51b because ánû ‘this (SgM)’, a demonstrative pronoun, is the subject, not a possessor:

(51) a. ánûˣ tsʰíméne (áánúj tsì́méne) ‘this one’s child’
    b. ánû tsʰíméne (áánu tsì́míne) ‘this one (SgM) is a child’


Aspirated consonants may be preceded by /ˀ/, in which case there can be no preaspiration since the coda is already occupied by /ˀ/. Examples follow:

(52) a. kʰáʔkʰûns’hò (cahcuítso) ‘to believe’
    b. kʰáʔpʰíò (cahpió)  ‘to pour out’
    c. pàʔtʃʰìí (báhtstíjì) ‘type of fish’
    d. táʔkʰòó (dáhcoó) ‘to be refreshing’
    e. ũʔtʰúk’hù (ihtúcu)  ‘to peel’

When a suffix that begins with a preaspirated consonant (ˣCʰ) follows a stem containing a preaspirated consonant, the preaspiration in the stem is suppressed. For example, the root ma²tʃʰo ‘eat’ has preaspiration, but when -tʃʰa ‘always’ follows, as in 53, the root’s preaspiration is suppressed:

---

18 See section 9 regarding the genitive construction.
19 David Payne pointed out the similarity of this to Grassman’s Law.

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(53) máʧʰɔ-ʧɪ'kʰà-ːpè (Máchohíjcyåábe.) ‘He always eats.’

This reflects a tendency to avoid sequences of heavy syllables; see in section 2.7.

2.5 Apocope

Many morphemes apocopate one or more syllables sentence medially, the full form being used sentence finally. Among these are the following: -ʧɪ:(ʔè) ‘motive’ (compare 733 and 1051 with 734), -náå(ákʰà) ‘while’, -àʰʧʰi:(h'ù) ‘if’, -hː(βà) ‘deny’, and -kpù(ù) ‘very’.

Some morphemes are shortened even more. For example, when not phrase final, -ʔàhà (-haja) ‘challenge veracity’ may apocopate to -ʔ as in 54a, -ʔàːkʰà (-haaca) ‘capitulation’ to -ʔ as in 54b, and so forth:

\[(54)\]
\[
\begin{align*}
\text{a. } & \text{mûrā-ʔàhà (muuråhaja) } \sim \text{ ‘challenge veracity’} \\
& \text{mûrā-ʔ (muurå) } \\
\text{b. } & \text{àné-ʔàkʰà (anéhaaca) } \sim \text{ ‘concede’} \\
& \text{àné(ʔ) (ané) } \\
\text{c. } & \text{ʦʰʔàá (tsåählá) } \sim \text{ tsʰh’ (tså) } \text{ ‘not’} \\
\text{d. } & \text{pòʔò (boho) } \sim \text{ pò (bo) } \text{ ‘encouragement to do’} \\
& \text{ʧɪ?ijóx (llihíyój) } \sim \\
\text{e. } & \text{ʧɪʔúx (llihuíj) } \sim \\
& \text{ʧɪʔű (lli) } \\
\text{f. } & \text{kpàʔáɾòx (wahároj) } \sim \\
& \text{kpàʔáɯ̀x (waháuj) } \sim \text{ ‘mother/daughter (vocative)’} \\
& \text{kpàʔàx (waháj) } \sim \\
& \text{kpàʔà (wa) } \sim \text{ ‘father/son (vocative)’} \\
\end{align*}
\]

The suffix -tʰu ‘source’ is sometimes omitted following -ʔ(ʔ)ti ‘animate’; see examples 651b, 674, 673, 679, 690, and 699.

The suffix -nɛ ⟨n⟩ is sometimes omitted following -tʰu ‘negative’; see section 13.2 (especially examples 838 and 840).

The segmental portion of the suffix -kʰi ‘purpose’ is sometimes omitted, as in 969, 908, 909, and 1006. In such cases the preceding two syllables usually bear high and low tones (respectively) because the low tone imposed by -kʰi on the final syllable forces the penult to bear high tone so as to not violate the *LLX constraint assuming the presence of syllable corresponding to -kʰi. However, this is not always the case for reasons discussed in chapter 3.

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2.6. REDUPLICATION

The morpheme -ʔi (t) occurs on verbs with preverbal subjects. Utterance finally the /i/ is pronounced (and written). Utterance medially the /i/ is not pronounced (nor written), while the /ʔi/ is pronounced (but not written). For example, compare 55a and b:

(55) a. ó àʔó-ʔì (Ó ahdíóhi.) ‘I paid.’
   I pay-⟨t⟩

   b. ó àʔó-ʔíːː tːpːɛː-kʰɛ (Ó ahdíó dííbyeke.) ‘I paid him.’
   I pay-⟨t⟩ him-objAn

2.6 Reduplication

Bisyllabic onomatopoeic roots may be reduplicated. Some of these are verbal roots that—when not reduplicated—can bear verbal affixes. Others are not verbs but can replace verbs: they bear no verbal affix (although they can be the host for a clitic); the unreduplicated form refers to a single action whereas the reduplicated form refers to iterative action (corresponding to the singular versus multiple action distinction of verbs; see section 5.7.2).

The unreduplicated forms have HL tones; the reduplicated forms have LHHL tones.

Either [ˣ], [ˀ], or nothing occurs at the boundary between the reduplicated parts. Since we are unable to specify the conditions under which these occur we simply give examples. In those of table 2.5 nothing intervenes:

Table 2.5 Reduplication: nothing at the boundary

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATED</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>áβðó</td>
<td>áβóáβðó</td>
<td>expresses desire to cover up</td>
</tr>
<tr>
<td>pómì</td>
<td>pómípómì</td>
<td>side to side movement like a fish’s tail</td>
</tr>
<tr>
<td>kʰáʔòðó</td>
<td>kʰàʔókʰáʔòðó</td>
<td>sound like chewing on something hard</td>
</tr>
<tr>
<td>kʰáʦʰɯ́ðó</td>
<td>kʰàʦʰûkʰáʦʰûðó</td>
<td>expresses indecision</td>
</tr>
<tr>
<td>kʰójóðó</td>
<td>kʰójókʰójóðó</td>
<td>sound of a stick whipped through the air</td>
</tr>
<tr>
<td>tʰɛ́kʰóðó</td>
<td>tʰɛ̀kʰótʰɛ́kʰóðó</td>
<td>sound like chewing something hard</td>
</tr>
</tbody>
</table>

20 The distinctive high tone it imposes on the verb’s final syllable is sufficient evidence of its presence for Bora readers.
21 The following is exceptional in having HHHL tone: SIMPLE: íhʲò, REDUPLICATED: íhʲóíhʲò.
22 The following is exceptional in that the vowel is lengthened: SIMPLE: kʰóí, REDUPLICATED: kʰóːkʰóː.
### Chapter 2. Phonology

#### Continued from previous page

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kúʔò</td>
<td>kúʔókúʔò</td>
<td>sound made by the spines of a certain fish</td>
</tr>
<tr>
<td>kʰɛ́βì</td>
<td>kʰɛ̀βíkʰɛ́βì</td>
<td>movement like that of the head of a sleeping baby</td>
</tr>
<tr>
<td>tʃóʔì</td>
<td>tʃóʔìtʃóʔì</td>
<td>movement of grabbing something</td>
</tr>
<tr>
<td>pʰʔpʰʰ</td>
<td>pʰpʰʰpʰpʰʰpʰʰ</td>
<td>sound like the flapping of wings against something</td>
</tr>
<tr>
<td>ríùu</td>
<td>ríúríùu</td>
<td>movement of a baby scooting on its buttocks</td>
</tr>
<tr>
<td>ríhʰà</td>
<td>ríhʰáríhʰà</td>
<td>movement of walking</td>
</tr>
<tr>
<td>tʰʔà</td>
<td>tʰʔátʰʔà</td>
<td>kicking the feet in the air</td>
</tr>
<tr>
<td>tshʰtʰùù</td>
<td>tshʰtʰùšᵗʰʰùù</td>
<td>characteristic of being brittle and breakable</td>
</tr>
<tr>
<td>bíùu</td>
<td>bíù̱βíùù</td>
<td>characteristic of being light, weightless</td>
</tr>
<tr>
<td>kpáʧà</td>
<td>kpáʧákpáʧà</td>
<td>movement of lying on the back and twisting from side to side</td>
</tr>
<tr>
<td>kpátʰò</td>
<td>kpátʰókpátʰò</td>
<td>movement of something snagged in the river</td>
</tr>
</tbody>
</table>

In the examples of table 2.6 [‘] intervenes between the reduplicated parts:

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATED</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ápʰùù</td>
<td>ápʰùù’ápʰùù</td>
<td>movement of a puff of dust or smoke</td>
</tr>
<tr>
<td>póʦʰɛ̀</td>
<td>póʦʰɛ́ˀpóʦʰɛ̀</td>
<td>movement of the tail of a bird walking</td>
</tr>
<tr>
<td>kʰáʧó</td>
<td>kʰáʧó’kʰáʧó</td>
<td>movement of one falling down head first</td>
</tr>
<tr>
<td>kʰápʰà</td>
<td>kʰápʰᵃ’kʰápʰà</td>
<td>capturing a fish on a fishhook</td>
</tr>
<tr>
<td>kʰáʦʰùù</td>
<td>kʰáʦʰùšᵗʰᵃʦʰùù</td>
<td>expresses indecision</td>
</tr>
<tr>
<td>kʰúutùu</td>
<td>kʰúutùu’kʰúutùu</td>
<td>sound of throwing up</td>
</tr>
<tr>
<td>kʰúβì</td>
<td>kʰúβí’kʰúβì</td>
<td>manner of the walk of a man with a short leg</td>
</tr>
<tr>
<td>tʃʰjájá</td>
<td>tʃʰjájá’tʃʰjájá</td>
<td>sound when walking in a shallow pool</td>
</tr>
<tr>
<td>tʃékʰò</td>
<td>tʃékʰò’tʃékʰò</td>
<td>movement like that of a wobbly building frame</td>
</tr>
<tr>
<td>máɾà</td>
<td>màɾá’máɾà</td>
<td>sound of gunfire</td>
</tr>
<tr>
<td>móʔà</td>
<td>móʔá’móʔà</td>
<td>sound of a thick liquid falling into a pot</td>
</tr>
<tr>
<td>můrùu</td>
<td>můrú’můrùu</td>
<td>movement like the sudden disappearance of something</td>
</tr>
</tbody>
</table>

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2.6. REDUPLICATION

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>níà</td>
<td>níà’nìà</td>
<td>licking of the lips</td>
</tr>
<tr>
<td>nóù</td>
<td>nóù’nóù</td>
<td>gasp of breath like that caused by a scare</td>
</tr>
<tr>
<td>rákà</td>
<td>rákà’rákà</td>
<td>sound of difficult breathing</td>
</tr>
<tr>
<td>rétsʰè</td>
<td>rétsʰè’rétsʰè</td>
<td>back and forth movement of a shaky construction</td>
</tr>
<tr>
<td>rúkù</td>
<td>rúkù’rúkù</td>
<td>twitching of a body part</td>
</tr>
<tr>
<td>tʰókʰô</td>
<td>tʰókʰô’tʰókʰô</td>
<td>sound of something loose inside of something else</td>
</tr>
<tr>
<td>tsʰéú</td>
<td>tsʰéú’tsʰéú</td>
<td>sound of cutting a plant with one slash</td>
</tr>
<tr>
<td>tsʰúnà</td>
<td>tsʰúnà’tsʰúnà</td>
<td>jumping like a frog</td>
</tr>
<tr>
<td>béʧʰì</td>
<td>béʧʰì’béʧʰì</td>
<td>up and down movement of the end of a log in the river</td>
</tr>
<tr>
<td>βóʧʰì</td>
<td>βóʧʰì’βóʧʰì</td>
<td>juice squirting out of a juicy fruit</td>
</tr>
<tr>
<td>kpátù</td>
<td>kpátù’kpátù</td>
<td>punching holes in the ground as when planting corn</td>
</tr>
<tr>
<td>nájà</td>
<td>nájà’nájà</td>
<td>sinking into the mud</td>
</tr>
<tr>
<td>nóí</td>
<td>nóí’nóí</td>
<td>action of a baby nursing</td>
</tr>
</tbody>
</table>

In the examples of table 2.7 the [ˀ] optionally intervenes between the reduplicated parts:

Table 2.7 Reduplication: optional [ˀ] at the boundary

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATED</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>pɨ́nà</td>
<td>pɨ́nà⁽ˀ⁾pɨ́nà</td>
<td>movement of an object floating in the river</td>
</tr>
<tr>
<td>kʰútsʰè</td>
<td>kʰútsʰè⁽ˀ⁾kʰútsʰè</td>
<td>walking on the toes</td>
</tr>
<tr>
<td>tókpà</td>
<td>tókpà⁽ˀ⁾tókpà</td>
<td>extending the hands</td>
</tr>
<tr>
<td>kórä</td>
<td>kórä⁽ˀ⁾kórà</td>
<td>sound of bubbling water</td>
</tr>
<tr>
<td>kúrù</td>
<td>kúrù⁽ˀ⁾kúrù</td>
<td>grunt of a pig</td>
</tr>
<tr>
<td>tʃákʰì</td>
<td>tʃákʰì⁽ˀ⁾tʃákʰì</td>
<td>movement from side to side</td>
</tr>
<tr>
<td>tʃîkʰù</td>
<td>tʃîkʰù⁽ˀ⁾tʃîkʰù</td>
<td>pulling by jerks</td>
</tr>
<tr>
<td>níhì</td>
<td>níhì⁽ˀ⁾níhì</td>
<td>sticking out the tongue</td>
</tr>
<tr>
<td>nóhì</td>
<td>nóhì⁽ˀ⁾nóhì</td>
<td>ripples and waves on a river</td>
</tr>
<tr>
<td>nóñì</td>
<td>nóñì⁽ˀ⁾nóñì</td>
<td>snarling of a dog</td>
</tr>
<tr>
<td>répi</td>
<td>répi⁽ˀ⁾répi</td>
<td>fast movement of the point of a switch</td>
</tr>
<tr>
<td>rúpi</td>
<td>rúpi⁽ˀ⁾rúpi</td>
<td>puffing of the smoke of a cigarette</td>
</tr>
<tr>
<td>th’hìni</td>
<td>th’hìni⁽ˀ⁾th’hìni</td>
<td>bouncing of a ball</td>
</tr>
<tr>
<td>tsʰúkù</td>
<td>tsʰúkù⁽ˀ⁾tsʰúkù</td>
<td>sound of a hiccup</td>
</tr>
</tbody>
</table>

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In the examples of table 2.8, the unreduplicated form ends in [ˣ], which is preserved between the reduplicated parts, but not word finally:

Table 2.8 Reduplication: [ˣ] at the boundary

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kpámì</td>
<td>kpámì⁽ˠ⁾kpámì</td>
<td>up and down movement of the head</td>
</tr>
<tr>
<td>kpájà</td>
<td>kpájà⁽ˠ⁾kpájà</td>
<td>side to side shaking of the head</td>
</tr>
<tr>
<td>kpúìkʰù</td>
<td>kpúìkʰù⁽ˠ⁾kpúìkʰù</td>
<td>sound made by hitting a hollow log</td>
</tr>
</tbody>
</table>

In the examples of table 2.9 the unreduplicated root ends with [ˣ] but this does not appear in the reduplication (neither at the boundary between the reduplicated parts nor at the end):

Table 2.9 Reduplication: [ˣ] deleted at the boundary

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATED</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kʰópɯ́ˣ</td>
<td>kʰópɯ́ˣkʰópɯ́</td>
<td>sound like gurgling water in the stomach</td>
</tr>
<tr>
<td>kʰótàˣ</td>
<td>kʰótàˣkʰótà</td>
<td>sound like swallowing water</td>
</tr>
<tr>
<td>tʃóɾɪˣ</td>
<td>tʃóɾɪˣtʃóɾɪ</td>
<td>movement like climbing up or down a tree with difficulty</td>
</tr>
<tr>
<td>mójɪˣ</td>
<td>mójɪˣmójɪ</td>
<td>movement like a needle point entering something soft</td>
</tr>
<tr>
<td>nóràˣ</td>
<td>nóràⁿórà</td>
<td>movement like breaking though a surface</td>
</tr>
<tr>
<td>rúţʰù⁺</td>
<td>rúţʰù⁺rúţʰù⁺</td>
<td>movement like a shooting flame of fire</td>
</tr>
<tr>
<td>tʰópɯ́ˣ</td>
<td>tʰópɯ́ˣtʰópɯ́</td>
<td>sound like a small stone splashing into the river</td>
</tr>
<tr>
<td>βɪtsʰôˣ</td>
<td>βɪtsʰôˣβɪtsʰô</td>
<td>sound like walking in very loose shoes</td>
</tr>
<tr>
<td>βíuˣ</td>
<td>βíuˣβíu</td>
<td>sound like a stick breaking</td>
</tr>
<tr>
<td>βóhòˣ</td>
<td>βóhò⁺βóhò⁺</td>
<td>movement like juice escaping from a cracked fruit</td>
</tr>
<tr>
<td>ɲáˣ</td>
<td>ɲáᵃɲá</td>
<td>sensation like getting burned</td>
</tr>
</tbody>
</table>

continued next page
2.7. QUANTITY

This section describes phenomena that depend on quantity, that is, on syllable weight. This should not be taken as a definitive analysis; considerably more research needs to be done on this topic.

---

In the examples of table 2.10 [*] is optionally preserved between the reduplicated parts (but not at the end):

Table 2.10 Reduplication: optional [*] at the boundary

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kʰɛ́ʦʰɛ̀ˣ</td>
<td>kʰɛ̀ʦʰɛ́kʰɛ́ʦʰɛ̀</td>
<td>movement like stretching the neck to see something</td>
</tr>
<tr>
<td>tʃúhàˣ</td>
<td>tʃúháťʃúhà</td>
<td>movement like something becoming smaller</td>
</tr>
<tr>
<td>mɯ́tʰɯ̀ˣ</td>
<td>mɯ́tʰɯ́mɯ́tʰɯ̀</td>
<td>sound like something falling from up high</td>
</tr>
<tr>
<td>βáhàˣ</td>
<td>βáháβáhà</td>
<td>characteristic like something ready to pop open</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SIMPLE</th>
<th>REDUPLICATE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>rɛ́βòˣ</td>
<td>rɛ̀βó⁽ˣ⁾rɛ́βò</td>
<td>movement like turning around or rolling over</td>
</tr>
<tr>
<td>tʰóhɛ̀ˣ</td>
<td>tʰòhɛ́⁽ˣ⁾tʰóhɛ̀</td>
<td>movement like swimming in the river</td>
</tr>
<tr>
<td>βúttùˣ</td>
<td>βúttú⁽ˣ⁾βúttù</td>
<td>sound like a liquid dripping</td>
</tr>
</tbody>
</table>

For many words the root may be repeated three or more times: tûʳˣ ‘sound like a dull thud or bump’ becomes tûʳᵗûʳᵗûʳˣ ‘the sound of multiple impacts (something hitting the ground, hitting with the fist, cattle walking on hard ground,...)’; tʲûː²³ ‘the sound of a bell’ becomes tʲûː-tʲûː-tʲûː...‘the sound of a bell ringing’; tsáː-tsáː-tsáː ‘the sound made by a certain hawk’; kà-kà-kà-kà ‘the sound made by a chicken’; kàː-kàː-kàː-kàː ‘the sound of a hammock swinging’; kpjɛ́ː-kpjɛ́ː ‘the sound of a frog when caught by a snake’.

---

²³This could also be [tʲûːː] or [tʲɛ́ː] depending on the pitch of the bell.
2.7.1 The minimal word

When a monosyllabic root is spoken in isolation, another syllable with a homorganic vowel is added, and these bear low and high tones: őő. For example, ha ‘house’ becomes hàâ. 24 Equivalently, we might say that the minimal word is two moras. To pronounce a word with a single short vowel, the vowel would first have to be lengthened, whereupon it undergoes FLTS (see section 3.7.2).

However, monosyllabic words may occur within a sentence, as does [tsʰ âʔ] ‘not’ in 56:

(56) tsʰ âʔ(ì)òmáˣʧʰò-tʰɯ́(Tsá o májchotú.) ‘I did not eat’

2.7.2 “Heavy” syllables

What are “heavy” syllables? Generally they are syllables in which the coda is occupied by /ˣ/, /ˀ/ or /ː/ (that is, an additional mora). This allows us to state generalizations like “The first syllable of the host to which -pa ‘mIn’ is added is made heavy.” It is normally made heavy by closing the first syllable with /ˀ/, but when the host’s second syllable lacks an onset, the vowel of the first syllable is lengthened. Further, if the first syllable is already closed by preaspiration, then nothing changes. See section 5.7.3 for examples and further details. Thus, in this case /ˀ/, /ˣ/ and /ː/ all count as making the first syllable heavy.

In contrast to such cases where “heavy” unites /ˀ/, /ˣ/ and /ː/, there are others for which this characterization is too general. For example, consider the suffix -(ː)βɛ̀ ‘sIn’; when it is suffixed to a verb, the verb’s initial vowel is lengthened as in examples 180 and 181, page 114.

The suffix -(ː)βɛ̀ ‘sIn’ is similar. It usually lengthens the vowel of a preceding light syllable, as in the following examples:

following a bisyllabic stem
áí:βɛ̀-nɛ̀-tʰû (áíívyénetu burn-sIn-(ø)-sou)
kʰápʰà:βɛ̀-ʔı (cápaavyéhi hook-sIn-(t))
kʰáruː:βɛ̀-ʔı (cáruuvéhi lift.face-sIn-(t))
kʰóɾî:βɛ̀-ʔı (córrvéiṇúhi unstick-sIn-do.go-(t))
t-àkʰû:βɛ̀ (dacúúvé youImp-sit.down-sIn)

24 ha ‘house’ is also lengthened when followed by a monosyllabic clitic such as -ɾɛ ‘only’. The combination ha-ɾɛ undergoes PLTS to yield hàâɾɛ̀ ‘only the house’. 
t-ɛ̀kʰɛ-ːβɛ́ (dekéévé youImp-grab-sIn)
ɛ́kʰɛ́-ːβɛ́-ʧɛ̀ (ékéévéébeke grab-sIn-(SgM)-objAn)
úrá-ːβɛ́-mɛ̀ (úráavvémé follow-sIn-(AnPl))
úrá-ːβɛ́-ːpɛ̀ (úráávyeebe follow-sIn-(SgM))
úrá-ːβɛ́-ʔì (úráávyeh ñjcyaahe follow-sIn-sub be-(SgM))
úrá-ːβɛ́-ːpɛ̀-kʰɛ̀ (úráávévéébeke follow-sIn-(SgF))
úrá-ːβɛ́-ːpɛ̀-kʰɛ̀ (úráávyeebe follow-sIn-(SgM))
úrá-ːβɛ́-ːpɛ̀-Kl (úráávyeebe follow-sIn-pur)
βɯ́tò-ːβɛ́-ʔì (vúdoovéhi break-sIn-(t))
i árá-ːβɛ́-Kl (i áráávekei self dry.up-sIn-pur)
i ñkʰá-ːβɛ́-tsʰö-Kl (i ícyáávétsoki self decorate-sIn-caus-pur)
i típɛ́-ːβɛ́-nɛ̀ (i díbéevééne self put.between.lips-sIn-(ø))

following a trisyllabic stem

i ípʰíjɛ́-ːβɛ́-nɛ̀ (i ípiyéévééne self become-sIn-(ø))
mé kpáúmi-ːβɛ́-ʔì (mé wáúmiivyéhi SAP repeat-sIn-(ø))

If, however, the host’s penult is closed by /ье/, then -(ː)βɛ̀ does not lengthen the vowel of the host’s final syllable:

(57) i fʰíjɛ́-βɛ́-nɛ̀ (íjchívivénye self leave-sIn-(ø))
i nu kʰö̞ pʰíjɛ́-βɛ́-nɛ̀ (íñúcójápívénye self shame-sIn-(ø))

It is thus tempting to say that -(ː)βɛ̀ lengthens the preceding syllable unless this would create a sequence of heavy syllables. However, this would be incorrect because it does lengthen when the host’s penult is closed by a glottal stop:

(58) mi fʰú-ːβɛ́-kʰò (míchúúvec close.eyesImp-sIn-implore)

Throughout this grammar we use “heavy syllable” somewhat loosely, without implying that every claim will hold for all syllables closed by /ье/, /ʔé/ or /ʔé/. We hope that further study will make it possible to make more precise claims.

### 2.7.3 Suffixes that add weight to a monosyllabic root

Some suffixes optionally contribute a glottal stop (ʔ) to the coda of a preceding monosyllabic root, thereby making it heavy. Among these are the following:

- -tʰ̂ti (-di ~ -hdi) ‘negative imperative’, as in ph̓ɛ́-ʔ̂tí-ɲɛ̀ (pehdíñe) ‘Don’t go!’
- -tʰ̂tu (-du ~ -hdu) ‘similarity’, as in 1082 and 1085, page 424
- -ʔ̂jiːʔ̂è (-lliíhye ~ -hlliíhye) ‘beneactive’, as in 1136, page 434
- -ʔ̂nɛ̀ (-ne ~ -hne) ‘recent’, as in 1154 and 1155, page 438

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There are other suffixes that always make the preceding syllable heavy, regardless of the number of syllables of its host.

### 2.7.4 Quantity alternations

In various cases, a heavy syllable becomes light when followed in the word by a heavy syllable (\(\tilde{\sigma} \rightarrow \sigma \;/\ldots\; \tilde{\sigma}\)). For example, \(\text{pʰɛː}^\circ\): ‘go’ has a long vowel, as in 59a and b, but the length is suppressed when \(-\text{huku}^\circ\): ‘now’ follows, as in 59c:

\[(59)\]
\[
a. \, \text{ó pʰɛː}-\text{-ʔì} \quad (\text{ó pééhi}) \quad \text{‘I go.’} \\
b. \, \text{pʰɛː-}-\text{mê} \quad (\text{peéme}) \quad \text{‘They go.’} \\
c. \, \text{ó pʰɛː}-\text{huku}^\circ-\text{-ʔì} \quad (\text{ó péjucóóhi}) \quad \text{‘I am going now.’}
\]

The bound root \(\text{apʰàː}^\circ\): ‘only’ has a final long vowel, as in 60a–c, but this becomes short when, by the addition of a suffix, the following syllable has a long vowel, as in 60d:

\[(60)\]
\[
a. \, \text{àpʰáː}-\text{kpá}-\text{ɾɛ̀} \quad (\text{apááwáre}) \quad \text{‘the only slab’} \\
b. \, \text{àpʰáː}-\text{né}-\text{ɾɛ̀} \quad (\text{apááñeére}) \quad \text{‘the only thing’} \\
c. \, \text{àpʰáː}-\text{mʲɛ́}-\text{ɾɛ̀} \quad (\text{apáámyére}) \quad \text{‘the only ones (AnPl)’} \\
d. \, \text{àpʰá}-\text{-ʔàː} \quad \text{mɨ́}-\text{ɾɛ̀} \quad (\text{apáhaamíre}) \quad \text{‘the only leaf-like thing’}
\]

Other cases are outlined in the following subsections.

#### 2.7.4.1 Length suppressed by \(-\text{cu}^\circ\) ‘duIn’ and \(-\text{ne}^\circ\) ‘plural’

In addition to lengthening their host’s final vowel,\(^{25}\) \(-\text{kʰù}^\circ\) ‘duIn’ and \(-\text{nè}^\circ\) ‘plural’ generally suppress the weight of any preceding syllables. For example, compare 61a and b:

\[(61)\]
\[
a. \, \text{kʰámé}-\text{-mì} \quad \text{cááméemì} \quad \text{‘airplane’} \\
\quad \text{high-per-(canoe)} \\
b. \, \text{kʰámé}-\text{-mì}-\text{-nè} \quad \text{cáméemííne} \quad \text{‘airplanes’} \\
\quad \text{high-per-(canoe)-plIn}
\]

In the following examples, the singulars have length but this is suppressed in the dual or plural:

\(^{25}\)Compare 411b,c with 412b,c; we do not know why in one case the host’s final vowel is lengthened while in the other it is not.
2.7. QUANTITY

<table>
<thead>
<tr>
<th>MEANING</th>
<th>SINGULAR</th>
<th>DUAL OR PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ‘drum’</td>
<td>kʰú:múpá cúmuba</td>
<td>kʰú:múpánɛ cúmúbaáne</td>
</tr>
<tr>
<td>b. ‘lemon’</td>
<td>tʃáma:ràpá llámáaraba</td>
<td>tʃáma:ràpánɛ llámáarabáane</td>
</tr>
<tr>
<td>c. ‘shed’</td>
<td>nú:húkpa núújuwa</td>
<td>nú:húkpá:kʰù nújuwáacu</td>
</tr>
<tr>
<td>d. ‘audi-</td>
<td>pʰí:kʰábɛ̀hà pihcyááveja</td>
<td>pʰí:kʰábɛ̀há:nɛ̀ pihcyávéjaáne</td>
</tr>
<tr>
<td>e. ‘pill’</td>
<td>tʰà:póhi taábojì</td>
<td>tʰà:póhi:kʰù taábojí:cu</td>
</tr>
<tr>
<td>f. ‘wash-</td>
<td>nɪˣtʰúkpa nijtyúwa</td>
<td>nɪˣtʰúkpa:nɛ̀ nijtyúwáane</td>
</tr>
</tbody>
</table>

Note that the last example begins with a syllable made heavy by /ˣ/, but that, contrary to what we might expect, -ːnɛ does not make this syllable light; that is, it seems to affect only vowel length, not syllable weight in general. See also examples 413 and 415, page 196, and example 493, page 223.

2.7.4.2 Vowel length alternating with [ˣ] before vowel length

Why does [ˣ] (preaspiration) alternate with vowel length in 62 and 63?

(62) a. ɨ́ˣ tˢʰí:mɛ́nɛ̀ (ɨ́ jtsɨ́ ɨ́ méne) ‘his child’
     self child
   b. ɨ́ː tˢʰí:mɛ̀ (ɨ́ː tˢɨːmɛ́) ‘his children’
     self children

(63) a. tʰáˣ tˢʰí:mɛ́nɛ̀ (tájtsɨːméne) my child
     my child
   b. áː tˢʰí:mɛ̀ (áːtˢɨːme) my children
     my children

Note the long vowel of the first syllable of /tˢʰí:me/ ‘children’. In 62a and 63a this is phonetically [iː]; and in these cases the possessive proclitic has [ˣ]. By contrast, in 62b and 63b, this long vowel has undergone PLTS (discussed in 3.7.1) to become two short syllables; in these cases the possessive proclitic has a long vowel. Thus, this appears to be another case where multiple long vowels are avoided within the same phonological word.

2.7.4.3 Maintaining syllable weight in imperatives

Singular imperatives sometimes change the coda of the first syllable, as discussed in section 14.1.3. Sometimes [ˣ] becomes [:] and sometimes [:]

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b. umu-hè-tʰɛ̀ː-pɛ̀ (úújetéébe) ‘He went to see.’
    see-go.do-{(SgM)}
c. t-úʔ-hè-tʰɛ̀ (dúhjete) ‘Go see it!’
    youImp-see-go.do

### 2.7.4.4 Length in pronouns

The pronouns (chapter 8) demonstrate many alternations between heavy and light syllables, particularly short and long vowels.²⁶ We will point out a few cases.

Consider examples in 532 and 533, page 236. The length of the root tʰɛ̀ː ‘that’ surfaces when followed by a suffix consisting of a light syllable, as in 532a–c. However, when a heavy syllable follows, as in 532d and 533a–d, then the root’s length is suppressed. In 532d and 533a, c, and d the weight is due to length while in 533b it is due to theoda being filled by /ʔ/.²⁷

In table 8.4, page 242, consider the length of èː- ‘that (medial)’. This length is suppressed when followed by a heavy syllable, as created by -kʰu ‘dùn’, by -(ʔ)hì ‘plural’, or by a classifier bearing length such as -ʔaːmi ‘leaf, paper,…’.

### 2.7.4.5 Allomorphy conditioned by preceding syllable weight

In some cases a suffix lengthens a preceding light syllable only if a heavy syllable does not precede within the word. For example, -(t)è ‘only’ lengthens the preceding vowel in 65a. It does not do so in 65b because the first syllable is heavy, nor in 65c because the second syllable is heavy.

(65) a. /pʰá-nɛ̀ː-rè/ (all-{(I)}-only) (páneére) ‘all (things)’
    b. /tí-pɛ̀ː-rè/ (that-{(SgM)}-only) (díibyere) ‘only he’
    c. /ímí-f²-rè/ (good-only) (ímihye) ‘only good’

²⁶There seems to be a tendency to end the pronouns with a heavy syllable followed by a light syllable (ððò).
²⁷It is further interesting to compare 532a and 533a. In the former the root is long when followed by -nɛ̀ (t), while in the latter the length is suppressed when -nɛ̀ is followed by -(t)kʰu ‘dual’.

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2.8 Unresolved issues

Several issues beg for further study:

1. It seems that Bora does not have a stress system aside from the system of tone. We do not discount the possibility that Bora’s tone system is a stress system implemented on tone. See note 8, page 98 for further discussion.

2. Throughout this grammar we make observations about quantity sensitive phenomena but we have no theory about these. We understand little about vowel length, particularly when the length of certain morphemes will surface and when not. For example, we do not know why pʰá-mɛ̀ːɾɛ̀ (all-⟨AnPl⟩-only) ‘only all of them (AnPl)’ has length while pʰà-mɛ́-βá-ɾɛ̀ (all-⟨AnPl⟩-plQ-only) ‘only all of them (AnPl)’ does not. And we are unsure as to what constitutes a heavy versus a light syllable.

3. An attempt to define Bora foot structure has yielded no definite answers. For example, it is unclear whether the FOOT should be defined in terms of syllable weight or tone (which is not unreasonable if the tonal system were really an accentual system implemented on tone). As working hypotheses we might assume that (1) heavy syllables are those that end with x, ʔ or :, (2) the foot is a left-headed trochee, and (3) feet are assigned from left to right. (Since a phrase may begin or end with either a heavy or a light syllable, we must have degenerate feet.)

4. In one case (and only one that we know of) the case marker -tʰu ‘source’ is not aspirated, namely when it follows the classifier -ʦʰi ⟨place⟩: á-tˢʰi-ˀtʲɯ́-βá-ɾɛ̀ (thm-⟨place⟩-sou-rpt-rem) ‘from that place (long ago, it is said)’. We do not know why.
Tone plays a major role in the Bora language. (One indication of this is that messages can be communicated by beating the tones on large hollow-log drums; see section 1.8.) There are minimal pairs showing that tone may be the only difference between lexical items or grammatical constructions. For example, the only difference between 66a and b is in the tone of the first syllable. (Note: in the Bora writing system, high tone is written as an acute accent, while low tone is not written.)

(66) a. àː-nè má*:ʧʰ òː-pè (Aane májchoóbe.) ‘He ate that.’
    b. ãː-nè má*:ʧʰ òː-pè (Ááne májchoóbe.) ‘Then he ate.’

The only difference between 67a and b is in the tone of the second syllable:

(67) a. ánɯ̀ òːʔíːpʲɛ̀ (áánu oohííbye) ‘This one (SgM) is a dog.’
    b. ánú òːʔíːpʲɛ̀ (áánú oohííbye) ‘his dog’

Further consider imi ‘good’, cited here in the nonfinite form with two low tones. When it occurs as the head of a genitive construction, as in 68, it bears high-low tones:

(68) tíː-ːpʲ èɨ mi  (dííbye ími) ‘his goodness’
       that-⟨SgM⟩ good

When it is a predicate adjective, as in 69, it bears high tone on both syllables:

(69) ímë  òó (Ímí oó.) ‘I am good.’ or
       good I  ‘I am in good health.’

When it is a verb, its tones vary depending on what suffixes follow; compare 70a and 70b:
(70) a. ō imíʔi (Ó imíhi.) ‘I am good.’ or
I be.good-(t) ‘I am in good health.’
b. ímíːpɛ̀ (Ímiíbye.) ‘He is good.’ or
be.good-(SgM) ‘He is in good health.’

Note that the penultimate vowel of 70b is given as a single long vowel in the morphemic form but as ǐ (bisyllabic1) according to the Bora writing system, which more closely represents the spoken form. The difference is due to the application of PLTS, a rule discussed in section 3.7.1. This convention is followed throughout this grammar.

Likewise, when verbs are cited, the tones of the morphemic form and the orthographic form may differ, as for example ɨˀβɛtʰɛ (ɨhvéte) ‘to stop doing’. The first representation shows the morphemic tone (here a single lexically marked tone on the second syllable) while the orthographic form is how the word would be pronounced in isolation (the result of imposing the nonfinite low tone on the antepenult; see section 4.1).

3.1 Some basic facts and overview

This section gives a brief overview of the Bora tone system, after which each topic will be dealt with in greater detail.

1. There are two tones, high (H) and low (L). The marked tone is low. The general default tone is high (although the default for final syllables is low).

2. A sequence of two low tones is disallowed except at the end of a word or tonal phrase. We will refer to this as the *LLX constraint. There is no such restriction on high tones. Any number of high tones may occur one after another.

3. Tones are placed on syllables irrespective of whether they have short or long vowels. (We can say, “Bora tone is blind to quantity.”) However, there is a process that relates tone and length. At the end of a tonal phrase, a penultimate or final syllable with a long, low tone vowel (figure 3.1a) may “split” into two syllables with low-high tones (figure 3.1b). Note: adjacent homorganic vowels bearing different tones are always pronounced as two syllables.

1See section 2.2.
3.1. SOME BASIC FACTS AND OVERVIEW

There are two environments in which this change applies: in the penultimate syllable and in the final syllable, as captured by the rules that follow. Note that the tones represented by T must be high; otherwise the changes would produce violations of the *llx constraint.

Penultimate

Low Tone Split (PLTS): \[ \sigma.: \rightarrow \sigma.\sigma. /\sigma(\ldots\sigma).\sigma\sigma\ldots^{a} \]

Final

Low Tone Split (FLTS): \[ \sigma.(\ldots) \rightarrow \sigma.\sigma. /\sigma(\ldots\sigma)\sigma\sigma\ldots^{a} \]

---

4. Morphemes may have lexically marked tones. Nouns may have lexically marked low tones or—more rarely—lexically marked high tones. Verbs may only have lexically marked low tones. Lexically marked tones may not occur on a stem’s final syllable (presumably because such tones would be masked too much by the tones imposed by following suffixes).

5. Some suffixes bear a lexically marked low tone on one of their syllables. Many suffixes have a low tone to be docked on its host’s final or penultimate syllable. A few suffixes impose a tone on the host’s initial syllable.

6. As suffixes are cyclically added, their tones may come into conflict with the host’s tones; that is, to dock their tone would create a sequence of nonfinal low tones violating the *llx constraint. Such cases are resolved in two ways:

   - Blocking: Usually the suffix’s tone is simply not docked.
   - Delinking: Some suffixes have the power to delink the host’s incompatible tone.

7. Verbs are made nonfinite by placing a low tone on the earliest possible syllable of the stem’s last three syllables. (Any other lexically marked low tones the verb might have are delinked.)

8. Various grammatical constructions are indicated by tone:

---

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GENITIVE: The genitive construction is formed by juxtaposing the modifier (possessor) and head (possessed) with a floating low tone, the GENITIVE TONE, at the juncture:

\[
\begin{array}{c}
\text{[tonal phrase } \ \text{NP}_{\text{possessor}} \ \ominus \ \text{N}_{\text{head}}]
\end{array}
\]

When the head is mono- or bisyllabic, the genitive tone docks on the possessor’s final syllable. When the head has more than two syllables, the genitive tone docks on the head’s initial syllable. The combination of possessor and head forms a single tonal phrase so the *LLX constraint is respected at the juncture.

SUBORDINATE VERBS: The verb of a subordinate clause begins with a high tone.

PREDICATE ADJECTIVE: Predicate adjectives are derived from verbs by imposing high tones on their first two syllables and adding [ʔ] at the end:

\[
\begin{array}{c}
\text{[#[σ} \ \text{σ (X)} \ \text{)} \ \text{StatVerb} \ #]
\end{array}
\]

\[
\begin{array}{c}
\text{↑}
\end{array}
\]

\[
\begin{array}{c}
\text{[#[H} \ \text{σ} \ \text{H} \ \text{σ (X)} \ \text{ʔ} \ \text{)} \ \text{PredAdj} \ #]
\end{array}
\]

In 69 above, imi ‘good’ is used as a predicate adjective; it has the two high tones. (The final glottal stop is not written.) Now we will consider imia ‘of good quality (proper, right, righteous, just,…).’

In 71 it is a predicate adjective:

\[
(71) \text{ímiá tìpɛ̀. (Ímiá diíbye.) ‘He is good.’ }
\]

Here the high tones typical of predicate adjectives do not override the lexically marked tone. In light of this, we need not posit a derivational process that imposes the high tones. Rather, predicate adjectives are not marked for tone; they simply come about by default.

IMPERATIVE: The tone of imperatives is discussed in section 14.1.1.

Before entering into a more detailed discussion of these topics, let us consider some simple examples. Consider the nouns in table 3.1 and the comments that follow.\(^2\)

\(^2\)Presumably this is a cognate with imi ‘good’.

\(^3\)The labels in table 3.1 indicate the following:

- **lexical** the lexical form
- **isolation** the word as spoken alone
- **plural** the plural form
- **dim** the diminutive form
- **my-** the noun in genitive construction with the first person possessive proclitic
- **my-**pl the noun both possessed and pluralized
Table 3.1 Some simple tone examples

<table>
<thead>
<tr>
<th></th>
<th>WATCH</th>
<th>DEER</th>
<th>STORK</th>
<th>CHICKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>lexical</td>
<td>nũ'pa</td>
<td>nĩbbcũkpə</td>
<td>nö'kʰo</td>
<td>kʰarákʰa</td>
</tr>
<tr>
<td>isolation</td>
<td>nũ'pə</td>
<td>nĩbbcũkpə</td>
<td>nö'kʰo</td>
<td>kʰarákʰa</td>
</tr>
<tr>
<td></td>
<td>nũhə</td>
<td>nũvũwa</td>
<td>nohcó</td>
<td>cárača</td>
</tr>
<tr>
<td>plural</td>
<td>nũ'pə-mũ</td>
<td>nĩbbcũkpə-mũ</td>
<td>nö'kʰo-mũ</td>
<td>kʰarákʰa-mũ</td>
</tr>
<tr>
<td></td>
<td>nũhbu</td>
<td>nũvũwamu</td>
<td>nohcómu</td>
<td>cáračamu</td>
</tr>
<tr>
<td>dim</td>
<td>nũ'pə-kpũ</td>
<td>nĩbbcũkpə-kpũ</td>
<td>nö'kʰo-kpũ</td>
<td>kʰarákʰa-kpũ</td>
</tr>
<tr>
<td></td>
<td>nũhbu</td>
<td>nũvũwamu</td>
<td>nohcómu</td>
<td>cáračamu</td>
</tr>
<tr>
<td>my-__</td>
<td>tʰã nũ'pə</td>
<td>tʰã nĩbbcũkpə</td>
<td>tʰã nö'kʰo</td>
<td>tʰã kʰarákʰa</td>
</tr>
<tr>
<td></td>
<td>tãnhũbə</td>
<td>tániivũwa</td>
<td>tánohcó</td>
<td>tácaраča</td>
</tr>
<tr>
<td>my-__-pl</td>
<td>tʰã nũ'pə-mũ</td>
<td>tʰã nĩbbcũkpə-mũ</td>
<td>tʰã nö'kʰo-mũ</td>
<td>tʰã kʰarákʰa-mũ</td>
</tr>
<tr>
<td></td>
<td>tãnhũbámu</td>
<td>tániivũwamu</td>
<td>tánohcómu</td>
<td>tácaраčamu</td>
</tr>
</tbody>
</table>

1. The last two roots in table 3.1 have a lexically marked low tone on their penultimate syllable, whereas the first two have no lexically marked tone.
2. In isolation, all of these nouns end with two low tones.
3. The suffix -Lmɯ’plAn’ imposes a low tone on the preceding syllable; it does so following nũ’pə ‘watch’ and nĩbbcũkpə ‘deer’ but not following nö’kʰo ‘stork’ and kʰarákʰa ‘chicken’ because this would create a sequence of two nonfinal low tones in violation of the *LLX constraint. By default, the final syllable becomes low tone and any unmarked nonfinal syllables become high.
4. The suffix -kpũ ‘diminutive’ has a lexically marked low tone. The underlying form is really -kũũ, so the preceding syllable must become high tone to avoid violating the *LLX constraint.
5. The lexically marked low tones on the penultimate syllables of nö’kʰo ‘stork’ and kʰarákʰa ‘chicken’ do not conflict with the low tone of -kpũ ‘diminutive’.
6. The last two rows of table 3.1 illustrate the tone pattern of the genitive construction, as described above. This consists of concatenating the possessor (modifier) and the head to form a single tonal phrase, with a floating low tone between them. If the head is one or two syllables, the tone docks on the modifier’s final syllable. If the head is longer, it docks on the head’s initial syllable.

Regarding the animacy of ‘watch’, see the first paragraph of section 6.1.1.1, page 163.
lexically marked low tone would violate the *LLX constraint (since the possessor and head form a single tonal phrase), so the possessor bears high tone.

Consider the form for ‘my chicken’. Because the genitive tone should dock on the first syllable of a trisyllabic head, we would expect it to do so in this case. However, this tone and the noun’s lexically marked low tone would violate the *LLX constraint, so the possessor bears high tone.

With these comments by way of an overview, we now begin a more detailed discussion of the Bora tone system.

3.2 The tonal elements

Bora has two contrastive level tones. It has no contour tones. There are—to our knowledge—no restrictions between tones and segments: either tone may occur on any syllable.

Every syllable carries either a high or low tone. High tones may occur one after the other without limit, as in the third word of 72:

(72) Dííbyeke o ájtyúmtúrónáa ó waajácú múha teene méénune.
  tέː.pɛ̀.kʰɛ̀.òáˣ.tɛ̀.mɨ́.tʰɯ́.ɾó.ná.à
  him      I not.see

  ó kpàː.kʰú mú.ʔà tʰɛː.nè mɛː.nù.nè
  I know   who   that   do
  ‘Although I did not see him, I know who did it.’

A sequence of high tones rises slightly, i.e., the pitch of each syllable is slightly higher than that of the preceding syllable.

When two low tones occur at the end of a word, the second has a slightly lower pitch than the first.

3.3 Default tones

3.3.1 Final default low tone

By default the final syllable of a tonal phrase bears low tone; see figure 3.2:
3.3 DEFAULT TONES

a. $\sigma \rightarrow \underline{\sigma} / _{\#} \text{ or } _{\#\#}$ (any category)
b. $\sigma \rightarrow \underline{\sigma} / _{\#\#}$ (just nouns)

Figure 3.2 Final default low tone (FDLT)

The sentence pairs in 73–75 illustrate FDLT for verbs. In 73a, “they eat” is phrase medial and thus ends with a high tone; in 73b it is phrase final so ends with a low tone.

(73) a. Majchómé llīhyomútsi.  
$mà^{ıt}ʧʰó-mɛ́ ʧíʔʲò-mɯ́ʦʰì$ MEDIAL ‘Mother and eat-⟨AnPl⟩ father-med’s eat.’

b. Majchómé.  
mà$^{ıt}ʧʰó-mɛ̀$ FINAL ‘They eat (bread).’

Examples 74 and 75 are similar:

(74) a. Awákunúúbé llīhiyo.  
$àkpákʰɯ̀nɯ́-ːpɛ́ ʧìʔí-jò$ MEDIAL ‘Father yawns.’
yawn-⟨SgM⟩ father-frs

b. Awákunúúbe.  
$àkpákʰɯ̀nɯ́-ːpɛ̀$ FINAL ‘He yawns.’
yawn-⟨SgM⟩

(75) a. Ícyoocáré tsaábe.  
$íkʲʰòːkʰá-ɾɛ́ ʦʰà-ːpɛ̀$ MEDIAL ‘Only now does now-only come-⟨SgM⟩ he come.’
come-⟨SgM⟩

b. Tsaábe ícyoocáre.  
$ʦʰà-ːpɛ̀ íkʲʰòːkʰá-ɾɛ̀$ FINAL ‘Only now does now-only come-⟨SgM⟩ he come.’
come-⟨SgM⟩

If the word is a noun, the final two syllables may bear low tone. For example, pronounced in isolation, the final tones of nǐβɯ̀kpà ‘deer’ and pásti$kʰà ‘female adolescents’ are due simply to FDLT. By contrast, FDLT only affects the final tone of ôβã’tsʰà ‘male adolescent’ because the initial syllable bears a lexically marked low tone, which stops FDLT from docking a low on the penult. In other cases, like the last word of 73a, only the final syllable bears low tone.

5Parents can be referred to by the dual form of either ‘mother’ or ‘father’, depending on which parent is in focus.

6PLTS discussed below in section 3.7.1, does not apply in 74b because of the lexically marked low tones of $akpakʰum- ‘yawn’. 

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However, we do not fully understand the conditions for the application of FDLT. It certainly applies at the end of an utterance, as just illustrated. In figure 3.5 it does not apply to the first word because this is not phrase final, but in other cases it seems to apply word finally within a sentence. These matters merit further study.

3.3.2 Default high tone

The overall default tone is—somewhat surprisingly—the high tone. In a tone derivation, we capture this fact by positing a very late rule (applying after the previously-mentioned rule) that places high tone on any syllables that are unmarked for tone:

$$\sigma \rightarrow ^{i} \sigma$$

Figure 3.3 Default high tone DHT

This is illustrated in the tone derivations of ūmèʔè, níβũkpa, and màϕʔə in figure 3.4:

<table>
<thead>
<tr>
<th>umehe</th>
<th>tree</th>
<th>níːvuwa</th>
<th>deer</th>
<th>majcho</th>
<th>to eat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>: : :</td>
<td>L L</td>
<td>L L</td>
<td>: L</td>
<td>FDLT</td>
</tr>
<tr>
<td></td>
<td>H : :</td>
<td>DHT</td>
<td>H : :</td>
<td>DHT</td>
<td></td>
</tr>
<tr>
<td>úmehe</td>
<td>‘tree’</td>
<td>níːvuwa</td>
<td>‘deer’</td>
<td>majcho</td>
<td>‘food’</td>
</tr>
</tbody>
</table>

Figure 3.4 TD: úmehe, níívuwa, majcho

The resulting words are given as the last line of each derivation, written as the Bora people would write them, except that vowel length is represented with a colon and morphemes are divided by hyphens.\(^7\) To the right of each morpheme a gloss is given. Also at the right are the names of tone rules that apply: FDLT for the “final default low tone” rule, DHT for the “default high tone” rule, and so forth.

In tone derivations the colons are included to guide the eye to the corresponding vowel in the complete word at the bottom of the derivation. Likewise, vertical bars are used to associate tones with a vowels, but only those that are not by default. This can be seen in the tone derivation of ʧíːɲáhàː-ïhëː-ːpè múrʰáʔì in figure 3.5 (from example 629). The first word does not undergo FDLT (nor PLTS discussed below) because it is not phrase final. Its final tone becomes high by DHT. (Note the use of underscores

\(^7\)This works well because the writing system is quite phonemic. In some minor respects it is phonetic.
3.4. THE CYCLICAL NATURE OF SUFFIXATION

A suffix may bear a tone to be imposed on its host’s penultimate or final syllable. Suffixes are attached cyclically: [[root -suffix] -suffix] -suffix].... With the addition of each suffix, the host’s tones may be modified by the suffix’s tones. This is illustrated in the tone derivations of máťʰɔ-tʰɛ́-mɛ̀-βàˣ, ŭmɛ́ʔɛ́-mɛ̀-ʔáɲɛ̀, and níβúkpà-úβú-mà in figure 3.6. (The underscore ties a tone to the suffix that imposes it, whether on the host’s final or penultimate syllable.)

Consider the tone derivation of ɨ́ˀβɛ̀-ʦʰò-tʰɛ́-ɾò-ːpɛ̀ in figure 3.7. (PLTS will be discussed below.)

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Note how the cyclical addition of suffixes affects the tone:

1. The \( L \) of -\( l \)tsʰo (-tso) ‘causative’ is blocked by the root’s lexically marked low tone. (In figure 3.7 the lexically marked low tone is indicated by “L” followed by “lexical.” Blocking is indicated by “+” on the line connecting the root’s final vowel and the L brought by -\( l \)tsʰo.)

2. The \( L \) of -\( l \)tʰɛ ‘go to do’ docks on the host’s final syllable. The \( L \) of -\( l \)tsʰo does not block the \( L \) of -\( l \)tʰɛ because the \( L \) of -\( l \)tsʰo has not docked (as just explained).

3. The \( L \) of -\( l \)ro ‘frustrative, contraexpectation’ is blocked by the \( L \) of -\( l \)tʰɛ.

4. The \( L \) of -\( l \):pɛ ⟨SgM⟩ docks. The \( L \) of -\( l \)ro does not block it because it is not docked.

If floating tones are not associated on the cycle in which their morpheme is attached, they are never associated.

Strong evidence for cyclical tone adjustment can be seen in the second derivation of figure 3.28, page 86: the \( L \) of -\( l \)a ‘come to do’ may not dock because of the root’s lexically marked low on the initial syllable: á?ije ‘visit’. However, the root’s low tone is subsequently delinked by the negative suffix and ends up bearing high tone.

### 3.5 Lexically marked tones

Bora morphemes (prefixes, roots, suffixes, and clitics) may have lexically marked tones. These are often not the tones with which the morpheme appears; a word’s surface tones are the result of a derivation that may modify these tones (as seen above).
Further, a morpheme may consist in nothing more than a tone; that is, it may have no segmental material. There is considerable “grammatical” tone of this sort: notions like tense, mood, subordination, category, and even certain constructions, may be marked only by tone, as will be seen below.

Because the addition of suffixes can modify the host’s tones, in some cases a stem’s lexically marked tones can be determined only by seeing it with various suffix combinations.

### 3.5.1 Lexically marked low tones

Both roots and suffixes may have lexically marked low tones. For example, this is the case for the second syllable of the verb $i^{̊}βɛtʰɛ$ (iɛvete) ‘to stop doing’, for the first syllable of the noun $L^{ε}βsʰa$ (ovatsa) ‘male adolescent’, and for the first syllable of the suffix -$kʰu$(-wu) ‘diminutive’. (The forms written according to the Bora writing system give the word as it would be spoken in isolation, with verbs given in the nonfinite form, with default tones as discussed above.)

Compare the tone derivations of $ɨμɛʔɛ-βɯ$,$ɨμɨʔɛ-βɯ$, and $n^{̊}kʰό-kpɯ$ in figure 3.8:

<table>
<thead>
<tr>
<th>$ɨμɛ$</th>
<th>$ɨμɨ$</th>
<th>$n^{̊}kʰ$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ɛʔɛ$</td>
<td>$ɨʔɛ$</td>
<td>$ó-kpɯ$</td>
</tr>
</tbody>
</table>

The first word has no lexically marked tone whereas the second and third do. The lexically marked low in the second word blocks the docking of the suffix’s $i$ so the final tones are different. (Blocking is discussed further in section 3.11.1.)

There is usually only one lexically marked low tone per verb root, although some verbs have two, e.g., $kʰunu$ (awacunu) ‘to yawn’; see the tone derivations of $kʰunu$ and $kʰunu$ in figure 3.9:

---

8This orthographic form is given with nonfinite tone.
3.5.2 Lexically marked high tones

Nouns—but not verbs—may have lexically marked high tones.9 For example, such is the case for the first syllable of úníũû ‘side’. This tone blocks (see section 3.11.1) the genitive low tone from docking on its first syllable,10 as seen in 76:

(76) tʰá  ᣙ  úníũû-ɾi (tá úníuri) ‘at my side’
tí:p’,é  ᣙ  úníũû-ɾi (dííbyé úníuri) ‘at his side’

Likewise, in 77, múnaa ‘countryman’ has a lexically marked high tone that blocks the docking of the genitive tone, whereas it is not blocked in munaa ‘enemy’. (-ˣpʰi is a singular masculine classifier.)

(77) tʰá múnaá–pʰi (támúnáajpi) ‘my countryman’
       tʰá múnaá–pʰi (támunáajpi) ‘my enemy’

9There are not many of these. Some of them are: ámána (ámánaá) ‘porpoise’; kʰaʧʰu (ajchúhóóu) ‘flashlight’; pʰaːp (báábee) ‘father-in-law’, e.g. (báábee) ‘my father-in-law’, (dííbyé baabo) ‘his father-in-law’; paːkʰu (bájcuú) ‘bone’; paːkʲʰɛ (bájkyeé) ‘root’; pʰp (béébeé) ‘new one (SgM)’; kʰátʰu (cáátuú) ‘sweet potato’; kʰáni (cáánií) ‘father’; kʰátsʰo (catoó) ‘grater, spices, wasp (that makes a grater-like nest)’; kʰómi (cóómií) ‘town’; ᣙ  (ééboó) ‘container (drum, box,…)’; ᣙ  ᣙ  isis (idsʰ) ‘self’s daughter’; ikʰaːbɛ̀ (icyáávéé) ‘decoration’; ᣙ  ikʰo (ijcyoó) ‘nest’; ᣙ  ᣙ  (ijtyeé) ‘self’s ones (AnPl)’; ᣙ  ᣙ  ‘self’s son’; ᣙ  ᣙ  (ijmyéé) ‘self’s aunt’, e.g. (dííbyé iýmye) ‘that one’s (SgM) aunt’; ᣙ  ᣙ  (iňeé) ‘this (thing)’; ᣙ  ᣙ  (iwaá) ‘this slab-like thing’; ᣙ  ᣙ  idsíí ‘his daughter’; ᣙ  (ihdeé) ‘before, ahead of’, e.g. (táihdye) ‘before me’; máni (máánìí) ‘tobacco paste’; ᣙ ᣙ  (j)cáátuú ‘writing’, e.g. (dííbyéj caátu); ᣙ  (húmi (húmií) ‘face’. There are also some pronouns that have lexically marked high tone: ᣙ  (áålleé) ‘that one (SgF)’; ᣙ (áámyeé) ‘this one (SgF)’; ᣙ  áádií ‘that one (SgM)’; ᣙ  áánu (áánu) ‘this (SgM)’; ᣙ  ᣙ  (áást’eé) ‘those (few)’.

10That is, the genitive tone should dock on the head’s first syllable because it is trisyllabic, but it cannot do so because this syllable already has a tone, namely the lexically marked high tone.
3.5. LEXICALLY MARKED TONES

The noun kʰ₃ːnì ‘father’ has a lexically marked high tone on the first syllable.

(78) kʰ₃ːnìí (cáánií) ‘father’
    kʰ₃ːnínimɯ́ʦʰì (cáánímutsi) ‘fathers (DuM)’

This appears to be a two syllable root but the first syllable—being both lexically marked high tone and long—counts as two syllables (moras) for determining where to dock the genitive tone. Since the root counts as three syllables (moras), the tone should dock on the first syllable of kʰ₃ːnì, but it is blocked by the lexically marked high tone; this explains why the possessor bears high tone in example 79: ¹¹

(79) a. tʰáː ⒇ kʰáːni (tááciáánií) ‘my father’
    b. tíː ⒇ kʰáːni (díicyáánií) ‘your father’
    c. íː ⒇ kʰáːni (jíicyáánií) ‘self’s father’

Recall that the *LLX constraint discussed in section 3.6 prohibits adjacent low tones except at the end of a tonal phrase. Thus, a lexically marked low tone normally blocks the docking of ⒇ on an adjacent syllable. Is this also true of a lexically marked high tones? Do they also block the docking of adjacent ⒇? The tone derivations of máːnì-má-re-húkʰò and ámáːnà-mú-re-húkʰò in figure 3.10 show that a lexically marked high tone does not block the docking of ⒇ on an adjacent syllable.

Figure 3.10 TD: máánimárejuco, ámánamúrejuco

¹¹However, this is not always the case, as seen in the following example:

tíːʧɛ́ ⒇ ‘kʰáːni (díílléj caáni) ‘her father’
mɯ́ːʔá ⒇ ‘kʰ₃ːnínimɯ́ʦʰì (múúháj caánimutsi) ‘our parents’
Thus, the *llx constraint is not about lexically marked tones per se, but only about lexically marked low tones. This supports seeing the *llx constraint as a direct consequence of the Obligatory Contour Principle (OCP).

3.5.3 Nonfinite verbs

Another type of lexically marked tone is the result of a derivational process: verbs are made nonfinite by imposing a low tone according to the following rule:

\[
\begin{align*}
\sigma & (\sigma (\sigma)) \, ]_V\# \\
\uparrow & \\
\sigma & (\sigma (\sigma)) \, ]_N\#
\end{align*}
\]

That is, if the root is mono- or bisyllabic, the initial syllable bears low tone; if it is any longer, the antepenult bears low tone. This nonfinite low tone delinks any conflicting lexically marked tones the host might have (see section 3.11). Consider example 80. (N represents the nonfinite low tone and S represents the high tone of a subordinate verb.)

(80) a. Ó ájtyumí táábóóbeke.
   b. Ó ájtyumí taabóóbeke.

\[
\begin{align*}
\text{ó á}^x (\text{ájtyumí} - \text{tāábóóbeke}) & \begin{cases}
a. \text{tʰːpóːpɛ̀} \\
b. \text{tʰːpóːpɛ̀} \\
\text{doctor} - \langle \text{SgM} \rangle
\end{cases} - \text{kʰɛ́} - \text{objAn}
\end{align*}
\]

‘I saw {a. him doctoring.’ (subordinate) 
   b. the doctor.’’ (nonfinite)

In 80a the \text{L} of -\text{L}:pe \langle \text{SgM} \rangle is delinked by the \text{L} of -\text{L}kʰɛ́ ‘objAn’. In 80b the \text{L} of -\text{L}:pe \langle \text{SgM} \rangle is blocked by the nonfinite low tone on the root’s initial syllable.

Compare the tone derivations of the finite verbs tʰú ámbɛ́betɛ́sʰó-\text{ʔi} and tʰú ámbɛ́betɛ́sʰó-ːpɛ̀ in figure 3.11 with those of the nonfinite forms tʰú ámbɛ́betɛ́sʰʊ, tʰú ámbɛ́betɛ́sʰó-ːpɛ̀ and tʰú ámbɛ́betɛ́sʰó-ːpɛ̀ in figure 3.12. Note that each verb in 3.12 is made nonfinite by putting the nonfinite low tone on the antepenult. (See section 4.1 for further discussion and examples.)

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3.6 The *LLX Constraint

A fundamental fact about Bora tone—one that has a pervasive influence on the system—is that a sequence of low tones is not allowed except at the end of a word, where at most two low tones may occur. For example, see (81):

(81) úm.mèʔè (úmehe)  ‘tree’
úm.mèʔè.kʰò.pà (úmēhćoba)  ‘big tree’

We will refer to the constraint against a sequence of nonfinal low tones as the *LLX constraint. It can be formalized as follows:

\[ \text{\textbullet} \sigma \sigma \text{\textbullet} \]

Figure 3.13 The *LLX constraint

The *LLX constraint applies absolutely within a word, but also across word boundaries within a tonal phrase. This is crucial to our analysis of the tone of the genitive construction in section 9.1.
3.7 Phrase final tone changes

With rare exceptions, the final syllable of every morpheme is unspecified for tone. Whether this syllable becomes high or low tone depends on whether it occurs at the end of a tonal phrase or, if not final, on the morpheme(s) that follow(s). Thus, a word’s final tones are a clue to whether the phonological phrase continues or ends.

We are not presently able to precisely characterize “phrase” or “phrase final.” The end of a sentence or utterance are clearly phrase final but there are also sentence-medial cases where the “phrase final” changes apply. This subject begs for further research.

We will now discuss two rules that apply phrase finally: penultimate low tone split (PLTS) and final low tone split (FLTS).

3.7.1 Penultimate low tone split

The first rule to be discussed is PENULTIMATE LOW TONE SPLIT (PLTS):

\[ \sigma \sigma \rightarrow \sigma \sigma / \sigma \#\# \]

There are three things to note about PLTS:

1. PLTS may never apply to a syllable that follows a low tone because the result would violate the *LLX constraint. However, this need not be stated explicitly in the PLTS rule if the *LLX constraint is understood as a general constraint on Bora phonology.
2. PLTS avoids a sequence of three moras of low tone.
3. The syllable projected from the mora (length) bears high tone. This is stipulated in figure 3.14 on the assumption that PLTS applies after DHT. However, it may be possible to reformulate the rules with PLTS preceding DHT, thus assigning high by default rather than by stipulation.

---

12 In that the structural change of PLTS and FLTS is the same, it might be possible to capture both with a single rule, but the conditions for its application would have to be very complicated.
3.7. PHRASE FINAL TONE CHANGES

PLTS is illustrated by the tone derivations of \(\text{fjámàárà} \) and \(\text{mà}^h\text{fó}-\text{bà}:\text{pè} \) in figure 3.15:

<table>
<thead>
<tr>
<th>llama</th>
<th>ra</th>
<th>majcho</th>
<th>eat</th>
</tr>
</thead>
<tbody>
<tr>
<td>L L</td>
<td>FDLT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>DHT</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>:H</td>
<td>PLTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>llama</td>
<td>ra</td>
<td>‘lemon’</td>
<td></td>
</tr>
<tr>
<td>L FDLT</td>
<td>H</td>
<td>PLTS</td>
<td></td>
</tr>
</tbody>
</table>

\(\text{majchó-va-ábe} \) ‘he came to eat’

Figure 3.15 TD: llama|ra, majcho|va|ábe

In (82) the first vowel of \(k^h\text{ù:mù} \) ‘drum’ does not split because it is not phrase final but it does split in (82b) because it is at the end of the phrase:

(82) a. \(\text{Cuúmu} \) ó \(\text{ájtyumáhi} \).
   b. \(\text{Ó \ ájtyumí cuúmu} \).
   a. \(k^h\text{ù:mù} \) ó \(\text{á}\text{t}^h\text{ù:mi}-\text{ʔì} \)
      \(\text{drum} \) \(I \text{ saw-(t)} \)
   b. \(\text{ó \ á}\text{t}^h\text{ù:mi}-\text{ʔì} \text{k}^h\text{ù:mù} \)
      \(I \text{ saw-(t)} \) \(\text{drum} \)

(83) a. \(\text{t}^h\text{è-ʔà:mi-hí} \) (těháamíjí) ‘those (leaves, papers, books,…)’
   b. \(\text{t}^h\text{è-ʔà:mi} \) (těháámí) ‘that (leaf, paper, book,…)’

The long vowel of \(\text{i:hù} \) ‘horse’ splits when it is in the penult, as in (84a).
It does not split in (84b,c) because the long vowel is not in the penult (nor does it bear low tone):\(^{13}\)

(84) a. \(\text{i:hù} \) /\(\text{i:hù}/ \) (\(\text{i:jù} \)) ‘horse’
   b. \(\text{i:hù:mù} \) /\(\text{i:hù-mù}/ \) (\(\text{ï:fjumu} \)) ‘horses’
   c. \(\text{i:hù:mù:k}^h\text{è} \) /\(\text{i:hù-mù-k}^h\text{è}/ \) (\(\text{ï:fjúmuke} \)) ‘horses (acc)’

The long vowel of \(\text{i:hù:xu} \) ‘dove’ splits in the penult, as in (85a–c). It does not split in (85d) because the long vowel does not bear low tone, nor is it in the penult. It does not split in (85e)—even though the vowel is in the penult—because the word does not end the phonological phrase.

\(^{13}\)The high tone on the initial syllable of (84b and c comes about by default as discussed in section 3.3.2.
(85) a. ṹˣɯ̀ː (íjuú-u) ‘dove’
    dove-(round)

b. ṹˣɯ̀ː-mù (íjuú-mu) ‘doves’
    dove-plAn

c. ṹˣɯ̀ː-mútsʰi (íjuú-u-mútsi) ‘two doves’
    dove-(round)-DuM

d. ṹˣɯ́ː-mù-kʰɛ̀ (íjúůmuke) ‘doves (acc)’
    dove-plAn-objAn

e. ṹˣɯ̀ː-mù ʦʰáː-ʔì (Ɨ́juu mu tsááhi.) ‘The doves come-(ø)
    are coming.’

Consider 86 (from example 769 on page 308). In 86a, which has a direct
quote, /nɛ̀ːpɛ̀/ ‘he said’ ends a phonological phrase, and thus undergoes
PLTS. By contrast, 86b has an indirect quote, so the phonological phrase
continues after /nɛ̀ːpɛ̀/; in this case PLTS does not apply because its con-
ditions are not met:

(86) a. Oke neébe, “Péjcore ...”.

b. Oke née péjcore ....

a. òkʰɛ̀nɛ̀ɛ́ pɛ̀pʰɛ́ˣkʰòɾɛ̀ ‘He said to me, “Tomorrow...”

b. òkʰɛ̀nɛ̀ː pɛ̀ pʰɛ́ˣkʰòɾɛ̀ ‘He told me that tomorrow...’

The singular masculine pronoun /tiːpɛ/ (diibye) is really tì- ‘that’ followed
by -l:pe (SgM), as in figure 3.16a. The result of this union is represented
in 3.16b, where both the low tone (L) and the mora (m) have become part
of the preceding syllable. This form, tìpɛ̀, occurs when NOT at the end of
a phrase. (The two low tones are allowed because they occur at the end
of a word.) At the end of a phrase PLTS applies to produce tìípɛ̀ (diibye),
as in 3.16c:

<table>
<thead>
<tr>
<th>a. underlying</th>
<th>b. NOT phrase final</th>
<th>c. phrase final</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>σ</td>
<td>σ</td>
<td>σ</td>
</tr>
<tr>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>µ + µ</td>
<td>µ</td>
<td>µ</td>
</tr>
<tr>
<td>t i p e</td>
<td>t i p e</td>
<td>t i p e</td>
</tr>
</tbody>
</table>

Figure 3.16 The singular masculine pronoun

Now compare 87a and b, both phrase final. In 87a, -l:pe cannot dock
its L because the preceding -l:tʰɛ has already docked its L. Consequently
the word does not satisfy the conditions for the application of PLTS.14 By

14 ṹːhɛ̀tʰɛːpɛ̀ (úújeteébe) would violate the *LLX constraint.
contrast, in 87b -ːpɛ can dock its low tone so PLTS does apply:

(87) a. ú:ːhɛː-tʰɛː-ːpɛ (úːjétɛ́ːbe) ‘he goes to inspect’
        inspect-go.do-(SgM)
 b. úːhɛː-hɛː-ɛːpɛ (úːjéjɛ́ːbe) ‘he returns from
        inspect-do.come-(SgM) inspeacting’

Further examples follow:

(88) a. tːːpɛ ʧiːjò (Doobe llihíyo. nonfinal) ‘Father eats (meat)’
    b. tːːpɛ́ (Doːbe. final) ‘He eats (meat).’

(89) a. àːʔɨ́βɛː-ːpɛ ʧìʔí-jò (Aahíveebé llihíyo. nonfinal) ‘Father visits.’
    b. àːʔɨ́βɛː-ɛː (Aahíveebé. final) ‘He visits.’

Gloss  nonfinal  final
‘thm–(SgM)’  àːpʲɛ́  (aabye)  àːpʲɛ́  (aábye)
‘grater’  kʰáʦʰòːkpà  (cátsóowa)  kʰáʦʰòːkpà  (cátsóówa)
‘river’  tʰɛːʔì  (teehi)  tʰɛːʔì  (teéhi)
‘trail’  hɯːβà  (juúva)  hɯːβà  (juúva)

In this section, in the phonetic-phonemic form of examples we have represented the output of PLTS (iː, èː, àː,...). Elsewhere we generally represent the underlying form (i, è, à,...) counting on the reader to understand that PLTS applies, particularly since the orthographic form represents the output of PLTS.

### 3.7.2 Final low tone split

We now consider the second rule that applies at the end of a phrase, FINAL LOW TONE SPLIT (FLTS). This rule—which seems to be optional—“splits” a phrase-final low tone vowel into a sequence of vowels bearing low and high tone. FLTS may apply to the final syllable of (1) a monosyllabic word, (2) a bisyllabic word provided the penult bears high tone, and (3) a longer word provided the penult and antepenult bear high tone.\(^\text{15}\)

\(^{15}\) FLTS may also apply following nouns that have a lexically marked high tone on the penult. When such nouns are followed by suffixes, they seem to have a lexically marked high on the final syllable (although this is not without exceptions, ones we have yet to understand). Thus, FLTS may apply in some cases to high tones (rather than low ones). We must reserve judgement on this issue.

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For example, in 90a “house” does not terminate the phonological phrase so FLTS does not apply, in contrast to 90b where it does apply:  

(90) a. Ja méénuúbe.
    b. Méénuube jaá.

Further examples follow:

<table>
<thead>
<tr>
<th>GLOSS</th>
<th>MEDIAL</th>
<th>FINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>this trail</td>
<td>íh’ùù</td>
<td>(íjyu) íh’ùù́</td>
</tr>
<tr>
<td>husband</td>
<td>áh’ùù</td>
<td>(ájyu) áh’ùù́</td>
</tr>
<tr>
<td>this.SgM</td>
<td>á:nùù</td>
<td>(áánu) á:nùù́</td>
</tr>
<tr>
<td>town</td>
<td>kʰ:ó:mí</td>
<td>(cóomí) kʰ:ó:mí́</td>
</tr>
<tr>
<td>porpoise</td>
<td>ámáná́</td>
<td>(ámána) ámáná́́</td>
</tr>
<tr>
<td>town-only</td>
<td>kʰ:ó:mí-jë</td>
<td>(cóomíye) kʰ:ó:mí-jë́</td>
</tr>
<tr>
<td>salt</td>
<td>kʰ:áná:má</td>
<td>(cánáma) kʰ:áná:máá</td>
</tr>
</tbody>
</table>

In the following, compare the singulars, in which the stem final vowel splits, with the plurals, in which it does not.  

16In 90, the alternation between mé:núù:pë (nonfinal) and mé:núù:pë (final) also illustrates PLTS.

17Note that in the first two examples the root of the plural ends with a long vowel whereas in the others it does not. We do not know why.

Under the right conditions the plural forms could also undergo FLTS, but are here not represented as having undergone it. Recall that FLTS is an optional rule.
3.8. THE INTERACTION OF TONE AND VOWEL LENGTH

Example 91a results from FLTS, 91b results by the addition of the classifier -ᵲɯ (spherical), and 91c results by the subsequent addition of the pluralizer -ːnɛ̀ ‘pln’:

(91) a. kʰáːtʰɯ̀ɯ́ (cáátuú) ‘sweet potatoes (collective)’
    b. kʰáːtʰɯ̀-ɯ̀ (cáátuú) ‘sweet potato (singular)’
    c. kʰáːtʰɯ̀-ɯ́-ːnɛ̀ (cáátuúúne) ‘sweet potatoes (plural)’

3.8 The interaction of tone and vowel length

The tone bearing unit (TBU) is the syllable, not the mora. The basic tone-assignment rules are blind to vowel length; they deal with syllables, not moras:

1. They do not assign tone to a mora that is not a syllable.
2. Syllables are treated as adjacent (e.g., by the *LLX constraint) even if a mora intervenes. For example, consider the tone derivation of mé:ní-ːβɛː-ːpɛ̀ in figure 3.18:

```
<p>| |</p>
<table>
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</table>
|   | ≤
| | ≤|   |
| | ≤| ≤|   |
| | ≤| ≤| ≤|   |
| | ≤| ≤| ≤| ≤|   |
| | ≤| ≤| ≤| ≤| ≤|   |

mé:ní-ːvye-ébe ‘He became a pig.’
```

Figure 3.18 TD: mééníívyeébe

The ˨ that -˨ːpɛ (SgM) docks on the end of -˨ːβɛ ‘become’ is treated as adjacent to the ˨ that -˨ːβɛ docks on the end of mé:ni even though a mora (length) intervenes between them; this is clear because the first of these is delinked to meet the *LLX constraint. Note that in the derivation delinking is represented by “=” (equal sign). (For further discussion of delinking, see section 3.11.2.)

Likewise, see the second derivation of figure 3.28, page 86. The mora of the ⟨SgM⟩ suffix does not count as a tone bearing unit standing between the ˨s of the ⟨SgM⟩ and negative suffixes. That is, these two ˨s are adjacent.

There is one—and only one—allophonic (“implementation”) rule that links vowel length and tone, namely the phenomenon captured by PLTS discussed in section 3.7.1. (FLTS is another potential candidate, but does not seem to require that the final syllable be long.)
The tones with which words are cited, that is, spoken in isolation, are often different than the tones they bear when used in a context. For example, to speak about a verb, the nonfinite form (see 4.1, page 100) must be used.

Theoretically, bisyllabic words might have the following tones: HH, HL LH, or LL. All may occur in the context of a sentence, but in isolation bisyllabic words are only LL,\(^{18}\) for example, kʰùmı ‘arrowroot’, kpàˣpʰì ‘man’, tʰà₄kʰù ‘agouti’, nòˀkʰò ‘stork’, màˣʧʰò ‘eat, food’, titʰè ‘they (AnPl).

Theoretically, trisyllabic words might have the following tones: HHH, HHL, HLH, HLL, LHLL, LLH or LLL:

1. LLL and LLH are impossible because they violate the \(*llx\) constraint.
2. HLH, LHH, and HHH do not occur in isolation because the final syllable would become low by FDLT. The first two would become HLL and LHL, respectively. The last would become HHL, which would then become HHL.H by FLTS.
3. Words with HHL tones undergo FLTS, becoming HHL.H; for example, ámánàá ‘porpoise’, kʰánáːnàá ‘salt’.
4. The remaining two possibilities occur: HLL (e.g., níːβɯ̀kpà ‘deer’, úmɨ̀ʔɛ̀ ‘field’) and LHL (e.g., kpàˣkʰóʔɛ̀ ‘flowering plant’).

### 3.10 Tone changes caused by suffixes

Affixes are added cyclically, possibly modifying the tones of their hosts. Thus it is necessary to understand the tonal properties of each affix, as well as any lexically marked tones borne by the root or stem.

We will illustrate this in three sections: suffixes that affect the host’s final tones in 3.10.1, affixes that affect the host’s initial tones in 3.10.2, and suffixes that affect initial and final tones in 3.10.3.

\(^{18}\)Those that are HL, as by a lexically marked initial high tone, become HL.H by FLTS; for example, /kʰōːmi/ [kʰóːmiː] (cóómi) ‘town’.
3.10.1 Suffixes affecting the host’s final tones

Many suffixes affect the host’s final tones. For example, -tʰɛ ‘go to do’ imposes a low tone on the preceding syllable, as in 92b and 93b.\(^\text{19}\)

(92) a. ó m̱tʰóʔi  (Ó majchóhi.) ‘I eat.’
    b. ó m̱tʰo-ʔɛʔi  (Ó májchatéhi.) ‘I go to eat’.
      I eat-go.do-⟨t⟩

(93) a. ó àʔiβɛʔi  (Ó aahívéhi.) ‘I visit’.
    b. ó àʔiβ-tʰɛʔi  (Ó aahívetéhi.) ‘I go to visit’.
      I visit-go.do-⟨t⟩

-⁰⁰mɛ (⟨AnPl⟩) imposes a low tone on its host’s penult; for example, ma’tʰó ‘to eat’ (as in 92a) becomes m̱tʰo-mɛ ‘they ate’. The stem imi-pa’tʰo ‘to fix’ becomes imípa-tʰ-o-mɛ ‘they fix’. In 94 the low tone of -⁰⁰mɛ coincides with that of -mɛ ‘reflexive’\(^\text{20}\) and in 95 it coincides with the low tone of -tʰɛ ‘go to do’.

(94) f̱tẖá-mɛ-mɛ  (Íjtsámeímye.) ‘They think.’
      think-r/p-⟨AnPl⟩

(95) àʔiβ-tʰɛ-mɛ  (Aahívetéme.) ‘They go visit.’
      visit-go.do-⟨AnPl⟩

The suffix -kp(u) (-wu) ‘diminutive’ bears a low tone on its first syllable. This forces the host’s final syllable to bear high tone to avoid violating the *llx constraint, even when the second syllable of -kp(u) is not realized word finally, as in 96 and 97:

(96) ṯfɛ-ʔo-kpá\(^\text{21}\) (llééhowa) ‘door’
    ṯfɛ-ʔo-kpá-kpù (llééhówáwu) ‘little door’
    door-⟨slab⟩-dim

(97) kpá-kʰóʔɛ  (wajcóhe) ‘flower-bearing tree’
    kpá-kʰ-ʔɛ-kpù (wajcóhéwu) ‘little flower-bearing tree’
    flower-⟨tree⟩-dim

\(^{19}\) The first syllable of the verb in 92a bears a low tone imposed by -ʔi (t). The first syllable of the verb in 92b bears high tone by default; if it were low, it would violate the *llx constraint.

\(^{20}\) At the end of section 5.8.2, page 148, it is suggested that -mɛ ‘reflexive, passive’ is fused with the preceding root.

\(^{21}\) The morpheme ṯfɛ-ʔo- is a bound root. It only occurs with -kpá ⟨slab⟩. The combination means ‘door’.
The host’s penult and preceding syllables bear high tones—by default—unless lexically marked as low. For example, the second syllable of ɨmɨʔɛ ’planted field’ bears a lexically marked low tone which, when -kpù(ɨ) ‘diminutive’ follows, remains low, as in 98:

(98) úmîʔɛ-kpù (úmîhéwu) ‘little planted field’

field-dim

In many cases lexically marked low tones block the docking of a suffix’s tone. For example, the penult of ítsʰá-mɛi (think-r/p-) ‘think’ bears a lexically marked low tone and this blocks the docking of the 1 of -tʰɛ ‘go to do’:

(99) ó ítsʰá-mɛí-tʰɛ-ʔì (Ó fjtsámeîtëhi.) ‘I go to think.’
    I think-r/p-go.do-

Likewise, consider the result of suffixing 1-βa ‘have’ to kʰarâkʰa ‘chicken’ in 100:

(100) ó kʰârâkʰa-mûr-βá-ʔì (Ó cáracámuváhi.) ‘I have chickens.’
    I chicken-plAn-have-

The 1 of 1-βa may not dock because it would directly follow the root’s lexically marked low tone, thus violating the *LLX constraint.

The resolution of such tone conflicts is further discussed in section 3.11.

### 3.10.2 Affixes that affect the host’s initial tones

The suffixes -kʰa (-ca) ‘counterfactual conditional’, -kʰō:kʰa (-cooca) ‘when’, -1kʰi (-kl) ‘purpose’, -1hːβà (-jiːva) ‘deny’, and others, seem to impose a high tone on their host’s initial syllable. For example, in 101, initial syllable of kʰúkpàkʰà ‘sleep’ bears a high tone on its first syllable (discounting the pronominal proclitic) because of -kʰa (-ca) ‘counterfactual conditional’:

(101) ímí muha mecúwaca tsá muha mecheméturóhi.
    ímíʔ mûr?à mè kʰúkpà-kʰà
    good we.ex SAP sleep-CF

    tsʰâ mûr?à mè tʰéme-tʰù-ʁó-ʔì
    not we.ex SAP be.ill-neg-frs-
    ‘If we (ex.) had slept well, we would not have gotten sick.’

Such cases are discussed further in section 3.12.1.
3.10.3 Suffixes affecting both initial and final tones

Some suffixes affect the host’s initial and final syllables. Thus, the suffix #Hôtel(−tu) ‘negative’ imposes a high tone on its host’s initial syllable, as in the previous section, as well as a low tone on the syllable preceding the suffix (that is, unless the host is monosyllabic, in which case the initial high tone prevails). See chapter 13 for further discussion and examples.

The same is true for -híβà ‘deny’, as in 102. The verb akpakʰɯnɯ has lexically marked low tones on its first and third syllables. The high tone imposed on the first syllable overrides the lexically marked tone; the tone imposed on the host’s final syllable docks on -ːpɛ ⟨SgM⟩. (See also the tone derivation of figure 3.20, page 81.)

(102) akpákʰɯnɯ-ːp-híβà (áwácunúúbejííva) ‘He has not yawned.’
yawn-⟨SgM⟩-deny

3.11 Tone conflicts and their resolution

As suffixes are added one by one to a root or stem, tone conflicts arise when one low tone would be adjacent to another low tone (other than word finally). This happens in three cases:

1. The host’s final syllable has a low tone and the suffix has a low tone on its initial syllable.
2. The host’s penult has a low tone and the suffix should dock a low tone on its host’s final syllable.
3. The host’s antepenult has a low tone and the suffix should dock a low tone on its host’s penult.

These are represented in table 3.2:

<table>
<thead>
<tr>
<th>ANTEPENULT</th>
<th>PENULT</th>
<th>FINAL</th>
<th>and a suffix contributes low tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>ːσ</td>
<td>ːσ</td>
<td>σ</td>
<td>ːσ…</td>
</tr>
<tr>
<td>ːσ</td>
<td>σ</td>
<td>σ</td>
<td>-ːσ…</td>
</tr>
</tbody>
</table>

Conflicts must be resolved by BLOCKING (3.11.1) or by DELINKING (3.11.2). Blocking is the normal way tone conflicts are resolved.
Delinking—the exceptional case—applies only with certain suffixes, as discussed below.22

3.11.1 Blocking

One way to resolve a tone conflict is to not dock the suffix’s low tone. We call this BLOCKING: the failure to dock the $\uparrow$ of a suffix because doing so would violate the $^*\text{LLX}$ constraint. In tone derivations it is represented by “+” as follows:

```
+ blocked
L suffix
```

For example, -tʰɛ or -mɯʦʰi normally docks a low tone on the host’s final syllable. However, when added to âkpaʰ'ùnù ‘to yawn’—which has a lexically marked low tone on the penult—the docking of the suffix’s low tone is blocked; see example 103 and the tone derivation of âkpaʰ'ùnú-tʰɛ-ʔì in figure 3.19:

(103) a. ő âkpaʰ'ùnú-tʰɛ-ʔì ő awácunútéhi ‘I go to yawn.’

\[\begin{array}{l}
łakpákʰŁɯnɯ́-tʰɛ́-ʔì (ő awácunútéhi) ‘I go to yawn.’
\end{array}\]

b. ő âkpaʰ'ùnú-mɯ́ʦʰì (awácunúmútsi) ‘They(DuM) yawn.’

\[\begin{array}{l}
yawn-⟨DuM⟩\text{awacunu to yawn}
\end{array}\]

Figure 3.19 TD: awácunútéhi, úméhewáréjuco

In the tone derivation of úmɛ́ʔɛ̀kpá-rɛ́-hűkʰò figure 3.19 the $\uparrow$ of -hűkʰo ‘focus’ is blocked by the $\uparrow$ of -kpa ⟨slab⟩.

22There may be a third way to resolve conflicts, BUMPING (3.11.3); if so, it is a very restricted phenomenon that applies only to nominal roots.
3.11. TONE CONFLICTS AND THEIR RESOLUTION

In the tone derivation of máxʧʰó-βá-mɛ̀-hɨː(βà) in figure 3.20, the 1 of -1οme (-me) is blocked by the 1 of -1οβα.23

Compare the tone derivations of máxʧʰ-tʰɛ́-ʔì, máxʧʰ-hɛ́-ʔì, and máxʧʰ-βà-ːpɛ̀ in figure 3.21, in which no blocking occurs, with those of máxʧʰ-tʰɛ́-ːpɛ̀ and máxʧʰ-βά-mɛ̀ in figure 3.22, in which blocking does occur:

Figure 3.21 TD: májchó-té-hi, májchó-jé-hi, majchó-va-ábe

23 Also #1…-1οhîx(βα) docks a high tone on the first syllable or, to put it another way, it delinks the 1 placed on the first syllable by -1οβα, so this syllable becomes high tone by default. We return to this in section 3.11.2.3 below.
CHAPTER 3. TONE

Figure 3.22 TD: májchótéébe, majchóváme

(Note that PLTS does not apply in the derivation of máxʧʰò-tʰɛ́-ːpɛ̀ in figure 3.22 because (1) the L of -tʰɛ’ gotodo’ blocks the docking of the Ł of -tʰɛ, so (2) the penult is not low, so does not satisfy the conditions for PLTS.)

Compare the tone derivations of tómáxkʰò-tʰɛ́-ːpɛ̀-βàˣ and ɨ́ˀβɛ̀tʰɛ́-tʰɛ̀-ːpɛ́-βàˣ in figure 3.23. In the first -tʰɛ’ ‘go to do’ docks its Ł and thus on the next cycle Łtʰɛ ⟨SgM⟩ cannot dock its Ł because it would be adjacent to the previously docked low, creating a violation of the *LLX constraint. By contrast, in the second derivation the Ł of -tʰɛ does not dock because of the root’s lexically marked low tone. Thus the Ł of -tʰɛ is not present to block the docking of the Ł of -tʰɛ.

Figure 3.23 TD: dómájco-té-ːbe-vaj, ɨhvété-te-ːbé-vaj

3.11.2 Delinking

In addition to blocking, another way to resolve a tone conflict is to suppress the host’s conflicting tone. We call this DELINKING: the delinking of a stem’s low tone so that a suffix’s Ł can be docked without violating the
3.11. TONE Conflicts AND THEIR Resolution

*LLX constraint. In tone derivations delinking is represented by “=” as follows, where xyz represents a suffix that delinks a preceding low tone so as to dock its low tone without violating *LLX:

\[
\begin{array}{c}
| \\
L | \\
| = L_{xyz} \\
\end{array}
\]

Delinking is a morphophonemic process that depends on the identity of the morphemes involved, whereas blocking is simply a phonological process driven exclusively by the *LLX constraint. We will now discuss specific cases.

3.11.2.1 Delinking by the person markers

The person markers\(^{25}\) (-\(\text{SingleOrDefault}\langle\text{SgM}\rangle\), -\(\text{SingleOrDefault}\langle\text{SgF}\rangle\), -\(\text{DuM}\), -\(\text{DuF}\) and -\(\text{AnPl}\)) delink conflicting tones; see the derivation of má\(\text{Single}^{\text{h}}\text{t}^{\text{h}}\text{o}-\text{t}^{\text{h}}\text{s}^{\text{h}}\text{t}^{\text{h}}\text{p}^{\text{h}}\text{e}\) in figure 3.24 and those of ímíp\(\text{Single}^{\text{h}}\text{t}^{\text{h}}\text{o}-\text{t}^{\text{h}}\text{s}^{\text{h}}\text{t}^{\text{h}}\text{u}^{\text{h}}\text{n}^{\text{h}}\text{h}^{\text{h}}\text{t}^{\text{h}}\text{s}^{\text{h}}\text{t}^{\text{h}}\text{p}^{\text{h}}\text{e}\) and ímíp\(\text{Single}^{\text{h}}\text{t}^{\text{h}}\text{o}-\text{t}^{\text{h}}\text{s}^{\text{h}}\text{t}^{\text{h}}\text{h}^{\text{h}}\text{u}^{\text{h}}\text{k}^{\text{h}}\text{h}^{\text{h}}\text{i}^{\text{h}}\text{t}^{\text{h}}\text{s}^{\text{h}}\text{t}^{\text{h}}\text{p}^{\text{h}}\text{e}\) in figure 3.25:

\[
\begin{array}{c}
\text{majcho to eat} \\
| L_{tso} cause \\
| = L_{:be} <\text{SgM}> \\
\end{array}
\]

\[
\begin{array}{c}
\text{majchó-tso-óbe 'He fed (someone).', or} \\
\text{majchó-tso-óbe 'He made (someone) eat.'} \\
\end{array}
\]

Figure 3.24 TD: májchó-tso-óbe

\(^{24}\) A low tone can also be delinked by adding an affix that imposes a high tone on a low-tone-bearing syllable; see figure 3.20, page 81, and the accompanying discussion.

\(^{25}\) These are classifiers so it is no surprise that their tonal behavior is like that of classifiers generally, as described in section 6.1.4.
However, the ı of the person markers is blocked by—not delinked by—the ı of a relocation suffix. For example, consider the derivations of figure 3.22. The first shows the ı of -ıtı’go to do’ blocking the ı of -ı:pe ⟨SgM⟩. The second shows the ı of -ı:óβa ‘come to do’ blocking the ı of -ı:óme ⟨AnPl⟩. However, contrary to this generalization, in example 104 the ı of -ı:ke ‘do after coming’ is delinked by the ı of -ı:pe ⟨SgM⟩:

(104) máxʧʰó-hɛ̀-ːpɛ̀ (Májchójeébe.) ‘He returned from eating.’
eat-do.come-⟨SgM⟩


Figure 3.26 TD: ní:vúwá-wúudi, úmɛ́héwá-wúuma
3.11. TONE CONFLICTS AND THEIR RESOLUTION

Figure 3.32, page 89, shows that -₁kʰɛ̂ ‘objAn’ can delink the ₁ of -₁ʧɛ ⟨SgF⟩. There may be a generalization: case markers can delink the tones of person markers.

We do not understand the tones of kpàʔáró-ûβû-tû ‘like my deceased mother’. The derivation of figure 3.27 suggests that -tu ‘like’ delinks the ₁ of -₁ûβû ‘maximum’:

```
<table>
<thead>
<tr>
<th></th>
<th>lexical</th>
</tr>
</thead>
<tbody>
<tr>
<td>L :</td>
<td>L_uvu</td>
</tr>
<tr>
<td>: : = L-_ du</td>
<td>like</td>
</tr>
<tr>
<td>: : : : : :</td>
<td></td>
</tr>
</tbody>
</table>
```

waháro-uvú-du ‘like my deceased mother’

Figure 3.27 TD: waháróuvúdu

However, this assumes -₁tu contrary to the tone we have posited for ‘like’ following nouns, namely -₁tu, as in kʰɛ́ːmè-tû ‘like an old man’ and the examples of 1080, page 424.

3.11.2.3 Delinking by #₁⁽H⁾-jìi(va) ‘deny’

In figure 3.20 above, we saw that #₁⁽H⁾-₁hɨː(βa) ‘deny’ docks a high tone on the first syllable, imposing itself where there was already a ₁ (in this case contributed by -₁βa). This delinking differs from delinking that avoids violations of the *LLX constraint when a low tone is docked on an adjacent syllable. Although different, we treat these both as delinking because (1) both types remove a low tone and (2) both are triggered by affixes that impose tone.

#₁⁽H⁾-₁hɨː(βa) ‘deny’ also delinks conflicting low tones, particularly those of a preceding person classifier subject, as illustrated in the tone derivations of ʧɛ́ːnɛ́-ːpɛ̀-hɨ́ːβà and áʔìbêβá-ːpɛ̀-hɨ́ːβà in figure 3.28:

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Figure 3.28 TD: llé:néébejì:va, á:hìvèváábejì:va

\[\text{lle:ne} \quad \text{to eat (fruit)} \quad \text{a:hive} \quad \text{to visit} \]

\[
\begin{align*}
\text{L:}_{-}\text{be} & \quad \text{<SgM>} \\
\text{L:}_{-}\text{va} & \quad \text{come.do} \\
\text{L:}_{-}\text{ji:va} & \quad \text{deny} \\
\text{FDLT} & \\
\text{DHT} & \\
\text{LLé:né:be-jì:va} & \quad \text{‘He did not eat (fruit)’} \\
\text{á:hívè-vá:be-jì:va} & \quad \text{‘He did not come to visit.’}
\end{align*}
\]

3.11.2.4 Delinking by -\(\text{₁σ}\) ‘future’

The morpheme -\(\text{₁σ}\) ‘future’ can delink the \(\text{₁}\) of -\(\text{₁tʰɛ}\) ‘go to do’, as seen in the derivation of ómá\(\text{₃}^{\text{ᵣ}}\)\(\text{₀-tʰɛ-ɛ-ʔi}\) in figure 3.29:26

\[
\begin{align*}
\text{o majcho} & \quad \text{to eat} \\
\text{L:}_{-}\text{hi} & \quad \text{<t>} \\
\text{FDLT} & \\
\text{DHT} & \\
\text{PLTS} & \\
\text{ó mágchó-te-é-hi} & \quad \text{‘I will go to eat.’}
\end{align*}
\]

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26Frequently the tones of a person-marking proclitic and the first syllable of the following verb are either high-low or low-high. (They may not, of course, be low-low due to the *LLX constraint.) Figure 3.29 is a rare case where both tones are high.
3.11. TONE CONFLICTS AND THEIR RESOLUTION

3.11.2.5 Delinking by -ro ~ -ra ‘frustrative, contraexpectation’

-\( \text{\L} \)ro ~ -\( \text{\L} \)ra (\(-\text{\textbar} \)ro ~ -\( \text{\textbar} \)ra) ‘frustrative, contraexpectation’ (frs) delinks the \( \text{\L} \) of the first syllable of \( \text{\L} \)huk\(^{\text{h}} \):o as demonstrated by the tone derivations of \( \text{\L} \)ť\(^{\text{h}} \)o-tš\(^{\text{h}} \)h-té-huk\(^{\text{h}} \):r-o:-pè and \( \text{\L} \)bè\(^{\text{h}} \)tš\(^{\text{h}} \)h-hé-huk\(^{\text{h}} \):r-a:-\( \text{\textbar} \)i in figure 3.30:

\[
\begin{align*}
\text{majcho} & \quad \text{to eat} & \quad \text{ihvete} & \quad \text{to finish}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{ts} & \quad \text{cause} & \quad \text{L}_\text{ts} & \quad \text{cause} \\
\text{L}_\text{t} & \quad \text{go} & \quad \text{L}_\text{t} & \quad \text{go}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{t} & \quad \text{already} & \quad \text{L}_\text{t} & \quad \text{already} \\
\text{L}_\text{j} & \quad \text{do} & \quad \text{L}_\text{j} & \quad \text{do}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{r} & \quad \text{frs} & \quad \text{L}_\text{r} & \quad \text{frs} \\
\text{L}_\text{=} & \quad \text{be} & \quad \text{L}_\text{=} & \quad \text{be}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{f} & \quad \text{FDLT} & \quad \text{L}_\text{f} & \quad \text{FDLT} \\
\text{H} & \quad \text{H} & \quad \text{H} & \quad \text{H}
\end{align*}
\]

\[
\begin{align*}
\text{majchó-tso-té-júcó:-ro-óbe} & \quad \text{i\textbar hvétë-tso-jé-júco:-rá-hi}
\end{align*}
\]

‘He already went to make them eat (but without succeeding).’

\( \text{i\textbar hvéte to finish} \)

\[
\begin{align*}
\text{L}_\text{ts} & \quad \text{cause} & \quad \text{L}_\text{ts} & \quad \text{cause} \\
\text{L}_\text{t} & \quad \text{do} & \quad \text{L}_\text{t} & \quad \text{do}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{r} & \quad \text{frs} & \quad \text{L}_\text{r} & \quad \text{frs} \\
\text{L}_\text{=} & \quad \text{hi} & \quad \text{L}_\text{=} & \quad \text{hi}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{f} & \quad \text{FDLT} & \quad \text{L}_\text{f} & \quad \text{FDLT} \\
\text{H} & \quad \text{H} & \quad \text{H} & \quad \text{H}
\end{align*}
\]

\[
\begin{align*}
i\text{hvétë-tsó-jé-rá-hi} & \quad \text{return from failing to make (someone) stop}
\end{align*}
\]

Figure 3.30 TD: májchótset'éjúcoóróóbe, i\textbar hvétëtsójéjúcoorahi

In the derivation of \( \text{i\textbar bët\^{h}} \)tš\(^{h}\)h-hé-rá-\( \text{\textbar} \)i in figure 3.31, \( \text{\L} \)ro ~ \( \text{\L} \)ra ‘frustrative’ delinks the low tone of \( \text{\L} \)hè ‘return from doing’ (do.come):

\[
\begin{align*}
i\text{hvete} & \quad \text{to finish}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{ts} & \quad \text{cause} & \quad \text{L}_\text{ts} & \quad \text{cause} \\
\text{L}_\text{t} & \quad \text{do} & \quad \text{L}_\text{t} & \quad \text{do}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{r} & \quad \text{frs} & \quad \text{L}_\text{r} & \quad \text{frs} \\
\text{L}_\text{=} & \quad \text{hi} & \quad \text{L}_\text{=} & \quad \text{hi}
\end{align*}
\]

\[
\begin{align*}
\text{L}_\text{f} & \quad \text{FDLT} & \quad \text{L}_\text{f} & \quad \text{FDLT} \\
\text{H} & \quad \text{H} & \quad \text{H} & \quad \text{H}
\end{align*}
\]

\[
\begin{align*}
i\text{hvétë-tsó-jé-rá-hi} & \quad \text{return from failing to make (someone) stop}
\end{align*}
\]

Figure 3.31 TD: i\textbar hvétëtsójérəhí

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3.11.3 Bumping

As discussed in section 3.5.2, nominal roots may bear lexically marked high tones. This is usually on the penult, which in most cases is also the initial syllable. Examples follow: hän ‘this (SgM)’, kʰhăni ‘father’, aman ‘porpoise’, kʰhõmi ‘town’, mäni ‘tobacco paste’, lʰtʰu’õnu ‘flashlight’. (For further examples see section 3.5.2, especially footnote 9.)

These nouns behave in unexpected ways when suffixes are added. The root’s final syllable undergoes FLTS when utterance final, suggesting that it bears low tone. However, the addition of certain suffixes suggests that it bears a lexically marked high tone. For example, -l-kʰɛ ‘objAn’ does not dock its L following hän ‘this (SgM)’ and hítʰɛ ‘self’s ones (AnPl):

(105) a. áːnɯ̀(this.SgMáánuú) ‘this one (SgM)’
    b. áːnɯ-kʰɛ(this.SgM-objAnáánukέ) ‘to this one (SgM)’

More research needs to be done before anything definitive can be said about this class of nouns and their tonal behaviors. Here we simply suggest that there is one more way to resolve tone conflicts, one we will call BUMPING. Since we do not know how general this phenomenon is, we will state it in terms of a single morpheme.27 -l(βa) normally docks a L on the penult of a nominal host. (The pattern for verbs is different.) When this L coincides with a lexically marked H, it seems that the L is “bumped” to the following syllable. This is illustrated in kʰhõmõ-hiβà ‘not a town’ and kʰhõm-hiβà ‘not a father’.

3.12 Grammatical tone

Tone plays a major role in Bora grammar. Here we mention tone patterns associated with particular grammatical structures.

1. The tone of the genitive constructions, discussed in section 9.1.
2. There are distinctive tones on imperative verbs. Two basic generalizations regarding these are:
   a. The imperative verb—including the pronominal prefix or proclitic—bears a low tone on the second syllable.
   b. The verb stem bears a low tone regressive to the antepenult: ...
   c. This delinks conflicting lexically marked tones.

For more details about imperatives, see section 14.1.1.

27There is some evidence that bumping also applies to -re ‘only’.

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We now discuss the tone on the verbs of subordinate clauses (3.12.1), the tone of the person marking proclitics (3.12.2), and the default tone of nouns and classifiers (3.12.3).

### 3.12.1 Tone on the verbs of subordinate clauses

The verb of a subordinate clause (as discussed in section 16.1) always begins with a high tone, as in 106. This high tone is represented with an s over the vowel to make the reason for this high tone more apparent.

(106) a. \( m^s\epsilon^h_\text{-}p\epsilon^h_{-}k^h_{-} (\text{májchóóbeke}) \) ‘the one (SgM) who ate-objAn’
    b. \( m^s\epsilon^h_\text{-}\epsilon^h_{-}k^h_{-} (\text{májchólleke}) \) ‘the one (SgF) who ate-objAn’
    c. \( m^s\epsilon^h_\text{-}m\epsilon^h_{-}k^h_{-} (\text{májchómeke}) \) ‘the ones (AnPl) who ate-objAn’

The suffix \(-L^k_{-}k\epsilon\) ‘objAn’ imposes a low tone on the preceding syllable, delinking the low tones docked by \(-L^p\epsilon (\text{SgM})\) in 106a and \(-L^{\text{SgF}}\) in 106b. In 106c we expect \(-L_{-}m\epsilon_{-}k\epsilon\) to impose a low tone on its host’s penultimate syllable (in this case, the initial syllable). However, this is a subordinate clause, so it begins with a high tone.

In figure 3.32 ú:jětʰɛ́-r̥-ɛ́-kʰɛ́ is a relative clause, with high tone on the first syllable as expected:

```
\begin{verbatim}
  u:je   arrive
   |   
  \|_te   go.do
   \|+    
   \|_ro   frs
\ H : :   |   subordinate
  : : : L_1le  <SgF>
  : : : : :   \|   
  : : = L_ke  objAn
  : : : : :   FDLT
  : : H H H : :    DHT
  : : : : :   \|   
  ú:je-tě-r̥-l̥e-ke
    ‘the one <SgF> who arrived’
\end{verbatim}
```

Figure 3.32 TD: újjetérólleke

The derivation of 107 is given in figure 3.33.

(107) dsjiβvétsomeke

\[ [sϊhιβ\epsilonₜsʰ\epsilonₜ]-m\epsilonₜ-kʰɛ́ \] ‘the ones who were killed-objAn’

die-caus-(AnPl)-objAn
Examples 108 and 109 contrast a sentence’s main verb with the corresponding verb in a relative clause:

(108) a. màʔtʰó-mɛ̀ (Majchóme.) ‘They are eating (bread).’
    b. màʔtʰó-mɛ̀ (Májchome) ‘those who are eating (bread)’

(109) a. tʰémɛ̀-ːpɛ̀ (Chémeébe.) ‘He is sick.’
    b. tʰémɛ̀-ːpɛ̀ (chémeébe) ‘the one (SgM) who is sick’

In examples 110a, 111a, and 112a, whether the verb is used as a relative clause or as a main clause, its initial syllable bears high tone; the relative clause verbs do so because they are subordinate whereas the main clause verbs do so by default. By contrast, the verbs of 110b, 111b, and 112b bear the nonfinite low tone on their initial syllables:

(110) a. kpáʔkʰó-ʔɛ̀ (wájcohe) ‘tree that is flowering’ or
    ‘The tree is flowering.’
    b. kpáʔkʰó-ʔɛ̀ (wajcohe) ‘a flowering tree’

(111) a. níːβà-ː (níívai) ‘river that is flowing’ or
    ‘The river is flowing.’
    b. níːβà-ː (niivái) ‘a flowing river’

(112) a. nɛ́ːβà-ʔɛ̀ (néévahe) ‘tree that bears fruit’ or
    ‘The tree is bearing fruit.’
    b. nɛ́ːβà-ʔɛ̀ (neeváhe) ‘fruit tree’

In 113 the first syllable of the verb of the relative clause has the expected high subordination tone:

(113) màʔtʰó-pɛ̀ ʊ:mí-hùkʰó-ʔi (Májchoobe oomjucóóhi.)
eat-⟨SgM⟩ return-now-⟨t⟩
‘The one who ate has already returned.’

28 The tones of 109b are those of a non-final position in which FLTS does not apply.
This is also true in 114a but not in 114b, which has a low tone on the first syllable. This tone is imposed by \(-\text{L}^{\text{βa}}\) ‘come to do’ and—presumably—resists the imposition of the subordination tone.

(114) a. Májchotéébé oomíjucóóhi.
    b. Majchóvaæbe oomíjucóóhi.

\[
\begin{align*}
\text{a. } & \text{ma}^{s}\text{ʧ}^{h} \text{-t}^{h} \text{-ːpɛ} \\
& \text{eat-go.do-(SgM)} \\
\text{b. } & \text{mà}^{s}\text{ʧ}^{h} \text{-β}^{a} \text{-ːpɛ} \\
& \text{eat-come.do-(SgM)} \\
\end{align*}
\]

‘The one who \{a. went b. came\} to eat has already returned.’

The suffixes of table 3.3 may follow the verb of a subordinate clause, the initial syllable of which bears a high tone.\(^{29}\)

Table 3.3 Suffixes that follow subordinate clause verbs

\[
\begin{array}{ccc}
\text{-k}^{h} \text{a} & \text{(-ca)} & \text{‘counterfactual conditional’} \\
\text{-k}^{h} \text{-ό}^{h} \text{a} & \text{(-cooca)} & \text{‘when’} \\
\text{ʔa}^{s}\text{ʧ}^{h} \text{і}(h^{i} \text{w}) & \text{(-hajchįįjyu \sim -hajchį)} & \text{‘if (conditional)’} \\
\text{i}^{h} \text{ų} & \text{(-ijyu)} & \text{‘when (at that time)’} \\
\text{ʔi}^{h} \text{i} & \text{(-ki)} & \text{‘purpose’} \\
\text{nàá}^{h} \text{a} & \text{(-náááca \sim -naa) } & \text{‘while’} \\
\text{ne}^{a} & \text{(-ne)} & \langle \text{event} \rangle \text{ or } \langle \emptyset \rangle \\
\text{ʔi}^{h} \text{u} & \text{(-tu)} & \text{‘negative’} \\
\text{ʔi}^{h} \text{β}^{a} & \text{(-jí́vа)} & \text{‘deny’}
\end{array}
\]

\(^{a}\) Generally a case marker or \(-\text{L}^{\text{βa}}\) ‘deny’ would follow \(-\text{ne}\).

There are various ways the host’s initial high tone might be analyzed:

1. The suffixes could be treated as discontinuous morphemes, the first part of which ensures that the host’s initial tone is high. This might be implemented in one of two ways:
   
   (a) It could simply impose high tone on the first syllable: \#(\text{L})\ldots-suffix.
   
   This possibility, while descriptively adequate, seems stipulative and unmotivated.

\(^{29}\) It is tempting to include \(-\text{L}^{\text{β}^{a} \text{ʔt}^{h}}\text{tu} (-\text{hdu}) \text{‘similar’ in this list but it follows nonfinite verbs, not subordinate clauses.}
(b) It could be a low tone prefix (\(\text{L}\)) that forces the initial syllable to bear high tone: \(^\#\text{L}\)-\(\text{H}\)...-suffix. (The host’s first syllable would have to bear high tone to avoid violating the \(^*\text{LLX}\) constraint.)

This suggestion can be immediately rejected. Recall that o ‘I’, ut ‘you’, i ‘self’, and me ‘SAP’ are proclitics that form a tonal phrase with the following verb. If \(\text{L}\) occurred between the proclitic and the verb, the proclitic should necessarily bear high tone. (Otherwise it and the following \(\text{L}\) would violate the \(^*\text{LLX}\) constraint.) However, this is not the case, as seen in mɛ\(^\text{FDLT}\)\(\text{H}\)\(\text{DHT}\) (SAP eat-pur memajchoki) ‘in order that we eat’ and i mɛ\(^\text{FDLT}\)\(\text{H}\)\(\text{DHT}\)\(\text{L}\_ke\) (self eat-\(\langle\text{event}\rangle\)-with imajchönema) ‘after eating’.

2. The initial high tone would be imposed by an independent process of subordination, and the suffixes of table 3.3 would subcategorize for a subordinate clause. For example, the subcategorization frame of \(\text{L}\)\(\text{ki}\) ‘purpose’ would be \([S_{\text{[+subordinate]}} ...] _\text{me} \langle\text{AnPl}\rangle\) (the verb being final within the subordinate clause). This subordination process could be implemented in either of the just-mentioned ways, namely simply imposing high tone on the verb’s first syllable or by a low tone prefix.

Thus, we adopt the third possibility: (1) the suffixes of table 3.3 subcategorize for a subordinate clause, and (2) subordination is marked by docking a high tone on the verb’s initial syllable. The derivations of imibajcho\(\text{ki}\) ‘to fix’ and májchóme\(\text{ke}\) ‘the ones (AnPl) who eat-\(\langle\text{AnPl}\rangle\)’ (from example 106c) are given in figure 3.34. In the latter, \(\text{L}\text{ke}\)\(\text{mɛ}\langle\text{AnPl}\rangle\) cannot dock its low tone because this would displace the high tone that marks subordination.

Finally, -\(\text{ne}\) \(\langle\text{event}\rangle\)—in contrast to \(\text{L}\text{mc}\) \(\langle\phi\rangle\) \(\langle\text{thing}\rangle\) and the -\(\text{ne}\) \(\langle\text{n}\rangle\) (discussed in section 13.2)—seems to delink any preceding low tones except the root’s lexically marked tones; see the derivation of tshíhi\(\text{ke}\)-ts\(\text{h}\)\(\text{i}\)-jó\(\text{ne}\)-\(\text{tʃi}\)\(\text{ʔ}\)\(\text{e}\) in figure 3.35:

\[\text{imibajcho-ki} \quad \text{májchóme-ke} \quad \text{those who ate-\(\langle\text{AnPl}\rangle\)}\]

Figure 3.34 TD: ímibajchoki, májchômeke

\[\text{imibajcho} \quad \text{to fix} \quad \text{majcho} \quad \text{to eat}\]

\[\text{H} : : | \quad \text{subordinate} \quad \text{H} : \quad \text{subordinate}\]

\[\text{imibajcho-ki} \quad \text{májchóme-ke} \quad \text{those who ate-\(\langle\text{AnPl}\rangle\)}\]

\[\text{imibajcho-ki} \quad \text{májchóme-ke} \quad \text{those who ate-\(\langle\text{AnPl}\rangle\)}\]

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3.12. The tones of proclitics

When the pronouns o ‘I’, u ‘you’, i ‘self’, and mɛ ‘SAP’ occur before a verb, they cliticize to it. By virtue of forming phonological phrases with their host, they must bear tones that—when taken together with their host—do not violate the *Llx constraint. They are assigned tone by the following rule:

**subordinate**: If the verb is subordinate, the pronoun bears low tone. (This is always possible because the initial syllable of the verb bears high tone.) See example 115 below.

A clause negated by tʰaˀ ‘no’ behaves as though subordinate. 31 See example 116 below.

**main**: If the verb is not subordinate, then there are two cases:

**monosyllabic stem**: If the verb stem is monosyllabic, the pronoun bears low tone. This is presumably because, to take example 117a below, - reinforce dock its  on the proclitic. Likewise, in 117b, presumably -¾ huPeople ‘now’ imposes its  on the proclitic. (In both these cases, after a polysyllabic verb the  would fall on the root, not on the proclitic.) For some reason, however, it is not the case when the future tense follows, as in 117c.

---

31 This is not the only reason to regard such clauses as subordinate: they end with an explicit or implicit -ne ⟨ø⟩, which behaves like a subordinator.
polysyllabic root: Otherwise the pronoun bears high tone. See example 119.

Example 115 illustrates the first case (subordinate):

(115) mè kʰáˀkʰúʔtsʰó-nè (mecáhcújtsóne) ‘after you believe-(event) have believed’

Example 116 further illustrates the first case showing that negations behave like subordinate clauses:

(116) Tsá o májchotétú(ne).
    tsʰàˀò máʔtʰó-tʰé-tʰú-(nè) ‘I did not go to eat.’
    no I eat-go.do-neg-(n)

Example 117 illustrates the second case (main verb) with a monosyllabic root:

(117) a. ò tóːʔì (O dóóhi.) ‘I eat meat.’
    I eat-(t)

b. ò pʰé-húkʰóː-ʔì (O péjucóóhi.) ‘I go now.’
    I go-now-(t)

c. ó pʰé-húkʰó-ó-ʔì (Ó péjúcoóhi.) ‘I will go now.’
    I go-now-fut-(t)

Compare 118a and b. In 118a the ː of -ʔì reaches the proclitic, whereas in 118b it can not do so because of the additional syllable added by the future.

(118) a. ó nèː-ʔì: (O nééhi.) ‘I say.’
    I say-(t)

b. ó nèː-èː-ʔì (Ó neéhi.) ‘I will say.’
    I say-fut-(t)

Example 119 illustrates a main verb with a polysyllabic root; the proclitic bears high tone as expected:

(119) ó máxʧʰó-tʰé-ʔì (Ó májchotéhi.) ‘I go eat’
    I eat-go.do-(t)

3.12.3 The default tone of nouns and classifiers

Ordinarily a noun—including its derivational and inflectional suffixes—ends in two low tones. (This is not true for verbs, which end in a single low tone.) For example, consider kpaʰpʰi ‘man’ and niːβɯkpa ‘deer’ in 120:
A floating low tone occurs at the boundary between a classifier and its host (that is, the morpheme to which it is attached). This tone is docked by the following rule: (1) Monosyllabic classifiers dock a low tone on their host’s final syllable. (2) Bisyllabic classifiers dock a low tone on the final syllable of a polysyllabic host. After a monosyllabic host, the low tone docks on the classifier’s initial syllable. (3) Classifiers having more than two syllables bear the low tone on their initial syllable. See section 6.1.4 for further details.

### 3.13 The rule of three and boundary marking

The placement of low tone (1) in nonfinite verbs, (2) in the genitive construction, and (3) when a classifier follows are all sensitive to the number of syllables of the unit, counting from its end:

1. Verbs are made nonfinite by putting a low tone on the stem’s earliest syllable not more than three syllables from the end: \( \sigma(\sigma(\sigma)) \). (It is as though the \( N \) were tethered to the end of the stem with an elastic that allowed it to stretch up to three syllables but no further.)

2. The genitive low tone (\( G \)) docks on the modifier’s final syllable unless the head is more than two syllables long, in which case it docks on the head’s initial syllable. That is, when the head is short the \( G \) can stretch back to the end of the modifier, but when the head is longer than two syllables, \( G \) cannot stretch back across the boundary so ends up on the head’s initial syllable.

3. Classifiers place a low tone (\( C \)) on the noun’s final syllable when the classifier is mono- or bisyllabic (with one exception), but when the classifier has three or more syllables, \( C \) docks on the classifier’s first syllable. That is, when the classifier (which we claim to be the head) is short, \( C \) can stretch back to the end of the modifier, but when the classifier is longer than two syllables, \( C \) cannot stretch that far and ends up on the classifier’s initial syllable.

The last two cases—the genitive construction and the addition of classifiers—are both cases of the joining of two units into a single one, both joining a modifier and head into a single syntactic and phonological unit. The low tone at the boundary (that docks one way or the other) marks the boundary between the modifier and the head.
CHAPTER 3. TONE

3.14 Areas for further study

Many issues beg for further study:

1. Some nouns have a lexically marked high tone on their initial syllable; see section 3.11.3 for examples. We understand little about the tonal behavior of such words nor, for that matter, about lexically marked high tones generally.

2. Some words (roots) simply demonstrate exceptional tonal behavior (exceptional, that is, relative to our analysis). Consider the genitive constructions in table 3.4 (in which POSS’R stands for ‘possessor (modifier)’ and POSS’D stands for ‘possessed (head)’) and the discussion that follows.

<table>
<thead>
<tr>
<th>POSS’R</th>
<th>POSS’D</th>
<th>POSS’R</th>
<th>POSS’D</th>
</tr>
</thead>
<tbody>
<tr>
<td>my</td>
<td>X</td>
<td>his/her</td>
<td>X</td>
</tr>
<tr>
<td>H</td>
<td>HL</td>
<td>HL</td>
<td>HL</td>
</tr>
</tbody>
</table>

Consider the first two rows (‘mother’ and ‘wife’). In the second column the genitive low tone docks on the possessor’s final syllable as expected. In the first column, however, there is no evidence of the genitive low tone; the possessor bears high rather than low tone; compare example 573, page 253.

Consider the last three rows (‘father-in-law’, ‘father’, and ‘husband’). In both columns the possessor’s final syllable bears high tone rather than the expected genitive low tone; compare example 574, page 253. Further, although there is abundant evidence that ‘father’ bears a lexically marked high tone on its first syllable (kʰaːni), in the second column it bears a low tone on its initial syllable.

32 Many words with exceptional tonal behavior are common terms for humans and their relationships, e.g., kpà’pʰi ‘man’, tʃiːʔjò ‘male child/parent’, kpàʧɛ̀ ‘woman’, kpàʔáɾò ‘female child/parent’. The high frequency of such words allows them to remain exceptional, since frequent use reinforces words, making them resistant to normalization.
3. In appendix D we list most of the suffixes, including an explicit representation of their tonal properties. These are working hypotheses: there are suffixes for which we do not fully understand their tonal properties. For example, when -ʈɯ 'like' follows a monosyllabic classifier, it does not ordinarily delink the low tone imposed by that classifier on the preceding syllable; see 121a. However, if the preceding (monosyllabic) classifier’s ¹ is not docked (blocked by a preceding ¹), quite unexpectedly the ¹ of -ʈɯ does not dock; see 121b:

(121) a. ūmɛʔɛ̀-kpá-tɯ̀ (úméhewádu) ‘like a slab-like thing’.
   tree-⟨slab⟩-like

   b. kpáʰkʰó-ʔɛ́-tɯ̀ (wajcóhédu) ‘like a flowering tree’
   flower-⟨tree⟩-like

   It is as though the classifier’s ¹ is both present (to block the ¹ of -ʈɯ) and absent.

4. Several rules (FDLT, PLTS and FLTS) are conditioned to apply only “phrase finally” but we have not adequately defined what this means. Different rules will require different broader or narrower notions of “final”; e.g., FDLT applies more generally (perhaps word finally) than PLTS and FLTS.

   Perhaps more seriously, we have made only feeble attempts to relate “tonal phrase” to syntactic structure; one would expect a tight relationship.

5. PLTS and the *LLX constraint both work to avoid three moras of low tone, but our analysis does not capture this commonality.

6. We note the following similarity:

   (a) The low tone that makes a verb stem nonfinite (section 4.1) or imperative (section 14.1.1) docks on the earliest of the last three syllables, counting from its end: …ₙσ(σ(σ))#.

   (b) The low “boundary” tones of the genitive construction (section 9.1) and of classifiers (section 6.1.4) reaches the final syllable of the modifier only if it is among the last three syllables, counting from the end of the head: [modifier…ₙσ][noun stemσ(σ)]#

   Nothing about our analysis captures the commonality of these three cases of “a low tone regressive to the antepenult.”
7. Bora’s tone system seems too complex. A reader commented, “You can’t be right. It is too complicated. How would children learn it?” We agree that our description—and the analysis implicit in it—are too complicated. Of course, the complexity of the facts themselves cannot be reduced. (Indeed, further study will undoubtedly bring to light more complexities.) The challenge, therefore, is to find analyses that reduce the complexity.

8. Bora—it seems—has no stress system aside from the system of tone: there do not seem to be stressed versus unstressed syllables, only high tone versus low tone syllables. In basic design, the Bora tone system is not unlike the accentual system of Lithuanian described by Kenstowicz (1994:584ff.). We do not discount the possibility that Bora’s tone system is a stress system implemented on tone. Kenstowicz (1994) says that Milner proposes such an analysis for Winnebago; Kenstowicz writes (p. 595) “The accent is interpreted as high tone” and (p. 596) “The accent in Winnebago is apparently realized tonally (Milner 1979)”. (Consult Kenstowicz (1994) for references.)

9. Bora drum communication raises various intriguing questions: Given that there is relatively little lexical tone, why is it possible at all? What is the range of messages that can be communicated? To what extent does it depend on conventional frames?

10. Across Bora clans there are small dialect differences, most prominently, with regard to palatalization. There are differences in tone. This merits further study.

A language spoken to the north in Colombia, Muinane, is closely related to Bora. According to Mike Maxwell (personal communication) it has a pitch-accent system: very roughly, words begin with some number of high tone syllables and are thereafter followed by low tone syllables. Perhaps this is the result of the collapse of a system like that of Bora. Tone has not been sufficiently studied in other members of the Witotoan family such as Witoto and Ocaina. Aschmann (1993) has done an admirable job of reconstructing the segmental phonology of Witotoan. However, reconstructing the system of tone is an outstanding challenge.
Chapter 4

Word Formation

A Bora word is composed of a root and zero or more affixes, either suffixes, prefixes, or both. (There are more suffixes than prefixes.) As affixes are (cyclically) added, they affect the root or stem to which they are attached, particularly its tones.

There are various classes of words; these are treated in three main groups. Those that are verbal are dealt with in section 5.6. Those belonging to various minor categories are dealt with in chapter 12. Those that are nominal are dealt with in chapters 7 (nouns) and 8 (pronouns).

Inflection is discussed in other sections of this grammar (for example, section 5.2 for verbs and 7.3 for nouns). The most common notions expressed by inflection in Bora are:

**NUMBER:** singular, dual, plural. For example, kpåʧɛː-mɯ̀ ‘women’ from kpåʧɛ ‘woman’ and -mɯ ‘plural’.

**GENDER:** masculine, feminine. For example, māʷʧʰʊ-ʧɛ̀ ‘She ate.’ from māʷʧʰʊ ‘eat’ and -ʧɛ (SgF).

**ANIMACY:** animate, inanimate. For example, māʷʧʰʊ-mɛ̀ ‘They (AnPl) ate.’

Inflectional affixes may also indicate adverbial notions, as in 122:

1. ík^{h}:kʰá-ʧɛ̀ (ícyoocår) ‘right now’
2. tʰá-húkʰʊ-ːpɛ̀ (Tájúcoóbe.) ‘He cries now.’

This chapter deals with derivation. We discuss four types: derivation by tone modification (4.1), compounding (4.2), affixal derivation (4.3), and the incorporation of instruments into verbs (4.4).
CHAPTER 4.  WORD FORMATION

4.1  Derivation with tone: nonfinite verbs

For every verb there is (at least potentially) a nonfinite form; this may refer to objects, actions, events or states. The nonfinite form of a verb is derived by placing a low tone on a particular syllable. To make this low tone more evident we will sometimes represent it with a N over the vowel (where N stands for ‘nonfinite’). For example, compare the finite verb of 123a with the nonfinite form in 123b:

(123) a. ó ftsʰámɛ́-ʔì (Ó íjtsámeíhi.) ‘I think.’ (finite)
    b. ftsʰNámɛ́ (íjtsaméi) ‘thought, thinking’ (nonfinite)

The rule for deriving nonfinite verbs imposes a low tone according to the following rule: If the verb is mono- or bisyllabic, the low tone is placed on the initial syllable; if the verb is any longer, the low tone is placed on the antepenult. In a nutshell, it is “a low tone regressive to the antepenult.” This rule can be formalized as follows:

\[
\begin{align*}
\text{finite verb} & \vdash \sigma (\sigma (\sigma)) \\
\text{nonfinite verb} & \vdash \overset{\text{L}}{\sigma} (\sigma (\sigma))
\end{align*}
\]

Figure 4.1 Nonfinite tone

Nonfinite forms behave like nouns: they may take nominal affixes; they may head noun phrases; they may possess or be possessed (in the genitive construction); and so forth. They are pluralized with -ʔánè ‘various’ rather than with one of the other nominal pluralizers. For example, the nonfinite form of maⁿʧʰo ‘to eat’ may refer to food or to eating, as in maⁿ]\^{\text{L}}\text{ʧʰóʔáɲɛ́} ‘various types of food’.

Additional examples follow.

(124) a. úkpáːpò-ːpɛ̀ (Úwááboóbe.) ‘He teaches.’
    teach-⟨SgM⟩
\[\text{finite verb}\]

b. úkpáːpò-ːpɛ̀ (uwááboóbe) ‘the teacher’
    teaching-⟨SgM⟩
\[\text{nonfinite verb}\]

1 This is a lexical rule and the nonfinite tone is lexically marked. Tentatively, the V and N subscripted to the left braces represent \(+\text{verbal, }+\text{finite, }−\text{nominal}\) and \(−\text{verbal, }−\text{finite, }+\text{nominal}\), respectively.

2 This is written majchóháñe but is arguably a genitive construction: maⁿ]\^{\text{C}}\text{ʧʰóʔáɲɛ́}. Its head, ᵇánè, ‘various’ refers to collections and thus “pluralizes.”
4.1. DERIVATION WITH TONE: NONFINITE VERBS

(125) a. \(k^h \text{úkpà:-pè} \) (Cúwaábe.) ‘He is sleeping.’ (finite)

\[ \text{b. } k^h \text{úkpá:-pè } (\text{cuwáábe}) \text{ ‘one belonging to a sleep-⟨SgM⟩ clan}^3 \text{ (nonfinite)} \]

(126) a. \(t^h \text{ápó:-pè} \) (Tááboóbe.) ‘He is treating.’

\[ \text{b. } t^h \text{ápó:-pè } (\text{taabóóbe}) \text{ ‘the doctor’ cure-⟨SgM⟩} \]

Compare 127a, in which \(k^h \text{ímó:βè} \) (citation form) is a verb with 127b, where it is nonfinite:

(127) a. Mítyane áátye kímoové hi.

\[ \text{b. } \text{Ijcyáné kimóvé téhulle.} \]

\[ \text{a. } \text{mít}^h \text{á-nè át}^h \text{è kímò-βè-ʔì ‘Those (people) became much-⟨ø⟩ those be.sad-sIn-⟨t⟩ very sad.’} \]

\[ \text{b. } \text{i}^r \text{k}^h \text{á-né } \text{A kímò-βè}^4 \text{ t}^h \text{-ʔùrtè ‘There is be-⟨ø⟩ sadness-sIn that-⟨yonder⟩ sadness there.’} \]

The nonfinite low tone delinks any lexically marked tones with which it conflicts. Compare \(\text{ákpák}^h \text{únù} \) ‘to yawn’, the verbal form in 128, with \(\text{ákpák}^h \text{únù} ‘a yawn’, the nonfinite form in 129. In particular, note that in 129 the nonfinite tone has delinked the verb’s lexically marked low tones.

(128) Áánu awácunúhi.

\[ \text{á:núú álpa}^k \text{húnú-ʔì ‘This (one) is yawning.’} \]

\[ \text{this yawning-⟨t⟩} \]

(129) Keeme fhyá tsájucóó áwacúnúma.

\[ \text{kʰè:mè í}^l \text{à tʰá-hükʰó:-ʔì álpa}^k \text{húnú-mà old.man perhaps come-now-⟨t⟩ yawn-with ‘Perhaps the old man now comes only to yawn.’ (lit. ‘…with yawns (in the circumstance of yawning).’)} \]

The tonal difference between a finite and nonfinite verb may not be apparent in mono- and bisyllabic words; e.g., \(\text{mà}^x f^h \text{ó} \) is both ‘eat’ (finite) and ‘eating, food’ (nonfinite). The difference is usually apparent in trisyllabic words, e.g., \(\text{ák}^h \text{ùr:βè ‘to sit down’ (finite) versus ák}^h \text{ùr:βè ‘seat’ (nonfinite).} \)

\[ \text{See also example 132 below. However the difference is not apparent} \]

\[ ^3 \text{We do not know how one gets from ‘sleeper’ to ‘one belonging to a clan’ but presumably it is a consequence of clans occupying a single large house (maloca) in which all sleep.} \]

\[ ^4 \text{This is appositive to the -nè subject cliticized to the verb. The sentence’s structure is: Verb-⟨subject⟩ A Subject Locative.} \]

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in some trisyllabic verbs that bear lexically marked low tones. For example, tʰʰúũβà is both ‘to talk’ (finite, with lexically marked low tone on the initial syllable) and ‘speaking, speech’ (nonfinite).

The verbs of subordinate clauses (complements, relative clauses and adverbial clauses) bear a high tone on the first syllable; see section 3.12.1. Examples 130 and 131 contrast two constructions, the first with a possessed nonfinite form (where the nonfinite low tone is represented with N), the second with a subordinate verb (where the subordinate high tone is represented with S):

(130) Eene muurá táímbájcho.
èː-nè mɯːɾá tʰá ñ mípá[tʰó]ñ that-(∅) confirm my fixed.one ‘That is the one I fixed.’ (lit. ‘That is my fixed one.’)

(131) Eene muurá ó ímíbajchóne.
èː-nè mɯːɾá [ó s mípá[tʰó] ]-nè that-(∅) confirm I fix -(∅)
‘That is the one that I fixed.’

Compare also the examples of 126 with those of 80, page 68.

Example 132 illustrates the contrast between a relative clause (132a), with a high tone on the verb’s first syllable, and a nonfinite verb (132b), with the nonfinite low tone on the stem’s antepenult, represented by N. (See also examples 944, page 358, and 1000, page 382.)

(132) a. Túrúúvehe ííteébe.
b. Turúúvehe ííteébe.
\[
\begin{align*}
&\text{a. } [tʰʰúũ-rú-]-ʔè \quad \text{fall-SIn } \langle\text{tree}\rangle \\
&\text{b. } [tʰⁿúũ-rú-]-ʔè \\
&\quad \text{look-⟨SgM⟩}
\end{align*}
\]
\[
\begin{align*}
a. & \text{‘He looks at the tree that is falling.’} \\
b. & \text{‘He looks at the fallen tree.’}
\end{align*}
\]

The verbs of relative clauses and nonfinite verbs also differ in the person-marking classifiers that follow, as can be seen by comparing 133a and 133b:

(133) a. ð kpha₇⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻˓→N
I love-⟨AnPl⟩-voc (relative clause)

b. tʰá kpha₇⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻⁻˓→N
my beloved-⟨AnPl⟩-voc (nonfinite)
4.2 Compounding

4.2.1 Compound nouns

Compound nouns may be headed by a classifier (4.2.1.1) or by a noun (4.2.1.2). A nonfinite verb with an incorporated object may also form a compound noun (4.2.1.3).

4.2.1.1 Headed by classifiers

The concrete noun in 134c is derived by compounding the nonfinite verb in 134a with the classifier in 134b:

(134) a. kp:\textsuperscript{N}h:\textsuperscript{h}ak\textsuperscript{h}u (waaj\textsuperscript{a}cu) ‘knowledge, know’
   b. -\textsuperscript{ʔ}ami (-h\textsuperscript{a}m\textsuperscript{ɨ}i) ‘⟨leaf⟩ (paper, book,…)’
   c. kp:\textsuperscript{N}h:\textsuperscript{h}ak\textsuperscript{h}uʔ\textsuperscript{ʔ}ami (waaj\textsuperscript{a}cuh\textsuperscript{a}m\textsuperscript{ɨ}i) ‘book’

In example 135 the second (and final) classifier is—arguably—compounded with the preceding noun phrase.

(135) t\textsuperscript{h}á (t\textsuperscript{h}ájts\textsuperscript{w}á\textsuperscript{m}í\textsuperscript{h}o) ‘my fingernail’
   my hand-⟨slab⟩-⟨sheath⟩

Regarding 135 as a compound noun is consistent with the position that classifiers are a type of bound noun.

4.2.1.2 Headed by nouns

The noun m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (people, fellow countryman),\textsuperscript{7} may be compounded with a nonfinite verb, as illustrated in 136 with kp\textsuperscript{h}ák\textsuperscript{h}im\textsuperscript{ɛ} ‘work, labor’:

(136) kp\textsuperscript{h}ák\textsuperscript{h}im\textsuperscript{ɛ}í m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (wákimy\textsuperscript{e}í-m\textsuperscript{u}n\textsuperscript{a}aj\textsuperscript{p}i) ‘worker’
   working human-⟨SgM⟩

\textsuperscript{5}In head-final (OV) languages, the second of composed elements normally heads the resulting word or phrase so its features prevail in the composition. In 134c that element is the classifier -ʔami. Because it refers to concrete objects (as suggested by the gloss) it bears the feature [−abstract]. This feature percolates to the composed word kp\textsuperscript{h}ák\textsuperscript{h}uʔ\textsuperscript{ʔ}ami (134c) so refers to something concrete and, due to ‘knowledge’, is understood as a book. See section 6.3.4 for further discussion.

\textsuperscript{6}The \textsuperscript{1} of -\textsuperscript{1}m\textsuperscript{ɛ}íʔo is blocked by the \textsuperscript{1} of -\textsuperscript{1}kp\textsuperscript{a}.

\textsuperscript{7}(Thiesen \& Thiesen 1998:191) gives m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} as a concrete noun occurring either without a classifier or as one of the following: m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (masculine singular), m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (feminine singular), m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (masculine dual), m\textsuperscript{u}n\textsuperscript{a}n\textsuperscript{a} (feminine dual).
The tone derivation of 136 is as follows:

```
  wakimyei    work   munaa   human :
   L      : nonfinite   : |
   :      : |_jpi    <SgM>
   :      : L   FDLT   H
   :      : H   DHT   H   DHT
   :      : :      : :
   wákimyéi  múnáa-jpi 'worker <SgM>'
```

Figure 4.2 TD: wákímyéi múnáajpi

In 137 ‘judge’ is the phrase ímíᵗʰúⁿéˀhí ímípáᵗʰèⁿô-múná:”pʰí, literally ‘bad fixer person’:

(137) Ávyéjuube càyobáávatétsó iwákímyéi-múnáake dìityéké ímí-tyúnéhjí ímíbájcho múnáájpi úmiwávú tsane idíllóneri.

Áβʲɛ́hɯ̀-ːpɛ̀ kʰájòpá-ːβà-tʰɛ́-ʦʰó-ʔì
reign-⟨SgM⟩ anger-become-go.do-caus-⟨t⟩

[[í ː [kpákʰNimléi múnáà ] ]-kʰè tiː-ᵗʰɛ́-kʰɛ́
self worker human -objAn that-⟨AnPl⟩-objAn

[[[ímí-tʰúⁿéˀhí ímípáᵗʰèⁿô] múná:”pʰí ]
good-neg-⟨ø⟩-pl fix human-⟨SgM⟩

úmì-kpá ] -βú tˢʰà-nè i títʃó-nè-ɾì
face-⟨slab⟩ -goal one-⟨ø⟩ self ask-⟨ø⟩-oblIn

‘The chief angered his workers by asking them about something in the presence of the judge.’

(Thiesen & Thiesen 1998) gives a few dozen cases of compounds headed by múnàà, joining it and the preceding nonfinite verb with a hyphen.⁸

Two issues deserve further investigation. First, these compounds with múnàà are written with a hyphen based on the preferences of Bora literates. This may reflect an intuition that múnàà is neither an independent noun nor a classifier (that it has moved toward becoming a classifier but not yet arrived, so to speak). This may be because, although múnàà is


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behaving much like a classifier, there is not consistent evidence for the classifier low tone (©).

Second, it may be that múñàà is the only noun that heads this sort of compound.

4.2.1.3 Object incorporation

In 138 and 139, the first of each pair is a sentence with a finite verb, while the second is a nonfinite verb with an incorporated object.9

(138) a. ɨɨcu tûkêvêtsoóbe.
   iːkʰu tʰúkʰɛβɛśtsxʰːpè ‘He directs the game.’
   game direct-⟨SgM⟩

b. ɨɨcú-tûkêvêtsoóbe
   iːkʰu tʰúkʰɛβɛśtsxʰːpè ‘referee’
   game directing-⟨SgM⟩

(139) a. Obééjâmuke téhmeébe.
  lopɛʰá-mû-kʰêtreːpè ‘He cares for the sheep.’
  sheep-plAn-objAn care-⟨SgM⟩

b. obééjâmú-tehméébe
  lopɛʰá-mû tʰɛ’mᵉːpè ‘shepherd’
  sheep-plAn care-⟨SgM⟩

Examples 140 and 141 are like 138b and 139b.

(140) pihcyâávé-tûkêvêtsoóbe
  pʰiːkʰá-ːβɛtʰúkʰɛβɛśtsxʰːpè ‘leader of the meeting’
  meet-sIn direct-⟨SgM⟩

(141) mííné-tûkêvêtsoóbe
  mí⁻ːnɛ tʰúkʰɛβɛśtsxʰːpè ‘pilot (of a boat)’
  boat direct-⟨SgM⟩

An alternative to 139b is 142 (which is formed as outlined in section 4.2.1.2). It would be said of someone who is professionally dedicated to caring for sheep, whereas 139b would be said about someone who is temporarily caring for sheep.

9By virtue of being incorporated, the object no longer undergoes FDLT; it could not bear two low tones without violating the *LLX constraint.

Because ‘direct’ in example 138b has an initial high tone, it could also be analyzed as a relative clause: [ø, iːkʰu tʰúkʰɛβɛśtsxʰːpè]. However, such an analysis is not possible for 139b because ‘care’ has a low tone on its initial syllable.
(142) obééjámú tehmé múnáajpi  
òpɛ́ːhá-mú₉₉ tʰɛ́mɛ́ múınáà-xpʰí 'shepherd'  
sheep-plAn care human-(SgM)

Example 143 is similar to 142:

(143) tsiímé tehmé múnáajpi  
tɕʰiímɛ́ tʰɛ́mɛ́ múınáà-xpʰí  
children care human-(SgM)  
‘one who takes care of children’

4.2.2 Compound verbs

Compound verbs are made up of two or more verbs. The first must be an active (not stative) verb. Except for any lexically marked low tones it might have, it will bear high tones.10

The second of compounded verbs may be either a free verb or an affix. The free verbs occur as independent verbs as well as in compounds; they are discussed in this section. The affixal verbs occur only in compounds; they are discussed in section 4.3.6.

The second of compounded verbs may be one of the following “free” verbs, which also occur as verbs outside of compounds:11

(-)tʰɯ́ˣkʰɛ́nɯ́ ‘begin’. For example, tʰɯ́ˣkʰɛ́nɯ́ ‘begin’ is the second of two compounded verbs in 144, while it is an independent verb in 145:

(144) Áánéllii ihjyúvátujkénuúbe.  
áː-nɛ́-ʧìː ñʰúβá-tʰɯ́ˣkʰɛ́nɯ́-ːpɛ̀  
that-(ø)-motive speak-begin-(SgM)  
‘For that reason, he began to speak.’

(145) Áánéllii tujkénuube iíhjyuváne.  
áː-nɛ́-ʧìː tʰɯ́ˣkʰɛ́nɯ́-ːpɛ̀ [í ]ñʰúβá ]-nɛ̀  
that-(event)-motive begin-(SgM) self speak - (event)  
‘For that reason, he began to speak.’

10 This is simply by default: (1) none of the conditions for phrase final lowering could possibly apply, and (2) the second of compounded verbs does not impose any tones on the first.

11 These end with what appears to have been—or might be—a suffix, either the verbalizer -nu ‘cause to have, cause to be’, that is tʰɯ́ˣkʰɛ́-nû (straight-do), or the verbalizer -βɛ́ ‘become’, that is, ñʰɛ́-βɛ̀ (bothersome-become), pʰɛ̀ˣkʰó-βɛ̀ (night-become) (x)kʰóhį́-βɛ̀ (day-become).

pʰiβɛ́ ‘desire’ might be cognate with pʰiβɛ̀ ‘grow’, and ultimately with the suffix -(ø) pʰi ‘excessive’ discussed in section 4.3.6.1.
4.2. COMPOUNDING

(-)îːhʲɛ́βɛ̀ ‘be bothersome (by doing)’

(146) Meke tááííjyévelle.
  mɛ̀-kʰɛ̀ tʰáː-íːhʲɛ́βɛ̀-ʧɛ̀ ‘She bothers us (by) crying.’
  SAP-objAn cry-bother-⟨SgF⟩

(-)pʰɪβɛ̀ ~ (-)pʰɪβɛ̀nù (pivyè ~ pivyénu) ‘desire’:

(147) Ó ádópivyéhi.
  ó átó-pʰɪβɛ̀-ʔì ‘I am thirsty.’
  I drink-desire-⟨t⟩

(148) Muha mémaχópivyenûhi.
  mɯ̀ʔà mɛ́ máᵗʰʰό-pʰɪβɛ̀-nû-ʔì ‘We became hungry.’
  we SAP eat-desire-do-⟨t⟩

(-)pʰɛ̀ˣkʰóβɛ̀ ‘be tardy (by night), spend the night’

(149) Muha méiχýúvapéjcévehi.
  mɯ̀ʔà mɛ́ iʰhúβá-pʰɛ́ˣkʰó-βɛ̀-ʔì ‘We talked all night.’
  we SAP talk-night-sIn-⟨t⟩

(-)⁽ˣ⁾kʰòːhɨ́βɛ̀ ‘be tardy (by day), spend the day’

(150) a. Keeme cúwájcojívéhi.
  b. Cóójí hajchoxá keeme cuwaáhi.
  a. kʰɛ̀ːmɛ̀ kʰúkpá-ˣkʰóːhɨ̀-βɛ́-ʔì
      old.one sleep-day-sIn-⟨t⟩
  b. kʰóːhíʔàˣʧʰó-tʰá kʰɛ̀ːmɛ̀ kʰúkpá-ʔì
      day duration-⟨part⟩ old.one sleep-⟨t⟩
  a. ‘The old (man) sleeps all day.’
  b. ‘The old (man) sleeps the length of a day.’

Although not common, three elements may be compounded:

(151) Oke tááííjyévépéjcévéébe.
  Ø-kʰɛ̀ tʰáː-íːhʲɛ́-βɛ̀-pʰɛ́ˣkʰó-βɛ̀-pè
  I-objAn cry-bother-sIn-night-sIn-⟨SgM⟩
  ‘He bothers me crying all night long.’

In addition to the free verbs just listed, iʰkʰa ‘be’ may follow another verb to indicate ‘habitual’. We regard this as a compound tense in which the preceding verb is marked with ? as though it were a predicate complement. See section 5.10.

¹¹In example 148 -nu, which is glossed as ‘do’, is understood as ‘inchoative’.
4.3 Affixal derivation

Derivational affixes may change the category of the root (or word) to which they are attached. Examples, in which the derivational affix is underlined, are given in 152–155.12

(152) kʰáɾkʰá-mɯ̀-βà (cáracámuvá) ‘have chickens’
    chicken-plAn-have

(153) mɨ́mamúnnà-ːβɛ̀ (mɨ́mamúnàááve) ‘become people’
    people-sln

(154) tʰà:pa-ːnù (tàbánu) ‘give a woman in marriage’
    wife-do

(155) tsɨ́kʰɔ-hâ (dsɨ́jcoja) ‘sewn clothing’
    sew-(shelter)

4.3.1 Verbs derived from verbs

Many verb roots are followed by a “singular versus multiple action” suffix. For each verb there are potentially six forms, corresponding to the parameters transitive/intransitive/stative and singular/multiple.16 The meaning of the singular versus multiple distinction depends on the particular verb: sometimes it is individual versus collective action, sometimes it is a single

---

12 Note that in example 152 the derivational suffix -βà is farther removed from the root than the inflectional suffix -mɯ.

13 The tones in isolation are: mɨ́mamúnnà ‘people’.

14 The tones in isolation are: tʰà:pa/ ‘wife’.

15 The tones in isolation are tsɨ́kʰɔ ‘sew’ We will suggest below that cases like 155 can be analyzed as relative clauses modifying a classifier head.

16 That is, each verb could have up to 6 derived forms corresponding to the cells of the following table. Rather than verbs, this table gives the abbreviations used to gloss the suffixes that indicate these contrasts:

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>MULTIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>transitive</td>
<td>sTr</td>
<td>mTr</td>
</tr>
<tr>
<td>intransitive</td>
<td>sIn</td>
<td>mIn</td>
</tr>
<tr>
<td>static</td>
<td>sSt</td>
<td>mSt</td>
</tr>
</tbody>
</table>
action versus iteration, and so forth. This is discussed in section 5.7.2.

The suffix -tʰɯ(ɯ) ‘negative’ may occur between the root and the singular versus multiple suffix, as in 156:

\[(156) kʰɛ́ʔʲɛ́-tʰɯ́ɯ́-βɛ̀ (kéhyétuúúve) \text{‘become listless’}\]

\[\text{have.strength-neg-sln}\]

\[úβáʔ-tʰɯ́-βɛ̀ (úváhtuúúve) \text{‘be dumbfounded’}\]

alert(?)-neg-sln

In this position, -tʰɯ(ɯ) ‘negative’ is frequently preceded by -ɾa ‘frustrative, contraexpectation’, as in 157, but -ɾa does not occur in this position without -tʰɯ(ɯ).

\[(157)ʧɛ́pò-ɾá-tʰɯ́ɯ́-βɛ̀ (léborátuúúve) \text{‘become deaf’}\]

hear-frs-neg-sln

\[kpáhákʰú-ɾá-tʰɯ́ɯ́-βɛ̀ (wájácúrátuúúve) \text{‘bewildered, stunned’}\]

know-frs-neg-sln

4.3.2 Verbs derived from nouns

Verbs are derived from nouns by one of the following suffixes: -ʧɛ ‘treat like, regard as’, -nɯ ‘do’, -βɛ ‘become’, -tʰɛ ‘become’, -βa ‘have’ or -ˣkʰimɛi ‘behave like’. These will be discussed in turn.

4.3.2.1 -lle ‘treat like, regard as’

The suffix -nɯ (-lle) ‘treat like, regard as’ and -nɯ ‘cause to have, do’ derive transitive verbs. With -ʧɛ (-lle) ‘regard as’, the referent of the direct object is compared to the referent of the host (i.e., the noun to which -ʧɛ is suffixed). For example, in 158 he (subject) regards me (object) as a child (host):

\[(158) Oke tsiiménélleébe.\]

\[\text{ō-kʰɛ̀ tsʰiménɛ́-ʧɛ̀-pɛ̀} \text{‘He considers me to be}\]

I-obj An child-regard-(SgM) like a child.’

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\[\text{©2012 SIL International}\]
4.3.2.2 -nu ‘do’

The suffix -nu (\(\text{-}\nu\)) derives a verb that means ‘to cause to have \(\Phi\)’ (where \(\Phi\) is the host’s referent), as illustrated in 159 with tsi:tsi ‘money’:

(159) Oke dsį́dsį́nuúbe.
\(\overset{\circ}{\overset{\circ}{\circ}}\)kʰɛ̀ tsi:tsi:-nɯː-pɛ̀ ‘He caused me to have money.’
I-obj An money-do-⟨SgM⟩

A verb so derived can also mean ‘do something related to \(\Phi\)’, as illustrated with kʰù:mù ‘drum’ in 160:

(160) kʰù:mù-nɯː-pɛ̀ (Cuumúnuúbe.) ‘He played the drums.’
drum-do-⟨SgM⟩

(161) àˣpʰá (ajpa) ‘a type of edible grub’
àˣpʰá-jnù (ajpá:nù)19 ‘make holes in palm trees for grubs’

(162) àhɨ́ (aj) ‘a type of small palm’
àhɨ́-nù (aj:nu) ‘gather the leaves of this type of palm’

The verbalizer -nu may be added after either a singular or a plural noun. For example, pʰákʲʰɛ́ ‘trap’ is a collective noun referring to fish traps, not to a single one. When -nu follows a plural or collective noun, the resulting verb is a multiple action verb (as discussed in section 5.7.2). Thus, pʰàkʲʰɛ́ːnù ‘set traps’ is a multiple action verb.

To refer to a single trap, the classifier -hù ‘long and hollow’ must be added: pʰǽkʲʰɛ́ː-hù ‘a single trap’. The result is a single action verb: pʰǽkʲʰɛ́ː-hú:nù ‘set a single trap’.

Although -nu generally derives transitive verbs, in a few cases they are intransitive, as in 163:

(163) àːʔí-nù (home-do aahí-νu) ‘to stay at home (intransitive)’
àːʔí-βɛ̀ (home-slн aahíve) ‘to go home (intransitive)’

The suffix -nu may be added to an adjective, in which case it means ‘cause to be’ rather than ‘cause to have’:

(164) tʃʰó’hú:nù (chohjyũnu) ‘to make smaller’
small-do
àjá-nù (ayánu) ‘to make smaller or fewer’
small/few-do

19Presumably the /a/ that precedes /n/ in àˣpʰá-jnù is a reflex of */ai/ since it palatalizes the nasal that follows; see Aschmann (1993).
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4.3.2.3 -ːve ‘sIn’ and -te ‘become’

The suffixes -ːβɛ (ːve) ‘sIn’ and -tʰɛ (-te) derive verbs that mean ‘to become like Φ’ (where Φ is the host’s referent). This is illustrated with tsʰiːmɛnɛ ‘child’ in 165 and áβɛ̱ɛhù ‘reign’ in 166:

(165) ó tsʰiːmɛnɛ-ːβɛ́ (Ó tsíméneevé.) ‘I became like a child.’
I child-sIn

(166) Áátyáába ávyéjuuté ávyéjúubé úníuri iwákímeiñeri.20
á: G tʰáːpà áβɛ̱ɛhùː-ːβɛ́-ʔì [áβɛ̱ɛhùː-ːpɛ́ G ünìù ]-rì
my wife reign-become-(t) reign-(SgM) beside -oblIn

ì kpä:kʰímɛ́-ʃi ]-nd-ːrì
self work -(ð)-oblIn
‘My wife became important working alongside of the chief.’

The suffix -ːβɛ ‘sIn’ may follow the combination of the bound root pʰa- ‘all’ and a classifier to derive a verb that indicates becoming a complete object of the type indicated by the classifier. For example in 167 it derives a verb meaning ‘to become a complete vehicle (canoe, car, airplane,...)’:

(167) Tsúúca temi pámìfvehi.
-tsʰúːkʰà tʰɛ̱-mì pʰá-miː-ːβɛ́-ʔì
already that-(canoe) all-(canoe)-sIn-(t)
‘That has already become a complete canoe (car, airplane, ...).’

Other examples follow:

(168) Tsúúca táwajyámú pájaavéhi.
-tsʰúːkʰà tʰá kpä:kʰámú pʰá-hàː-ːβɛ́-ʔì
already my dress all-(shelter)-sIn-(t)
‘My dress has already been completed.’

(169) Páábééveébe,
pʰá-ːpɛ́-ːβɛ̀-ːpɛ́ ‘He has become a mature male.’
all-(SgM)-sIn-(SgM)

4.3.2.4 -va ‘have’

The suffix -Lβa (-va) ‘have’ derives a stative verb that means ‘to have Φ’, where Φ is the referent of the host. This is illustrated in 170, in which

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(170) ó mɛnìmù-βáʔi (Ó meenímuvá.) ‘I have pigs.’

I pig-have-

The suffix -βa ‘have’ behaves like -nu. For example, with pʰàːʧá ‘manioc’, the result, pʰàːʧá-βà ‘having manioc’ is a multiple action verb. However, when the noun is first made singular by the addition of -ʔò (sphere), the result, pʰáʧà-ʔóː-βà ‘to have a single ball of grated manioc’, is a single action verb.

Examples 171 and 172 show the contrast between -βa ‘have’ and -nu ‘do’:

(171) mɛmɛ-βà (memé-va) ‘to be named’
name-have
mɛmɛ-nu (memé-nu) ‘to name’
name-do

(172) ëⁿé-βà (ehnéva) ‘to have things (intransitive)’
that-(ø)-have
ëⁿé-nu (ehnénu) ‘to cause to have things (transitive)’
that-(ø)-do

The verbal stems derived by -βa ‘have’ may be negated, as in 173:

(173) íhjúvá-βá-tʰɪɯ́-ːβɛ̀ (íhjyúvátuúúve) ‘become speechless’
mouth-have-neg-sIn
pákʰú-βá-tʰɪɯ́-ːβɛ̀ (bájcúvátuúúve) ‘become spineless (weak)’
bone-have-neg-sIn
ʔáʧú-βá-rá-tʰɪɯ́-ːβɛ̀ (hállúvárátuúúve) ‘become blind’
eye-have-frs-neg-sIn

4.3.2.5 -jkimei ‘behave like’

The suffix -kʰimei (-jkimei) ‘behave like’ derives a verb that means ‘to behave like Φ’, where Φ is the host’s referent. This is illustrated in 174 with tsʰímɛ̀ ‘child’:

(174) ó tsíménéjkíméí.
ó tsʰímɛ̀-kʰímɛ̀-
I child-behave.like-(t)

21The tone of 170 seems inconsistent with the claim that -βa ‘have’ imposes a low tone on the host’s penultimate syllable.
4.3.3 Nouns derived from verbs with -ta ‘corresponding to’

-\(t^h\)a (-ta) ‘corresponding to (corr)’ derives nouns from verbs, as in the following:

(175) nǐjcyotáábe
\(n^f^{kh^h}\)\(-t^h\)á-ːpɛ̀ ‘statue (lit. the one who is moulded)’
mould-corr-{SgM}

(176) díájcuta
tí \(\, \, \, ^{\circ}\, \, \, á^x^{kh^h}\)û-t^hà ‘the part given to you’
your give-corr

(177) díwáábyuta\(^{22}\)
tí \(\, \, \, ^{\circ}\, \, \, kpá:p^h^h^h\)û-t^hà
your blame-corr
‘your share (lit. corresponding to your responsibility/fault)’

4.3.4 Participles

Participles are derived from verbs by the addition of one of the following affixes: -\(^{2}\)nek\(^{h}\)u ‘result’, -riβak\(^{h}\)o ‘resulting position’, -\(r^h\)at\(^h\)u ‘not doing’, or the prefix \(t^h\)- ‘that’. Participles indicate the state of an object resulting from a prior event, namely the event indicated by the verb from which the participle is derived. Participles are most frequently used in apposition to a noun phrase but may also be used adverbially; see example 182.

The suffix -\(^{2}\)nek\(^{h}\)u ‘result’, added to an active verb, derives the adjective referring to the result of the action of that verb. For example, in 178 it is added to the verb k\(^h\)at\(^f\)àhà- ‘sprawl out’:

(178) Ó áákityé callájahnécu.
\(\, \, \, ó\, \, \, ^{\circ}\, \, \, á^k^h\)ît\(^h\)-ː\(\, \, \, k^h\)at\(^f\)ahà-\(^{\circ}\)nek\(^{h}\)û ‘I fell, landing sprawled out.’
I fall-{t} sprawl.out-result

The participle in 179 is derived from the verb p\(^h\)irú- ‘exhaust (some quantity)’:

(179) Ó majchó píruhnécu.
\(\, \, \, ó\, \, \, ^{\circ}\, \, \, m^h^h\)ô-ː\(\, \, \, p^h^h\)írú-\(^{\circ}\)nek\(^h\)û ‘I ate everything, without anything left over.’
I eat-{t} exhaust-result

\(^{22}\)(Thiesen & Thiesen 1998:310) gives the meaning of waabyu (transitive verb) as ‘suspect, blame, cast the blame on.’
The suffix -ɾɨβakʰo ‘resulting position’, added to an active verb, derives the adjective referring to the position resulting from the action indicated by that verb. When -ɾɨβakʰo ‘resulting position’ is suffixed to a verb, the verb’s initial vowel is lengthened and bears low tone. For example, in 180 and 181 it is added to the verb ɨβóʔò- ‘to lie face down’:

(180) Éhtsi tsiime iivóhórívacō.
    ɛʾ-ʦʰi ʦʰiːmɛ̀ ɨɓóʔó-ɾɨβakʰọ
    that-⟨place⟩ children lie.face.down-res.pos
    ‘There are children lying face down over there.’

(181) ʘ ájtyumí tsiímeke éhtsi iivóhórívacō.
    ʘáˣtʲʰɯ̀mɨ́-ʔìʦʰɨ́ːmɛ̀-kʰɛ̀ ɛ́ˀ-ʦʰì
    I see-⟨t⟩ children-objAn that-⟨place⟩
    ɨ̀ːβóʔó-ɾɨβakʰò
    lie.face.down-res.pos
    ‘I have seen children in that place lying face down.’

A participle derived by -ɾɨβakʰọ (-rɨvacō) ‘resulting position’ may modify the verb it follows. This reflects the fact that adjectives can be used adverbially, since participles are a type of stative deverbal adjective. For example, in 182 ɨβóʔó-ɾɨβakʰò ‘lying face down’ modifies kʰûkpà ‘sleep’:

(182) Tsiíme éhtsíi cuwá iivóhórívacō.
    ʦʰiːmɛ̀ ɛʾ-ʦʰi lûkpá-ʔì ɨɓóʔó-ɾɨβakʰọ
    children that-⟨place⟩ sleep-⟨t⟩ lie-face.down-res.pos
    ‘The children over there are sleeping, lying face down.’

Another kind of participle is formed by making a stative verb nonfinite (via tone) and concatenating this with tʰɛ- ‘that (aforementioned)’, which provides the referential link to the noun the participle modifies. The participle must agree in number with the noun it modifies: if the noun is singular or dual, then the stative verb bears the single action suffix -ûkʰûmu ‘sSt’; if the noun is plural, the stative verb must bear the multiple action suffix -ˣkʰátʲʰɛ’mSt’. For example, in 183 the modified noun is dual, so the participle is single action. By contrast, in 184 the modified noun is plural, so the participle is multiple action.23 (Another example is 247, page 137.)

23Remarkably, the meaning of iɓóʔíkʰátʲʰè (ivóhijcátye) in 184 seems to be the same as that of iɓóʔóɾɨβakʰò (iivóhórívacō) in 180 and 181.
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(183) a. Éje, áátyétsi téévóhoúcunu.
   b. Éje, áátyétsi cuwá téévóhoúcunu.

   a. éhè , á:-tʰɛ́ʦʰì tʰɛ́-iβóʔò-úkʰùnù
   b. éhè , á:-tʰɛ́ʦʰì kʰùkφáʔ-íi tʰɛ́-iβóʔò-úkʰùnù

   look that-(DuM) sleep-⟨t⟩ that-lie.face.down-sSt
   ‘Look, those (dual masculine) sleep lying face down!’

(184) Éje áátye cuwá téévóhojcatye.

   a. éhè á:-tʰɛ́ʦʰì kʰùkφáʔ-íi tʰɛ́-iβóʔò-xkʰátʰɛ̀
   look that-⟨AnPl⟩ sleep-⟨t⟩ that-lie.face.down-mSt
   ‘Look! Thoses sleep face down.’

Some classifiers have meanings similar to participles, i.e., indicating states that result from prior events or actions. (Many of these are derived from verbs by the suffix -ɯ.) Combinations of these classifiers with pʰa-‘all’ are used as modifiers. They may be further followed by -ːkʰɯ ‘duIn’ or -hi ‘inanimate plural’. Examples follow.

(185) a. Ó ájtyumɨ́ tsáápikye juuváj pɨɨne páɨvóhoou íjyáçunúúbeke.
   b. Ó ájtyumɨ́ tsáápikye juuváyí páávóhoóu.

   óáˣtʰɯ̀mɨ́-ʔìʦʰá-ːpʰì-kʲʰɛ̀
   I see-⟨t⟩ one-(SgM)-objAn

   a. hù:βáˣ pʰɨːnɛ̀ pʰá-:iβóʔò-ːudder
      road middle all-lie.face.down-⟨cls⟩
      íhʲá-kʰùmúː-ːpɛ-ːɯ̀-kʰɛ̀
      be-sSt-(SgM)-objAn
   b. hù:βá:jí pʰá-:iβóʔò-ːudder
      road-oblIn all-lie.face.down-⟨cls⟩

   a. ‘I saw a person (SgM) who was lying face down in the middle of the road.’
   b. ‘I saw a person (SgM) lying face down in the road.’

(186) Muhtsi mácuwá páávóhoóucu.

   mùːʦʰi má kʰùkφáʔ-íi pʰá-:iβóʔò-ːúr-kʰùw
   we(DuEx) SAP sleep-⟨t⟩ all-lie.face.down-⟨cls⟩-du

   ‘The two of us (ex.) slept face down.’

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4.3.5 Negative deverbals

The suffix -tʰù (−tu) ‘negative, without doing’, added to an active verb, derives the adjective referring to the state of not having done or undergone the action of that verb. It is often in apposition to another noun or pronoun, as in 188 and 189:

(188) O péé teene ímíbájchótuubére.
\[òpʰɛ́ː-ʔìtʰɛ̀ː-nɛ̀ ímípáᵗʰó-tʰù-ʔìpɛ́-ɾɛ̀\] ‘I am going without I go-⟨t⟩ that-⟨ø⟩ fix-neg-⟨SgM⟩-only fixing it.’

-rà ‘frustrative, contraexpectation’ often accompanies -tʰù ‘negative’, as in the following examples. Note that in 189 the participle refers to the subject of maᵗʰó ‘eat’:

(189) Májchóratú ú oomíhi.
\[máˣʧʰó-ɾà-tʰù́ ðú́ ð:mí-ʔì\] ‘You are returning without eat-frs-neg you return-⟨t⟩ eating.’

In 190 màᵗʰó-rà-tʰù is used as a predicate complement:

(190) a. màᵗʰó-rà-tʰù tʰèː-nè (Majchóratu teéne.)
\[eat-frs-neg that-⟨ø⟩\]

b. tʰèː-nè màᵗʰó-rà-tʰù (Teene majchóratu.)
\[that-⟨ø⟩ eat-frs-neg\]

a,b. ‘That has not been eaten.’

4.3.6 Affixal “verbs”

Some suffixes are like bound, complement-taking verbs. They follow a verb root or stem, heading the verb + suffix combination. These suffixes are: -ʦʰo ‘causative’ (see section 5.8.1, page 144), -pʰi ‘do to excess, excessive’ (see 4.3.6.1 below), -ʧɛ ‘try to do’ (4.3.6.2), -pʰɛˣʦʰo ‘do upon encountering’ (4.3.6.3), as well as the “relocation” suffixes discussed in section 4.3.6.4.
4.3.6.1 -pi ‘excessive’

The suffix -\(\math{p^h}\) (\(-\pi\)) ‘excessive’ indicates that the action referred to by the host verb is or was done to excess and makes the verb stative. Forms bearing -\(\math{p^h}\) can be used as a verb, as in 191 and 192:

(191) Táácááni cuwápihî.
\[\text{tʰá: } \math{\text{kʰá:ní } kʰ\text{ùkpá-pʰí-ʔí}} \quad \text{‘My father sleeps excessively.’} \]
\[
\quad \text{my father sleep-excess-} \langle t \rangle
\]

(192) Táátsííju ihjyúvapihî.
\[\text{tʰá: } \math{\text{tˢʰí:huɾ } iʰ\text{úβà-pʰí-ʔí}} \quad \text{‘My mother talks excessively.’} \]
\[
\quad \text{my mother talk-excess-} \langle t \rangle
\]

Forms bearing -\(\math{p^h}\) can also be used as predicate adjectives, as in 193 and 194. (Note that the hosts’ tones are high.)

(193) māʰ̥jʰó-pʰí ˀtì-ːpʲɛ̀ (Májchópí diíbye.) ‘He is a glutton.’
\[
\text{eat-excess that-} \langle \text{SgM} \rangle
\]

(194) Chémépí táñaálle.
\[\text{ʧʰɛ́mɛ́-pʰí} \quad \text{tʰá } \math{\text{ɲaː-ʧɛ̀}} \quad \text{‘My sister is sickly.’} \]
\[
\text{be.ill-excess my sib-} \langle \text{SgF} \rangle
\]

4.3.6.2 -lle ‘try’

The suffix -\(\math{tʃe}\) (-lle) ‘try’ is used as in 195:

(195) Oke méénúlleébe.
\[\text{ð-kʰè } \math{\text{mɛ́ːnɯ́-tʃɛ̀-pè}} \quad \text{‘He tried to hit me.’} \]
\[
\text{I-objAn hit-try-} \langle \text{SgM} \rangle
\]

4.3.6.3 -pejtso ‘upon encountering’

The suffix -\(\math{p^hɛˣʦʰo}\) (-pejtso) ‘upon encountering’ (meet) is exemplified in 196. It may co-occur with -\(\math{tʃe}\) (-lle) ‘try to’ as in 197.

(196) Oke méénúpejtsoóbe.
\[\text{ð-kʰè } \math{\text{mɛ́ːnɯ́-pʰɛ́ˣʦʰo-d-ópè}} \quad \text{‘Upon encountering me, he hit me.’} \]
\[
\text{I-objAn hit-meet-} \langle \text{SgM} \rangle \quad \text{he hit me.}
\]

\(^{24}\) In contrast to the classifier -\(\math{p^h}\) (\langle SgM \rangle), the suffix -\(\math{p^h}\) ‘excessive’ never has preaspiration.
(197) Oke méénúpéjtsólleébe.
ô-kʰè mɛ́ːnɯ́-pʰɛ́ˣʦʰó-ʧɛ̀-ːpɛ̀ ‘When he met me, he tried
I-objAn hit-meet-try-(SgM) to hit me.’

4.3.6.4 Relocation to or from doing

The suffixes -iɲɯ (-iũu) ‘go after doing’, -tʰɛ́25 (-te) ‘go to do’, -hɛ (-je) ‘come after doing’, and -βa26 ‘come to do’ indicate relocation before or after the event referred to by the verb. They can be organized along two parameters: (1) whether the action is done “here” or “there” and (2) whether the movement is prior or subsequent to doing the action; see table 4.1.

<table>
<thead>
<tr>
<th>MOVE BEFORE DOING</th>
<th>MOVE AFTER DOING</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO HERE</td>
<td></td>
</tr>
<tr>
<td>1-βa (-vα) ‘come to do’ (come.do)</td>
<td>-iɲɯ (-iũu) ‘go after doing’ (do.go)</td>
</tr>
<tr>
<td>DO THERE</td>
<td></td>
</tr>
<tr>
<td>1-tʰɛ (-te) ‘go to do’ (go.do)</td>
<td>-hɛ (-je) ‘come after doing’ (do.come)</td>
</tr>
</tbody>
</table>

Examples of the various relocalational (directional) suffixes follow:

25.-tʰɛ ‘go to do’ imposes a low tone on the preceding syllable, as demonstrated in the following:

ó ái-ββɛ́-ʔĩ (Ó áiivyéhi.) ‘I got burned.’
ó ái-ββɛ́-tʰɛ́-ʔĩ (Ó áiívetéhi.) ‘I’m going to get burned.’
I burn-sln-go-do-(t)

ó máʧʰó-ββ-ʔĩ (Ó májchóthí.) ‘I’m going to eat.’
máʧʰó-ββ-ːpɛ̀ (Májchotéébe.) ‘He’s going to eat.’
máʧʰó-ββ-ʧɛ̀ (Májchotélle.) ‘She’s going to eat.’
máʧʰó-ββ-ːmɛ̀ (Májchotémé.) ‘They are going to eat.’

26.-βa (-vα) ‘come to do’ imposes a low tone on its host’s penult, as can be seen in the following:

ó máʧʰó-ββ-ʔĩ (Ó májchóváhi.) ‘I’m coming to eat.’
máʧʰó-ββ-ːpɛ̀ (Májchóvaábe.) ‘He’s coming to eat.’
máʧʰó-ββ-ʧɛ̀ (Májchóvalle.) ‘She’s coming to eat.’
máʧʰó-ββ-ːmɛ̀ (Májchóváme.) ‘They are coming to eat.’

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(198) a. máˡʧʰó-hɛ̀-ːpɛ̀ (Májchójeébe.) ‘He came from eating.’
    eat-do.come-⟨SgM⟩
b. máˡʧʰō-tʰɛ́-ːpɛ̀ (Májchotéébe.) ‘He went to eat.’
    eat-go.do-⟨SgM⟩
c. màˡʧʰó-βà-ːpɛ̀ (majchóvaábe) ‘He comes to eat.’
    eat-come.do-⟨SgM⟩

(199) Oke méénúuíũuũe.
    ḍ-kʰɛ̀ mɛ́ːnɯ́-ɨ́ɲɯ̀-ːpɛ̀ ‘He hit me and then left.’
    I-objAn hit-do.go-⟨SgM⟩

(200) Ó cúwaté dihjyávu.
    ó kʰúkpa-tʰɛ́-ːʁi ʰá-βù ‘I am going to sleep
    sleep-go.do-(t) your house-goal in your house.’

(201) Ó cúwajé dihjyári.
    ó kʰúkpa-hɛ̀-ːʁi ʰá-ːri
    I sleep-do.come-(t) your house-sou
    ‘I return from sleeping in your house.’

(202) Ó cuwává dihjyávu.
    ó kʰúkpa-βà-ːʁi ʰá-βù ‘I come to sleep in
    sleep-come.do-(t) your house-goal your house.’

    It is possible to combine a relocation suffix with another affixal verb
    such as the causative, as shown in 203:

(203) Oke májchotétsoóbe.
    ḍ-kʰɛ̀ máˡʧʰō-tʰɛ́-ʦʰò-ːpɛ̀ ‘He made me go to eat.’
    I-objAn eat-go.do-caus-⟨SgM⟩

    The suffix -ʈʰɛ̀ ‘go to do’ and -ʈʰβà ‘come to do’ may be followed
    by -ʈʰkʰì ‘purpose’ (which is otherwise used to form adverbial clauses).
    The combination of ‘come to do’ or ‘go to do’ and -ʈʰkʰì indicates that
    the action indicated by the host verb is the purpose for going or coming,
    as in 204:

(204) a. ó máˡʧʰō-tʰɛ́-kʰì (Ó májchotéki.) ‘I go to eat there.’
    b. ó máˡʧʰō-βà-kʰì (Ó majchóvaki.) ‘I come to eat here.’

    The suffix -ʈʰkʰì can be added to a main verb only if -ʈʰɛ̀ or -ʈʰβà is
    first affixed to it.27

27 In a generative framework this might be understood in terms of head-to-head movement
   along the following lines: 204 is derived from a structure like that in a. (below), in which
   an adverbial clause is within the verb phrase headed by -ʈʰɛ̀ ‘go to do’. First maˡʧʰo moves
The suffix -tʰɛ̀ ‘go to do’ may be used with the verbalizer -βà ‘have’ to indicate departure from normal state: kʰájòpá-βà-tʰɛ̀ ‘become angry’, áh’àpá-βà-tʰɛ̀ ‘become hungry’, mɛ̀í-βà-tʰɛ̀ ‘to go crazy’, tɯ̀ˀkʰɯ́-βà-tʰɛ̀ ‘to become weak’. The tone derivations of two affixal-verb combinations, ó kʰájò-pá-βà-tʰɛ̀-ʔì and kʰájò-pá-βà-tʰɛ̀-ʦʰó-mɛ́, are shown in figure 4.3:

```
<table>
<thead>
<tr>
<th>o cayo anger</th>
<th>cayo anger</th>
</tr>
</thead>
<tbody>
<tr>
<td>: L__ba mIn</td>
<td>: L__ba mIn</td>
</tr>
<tr>
<td>: = L__va have</td>
<td>: = L__va have</td>
</tr>
<tr>
<td>: : : L_te go.do</td>
<td>: : : L_te go.do</td>
</tr>
</tbody>
</table>
ó cayo-bá-va-té-hi
'I became angry.'
```

Figure 4.3 TD: ó cáyobávátéhi, cáyobávátétsámé

to join -tʰɛ, stranding -kʰi; see b. (below). Subsequently -kʰi cliticizes to -tʰɛ:

```
a. S               b. S
\( \text{NP} \)    \( \text{NP} \)   \( \text{VP} \)    \( \text{VP} \)   \( \text{Adv} \)
\( \text{o} \)      \( \text{o} \)     \( \text{V} \)      \( \text{V} \)  \( \text{Adv} \)
\( \text{-tʰɛ} \)    \( \text{-tʰɛ} \) \( \text{-kʰi} \)  \( \text{-kʰi} \) \( \text{-pur} \)
\( \text{-.go.do} \) \( \text{-.go.do} \) \( \text{maʔ⁹ho} \) \( \text{maʔ⁹ho} \) \( \text{eat} \)
\( \text{eat} \)         \( \text{eat} \)          \    \    \    \    \
```

28 Other cases of this combination indicate departure from normal state less obviously, e.g., kpáŋe'hui-βà-tʰɛ̀ ‘to perform a festival’, ápʰuʧʰó-βà-tʰɛ̀ ‘to hunt for the cause of illness by divination’. And some, of course, simply indicate physically going: háŋʔãŋe-βà-tʰɛ̀ ‘to go to visit’. 

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4.3. AFFIXAL DERIVATION

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4.3.7 Adverbs and adjectives
Some words, like kpahʲɯ ‘stingy’, are adjectives.29 Others are adverbs, for
example, ʦʰàíhʲɯ̀ ‘at the same time, at the same moment’.30 Yet others are
29 See the following in (Thiesen & Thiesen 1998); these words sometimes appear within
the lexical entry of the adjective’s stem: ábajɨ́hco, aabópi, aabúcu, adɨ́ɨj́ ɨ, adópi, aíjcyo,
ajtyúva, álliu, allóócoó, ámɨ́ɨć uú, ámɨ́tsaráhco, ani, aapáromúva, aápi, ápííchoó, avyécu,
avye, aya, baába, bahmɨ, bahri, bajtu, beréjco, bɨ́ɨb́ ɨrɨ́va, bɨrɨ́hba, bɨɨ́va, bohɨ, boohówa,
bolléécuú, caráhja, carájco, cááyóbaá, cáyóbanéjcu, cohpe, corɨ, cúhyumúva, cúváácuú,
cuúve, cuwáácu, cuwápi, chaacháva, chéiyíva, cheme, cheméjco, cheréjco, chovájco,
dáíhyañe, dáɨ́hcoó, daárɨ, dóllóhcoó, doópi, duhcu, duujɨ́nuúdu, duurúva, dsɨjɨ, dsɨɨ́ne,
dsɨnéhco, éhnííñeé, éréhcoó, ééyóií, iibórɨba, íhdyúehójtsɨ, iijyéve, illi, imye, ímídyoó,
ímídyonéjcu, imíjyau, ímíjyuú, imílle, iímu, iiñúva, ɨ́buúcu, ɨ́dáátsoó, ɨhtsu, ɨhve, ɨhvétso,
ɨjca, ɨɨ́jɨ, ɨ́mɨa, ɨɨtépi, kehdóve, kehye, kyehéjco, kehju, keéme, kemu, ketúúva, kiwa,
kɨ́úhcoó, llaaníva, llévanéjcu, lliíhi, llijcya, lliya, llorójco, macháhco, majchi, májchíjyuú,
maatyóva, méíhcyoó, ménunéjcu, meenúpi, meéva, mitya, mítyáhcoó, muuíjyuúvu, nahtsɨ́va, najca, naníva, néhniñéjcu, níwaúhco, nojco, nómiúúva, noúhco, núhnevéjco, ñajáhco, ñáyájcoó, ñojáhco, ñomɨ, oíhcyo, ókéhcoó, oonóva, oújco, oovátu, óvéheé, oyóócu,
pábyanéjcu, pacyóva, pádúúcuú, pahdúva, pájúvaá, pañe, paápa, patyéhco, pavye,
pecúhco, píhllóií, pívyétenéjcu, pɨɨ́mɨ, pɨɨ́pa, pɨ́rúúcuú, poáhco, póñóócuú, pore, pujúhco, rayúhcoó, rérohjáco, reróhco, rohdsɨ, rójɨ́hcoó, ruhíhcyo, ruhíhcyo, rutújco, taícho, táákívyeé, téávohjúcunu, técánohjúcunu, teéve, tɨjɨ́hca, toócu, tuucúva, tuhúúlle,
tujpa, tújpañe, tuutáva, tútávanéjcu, tsaímijyúre, tsaɨ́ɨb́ uwáre, tsápɨnéjcu, tsaráácu,
tsáriñéjcu, tsijye, tsijye, tsɨtsɨ, tsocájco, tsohco, tsuúco, tsuhjɨ́va, údíícyuú, údícyunéjcu,
uhje, ujcáva, ujcútso, ujtsi, úmeco, úmuupícho, úmuupílle, úúpíyií, úraavyépi, vájɨ́hcoó,
veúhco, viío, viújco, vúdójcoó, wahpe, waája, waajácu, wájácunéjcu, wájanéjcu, waajápi,
wajyu, wáñéhtsoó, wátyuáco, yaayáva.
30 See the following entries in (Thiesen & Thiesen 1998): abájɨhnécu, abátejnécu,
áábaúvúre, aaca, acádsɨhnécu, ácoóca, ácuhnécu, aacúrɨ́vaco, ahdícyane, ahdu, áhdure, áijyu, ájcoójɨ, ákyehnécu, áánáa, ááne, aanéjɨ́ɨv́ a, áánélliíhye, áánema, áánetu,
aanúhórɨ́vaco, apáhajchíí, apáhdyúre, ápahjɨ́re, apáijyúre, árónáa, ávyeta, ávohnécu,
aavórɨ́vaco, bɨwáhdúre, bóóneé, bootsérɨ́vaco, botsíiíkye, caabóhjúrɨ́vaco, cábuúba,
caadírɨ́vaco, caadúdárɨ́vaco, callájahnécu, callájárɨ́vaco, caallíhórɨ́vaco, caallúrɨ́jɨ́rɨ́vaco, caanórɨ́vaco, caapárɨ́vaco, caapátyúrɨ́vaco, caapátsɨ́rɨ́vaco, caarárɨ́jɨ́rɨ́vaco,
caarúrɨ́vaco, caatɨ́jɨ́rɨ́vaco, caatórɨ́vaco, caatórórɨ́vaco, caatsóhórɨ́vaco, caatsúrɨ́vaco,
caawárɨ́vaco, cójɨ́éllé(h), coomírɨ́vaco, cuujúrɨ́vaco, cúúvéhullére, choóco, deehérɨ́vaco,
dɨɨbérɨ́vaco, doobérɨ́vaco, dootóúrɨ́vaco, doovíyírɨ́vaco, éée, ehdícyane, (ehdu, íjcyane),
ehdu, éhjɨ́hjɨtu, éhjɨ́hjɨtu, éhlleé, éíjyuú, eekérɨ́vaco, élleé, hajchóta, ícyoóca, íchii,
idyé, íévene, íhya, íhajchííjyu, ihdyu, íhdyure, iíjcyadúre, ijcyátúre, íjcyoójɨ, iijyócúrɨ́vaco, íijyu, iíjyu, ííjyuííjyu, ííjyupéjco, íílleé, ílluú, íllúhwu, ílluúnéétútsihdyu, ímichi, ípyejco, ípíubá, ɨ́ɨć úií, ɨ́dsɨhɨ́vánetu, ɨ́hdeé, ɨ́hdéjuco, ɨhtsúta, ɨɨtsɨ́rɨ́vaco, ɨ́veekí, ɨɨvóhórɨ́vaco, ɨɨwárɨ́vaco, kiá, miibyérɨ́vaco, múcoóca, muhdú, múijyu, muurá(h), mútsií, nanítyari, néhijyácaá, nehíkyére, nihñe, níhñécunu, nɨɨjcáúrɨ́vaco, oobɨ́ráúrɨ́vaco, oohárɨ́vaba, oohárɨ́vaco, oohbárɨ́vaco, ojpíítyari, óuuvératu, paachíchárɨ́vaco, pahdu, paíjyuva,
pane, páoohájɨ, paarúrɨ́vaco, paatúrúrɨ́vaco, paatsɨ́rɨ́vaco, paayúrɨ́vaco, pécóhajchóta, pécójpɨɨ́ne, peecútére, peíjuco, peíye, pejco, péjcore, péjcorétúre, pevétáre,
piéhdúre, piillúrɨ́vaco, piityáhárívaco, pɨ́rune, pɨɨtórɨ́vaco, reevórɨ́vaco, rootóhórɨ́vaco,
taarívájárɨ́vaco, taaróhjɨ́rɨ́vaco, téchiúcunu, tehdu, tehdújuco, téhdure, téijyu, téijyócunu, téɨ́bórɨ́baúcunu, téɨɨbúwa, téɨ́tsɨúcunu, téɨ́vóhoúcunu, téjcoojɨ́vádu, témíbyeúcunu, témótsiúcunu, téénélliíhye, téñáhiúcunu, tépaayúcunu, tétácúruhjúcunu, tétódsɨúcunu, téévéneúvu, teevétari, téwátyuúcunu, toodsɨ́rɨ́vaco, tujkénu, tsáhaá, tsahííyi,

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used as both adjectives and adverbs, for example, ūũṹʔi ‘weak (adjective); slowly (adverb)’.  

Some adjectives may be used as adverbs when followed by -ne-⟨ø⟩. For example, in 205 mítʰh-à-nè (much/big-⟨ø⟩) ‘much, hard’ is used adverbially:

(205) mítyane wákímyeííbye  
  mítʰh-à-nè kpákʰímɛ́ːjɛ-ːpʰè  ‘He works hard’ or  
  big-⟨ø⟩ work-⟨SgM⟩  ‘He works a lot.’

The word ímí-nè ‘well’ is used as an adverb in 206:

(206) Ímiñe wákímyeííbye  
  ími-ːnè kpákʰímɛ́ːjɛ-ːpʰè  ‘He works hard’ or  
  good-⟨ø⟩ work-⟨SgM⟩  ‘He works a lot.’

Likewise, kʰóˀpʰɛ̀-nè (hard-⟨ø⟩) ‘solid, firm, hard’ is used adverbially in 207:

(207) cóhpene mîchchúúveco.  
  … kʰóˀpʰɛ́-nè-míˀʧʰɯ́-ɯ́βɛ̀-kʰò  hard-ø close.eyesImp-sIn-implore  
  ‘…close your eyes tight.’

When such deadjectival adverbs are followed by -lɯβɯ ‘max’, the low tone of -lɯβɯ ‘max’ is delinked so that -lɯβɯ ‘max’ can dock its low tone; see 208:

(208) kʰóˀpʰɛ̀-nè-úβɯ (cóhpé-ne-úvu) ‘very hard or tight’  
  hard-adv-max  
  pʰIrú-ːnè-úβɯ (pírú-ne-úvu) ‘completely’  
  complete-adv-max  
  ímí-ːnè-úβɯ (ímí-ñe-úvu) ‘very well’  
  good-adv-max

31See the following entries in (Thiesen & Thiesen 1998): aába, aabájke, átéréé, baňu, caáme, chohju, dseréjco, íahpádyu, imi, imíchi, ímítyuú, ímúbááne, ínnáho, íntsú-tu, keéva, kimohco, lłeéva, mítyane, nehi, núcojíso, pevéne, píhíre, tányedúu, téévetůne, tuhu, tujkéve, tsahdu, tsámíye, tsajcyu, tsajpi, tsari, tsatújkeve, tsááva, tsá- 
vanéjcu, tsíhyu, tsíhdyure, tsíjpa, uúhi.
4.4 Verbs with incorporated instruments

The prefixes of table 4.2 indicate the class of the instrument used to carry out the action indicated by the verb with which they occur.\(^{32}\)

<table>
<thead>
<tr>
<th>Table 4.2 Instrumental prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>to- (do-) ‘do with the hand’</td>
</tr>
<tr>
<td>ti- (di-) ‘do with the teeth’</td>
</tr>
<tr>
<td>tʰa- (ta-) ‘do with the foot’</td>
</tr>
<tr>
<td>kʰa- (ca-) ‘do with something pointed’</td>
</tr>
<tr>
<td>kʰi- (ki-) ‘do with some cutting tool’</td>
</tr>
<tr>
<td>pʰi- (pi-) ‘do with something like a saw’</td>
</tr>
<tr>
<td>kpa- (wa-) ‘do by a series of blows’</td>
</tr>
</tbody>
</table>

These are illustrated in tables 4.3 and 4.4. In table 4.3, pʰuḥu ‘break something fragile’ is followed by -ʔhákʰò ‘sTr’ and in table 4.4 ʔtàʔi ‘break’ is followed by -rò ‘sTr’. Despite having these singular transitive suffixes, these derived verbs may be used as transitive, intransitive or stative.

<table>
<thead>
<tr>
<th>Table 4.3 Instrumental prefixes with púju ‘break something fragile’</th>
</tr>
</thead>
<tbody>
<tr>
<td>tó-pʰúhù-ʔhákʰò ‘break something fragile with the hand’</td>
</tr>
<tr>
<td>(dópújúhjáco)</td>
</tr>
<tr>
<td>tí-pʰúhùr-ʔhákʰò ‘break something fragile with the teeth’</td>
</tr>
<tr>
<td>(dípújúhjáco)</td>
</tr>
<tr>
<td>tʰá-pʰúhùr-ʔhákʰò ‘break something fragile with the foot’</td>
</tr>
<tr>
<td>(tápújúhjáco)</td>
</tr>
<tr>
<td>kʰá-pʰúhùr-ʔhákʰò ‘break something fragile with</td>
</tr>
<tr>
<td>(cápújúhjáco)</td>
</tr>
<tr>
<td>kpá-pʰúhùr-ʔhákʰò ‘break something fragile with</td>
</tr>
<tr>
<td>(wápújúhjáco)</td>
</tr>
<tr>
<td>a series of blows’</td>
</tr>
</tbody>
</table>

\(^{32}\)These are not productive prefixes. They are—presumably—the result of an earlier process of incorporation. Evidence for earlier incorporation is that, for some of these prefixes, there are cognate classifiers (see section 6.1.3); both the prefixes and cognate classifiers must have derived from what was once a free-standing noun.

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### Table 4.4 Instrumental prefixes with ńdahí ‘break, sever’

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tó-ʔtàʔɨ́-ɾò</td>
<td>‘break something into pieces with the hand’</td>
</tr>
<tr>
<td>(dóhdahíro)</td>
<td></td>
</tr>
<tr>
<td>tɨ-ʔtàʔɨ́-ɾò</td>
<td>‘break something into pieces with the teeth’</td>
</tr>
<tr>
<td>(dɨ́ hdahíro)</td>
<td></td>
</tr>
<tr>
<td>tʰá-ʔtàʔɨ́-ɾò</td>
<td>‘break something with the foot’</td>
</tr>
<tr>
<td>(táhdahíro)</td>
<td></td>
</tr>
<tr>
<td>kʰí-ʔtàʔɨ́-ɾò</td>
<td>‘sever something with a cutting tool’</td>
</tr>
<tr>
<td>(kíhdyahíro)</td>
<td></td>
</tr>
<tr>
<td>pʰɨ́-ʔtàʔɨ́-ɾò</td>
<td>‘sever with something like a saw’</td>
</tr>
<tr>
<td>(pɨ́ hdahíro)</td>
<td></td>
</tr>
<tr>
<td>kpá-ʔtàʔɨ́-ɾò</td>
<td>‘cut or sever by a series of blows’</td>
</tr>
<tr>
<td>(wáhdahíro)</td>
<td>with some tool</td>
</tr>
</tbody>
</table>
Chapter 5

Main Clauses and Verbs

Clauses are either main or subordinate. Main clauses are described here. Subordinate clauses are described in chapters 16–18.

A complete sentence has at least one main clause with a subject and predicate. The subject may be either a postverbal classifier or it may be preverbal, in which case the verb is followed by either -ʔi (-hi) ⟨t⟩ or -nɛ (-ne) ⟨n⟩, as described in section 5.4. A preverbal subject may be a noun phrase or it may be a proclitic. The tone of proclitic subjects is discussed in section 3.12.2, page 93.

The predicate may be a verb or verb phrase, as discussed in sections 5.1, 5.2, and chapter 14, or it may be a noun or adjective phrase, as discussed in section 5.3. Verb phrases are conjoined by simple juxtaposition.

How sentences are conjoined to form discourses is explained in section 19.1, page 395.

5.1 Basic sentence structure

The basic clause has a subject and a predicate, and the subject precedes the predicate. For example, in 209 the subject is the noun phrase öːʔíːpʲɛ̀ ‘dog’ and the predicate is the verb tsiːnɛ̀ ‘run’:

(209) öːʔíː-ːpʲɛ́ ʦɨ̀ːnɛ́-ʔì (Oohíbyé dsɨɨnéhi.) ‘The dog runs.’
  dog-⟨SgM⟩ run-⟨t⟩

The subject may be a free, preverbal pronoun, as in 210:
CHAPTER 5. MAIN CLAUSES AND VERBS

(210) á:nù tʃʰɛ̀mɛ̀-ʔì (Áánu cheméhi.) ‘This one (SgM) is sick.’
   this be.ill-(t)

A clause may contain many other phrases, the order of which may vary considerably. (This word-order flexibility is undoubtedly due to Bora’s healthy case system.)

When the subject is an overt, preverbal pronoun, if it is either first or second person and either dual or plural, then the verb bears the proclitic mɛ ~ ma₁ ‘nonsingular speech-act participants’, which will be glossed SAP. For example, in 211 the subject is first person plural exclusive (that is, it does not include the hearer); in both the conditional and the main clause the verb bears me ‘SAP’:

(211) ímí muha mecúwaca tsá muha mechéméturóhi.
   ímíʔ mɯʔàmɛ̀ kʰɯkpà-kʰà
good we.ex SAP sleep-CF
   tʃʰǎʔ mɯʔàmɛ̀ tʃʰɛ̀mɛ̀-tʃʰù-ɾó-ʔì
not we.ex SAP be.ill-neg-frs-(t)
   ‘If we (ex.) had slept well, we would not have gotten sick.’

In 212 the subject is second person plural:

(212) ímí ámuha mecúwáhajchíí tsá ámuha mechéméítyuróhi.
   ímíʔ ámɯʔàmɛ̀ kʰɯkpá-ʔàˣʧʰíː
good you.pl SAP sleep-if
   tʃʰǎʔ ámɯʔàmɛ̀ tʃʰɛ̀mɛ̀-í-tʃʰù-ɾó-ʔì
not you SAP be.ill-fut-neg-frs-(t)
   ‘If you (pl) sleep well, you are not likely to get sick.’

Of course, mɛ ~ ma- ‘SAP’ is not used when the subject is third person; compare 213 with 211–212:

(213) ímí ditorye cúwáhajchíí tsá ditorye chéméítyuróhi.
   ímíʔ ti-tʃʰè kʰɯkpá-ʔàˣʧʰíː
good (AnPl) sleep-if
   tʃʰǎʔ ti-tʃʰè tʃʰɛ̀mɛ̀-í-tʃʰù-ɾó-ʔì
not (AnPl) be.ill-fut-neg-frs-(t)
   ‘If they sleep well, they are not likely to get sick.’

¹/ma/ occurs before /a/. 

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In examples 211 and 212 mɛ ~ ma ‘SAP’ is preceded by an overt pronoun. When a pronoun does not precede mɛ ~ ma, the subject is impersonal, as illustrated in 214:²

(214) İmí mecúwáhajchíí tsá mechéméityuróhi.

\[
\begin{align*}
\text{Imí} & \quad \text{mɛ} & \quad \text{kʰúkpfáʔàxoops} & \quad \text{tsʰᵊ} & \quad \text{mɛ} & \quad \text{tʰɛ́mɛ́-i-tʰù-ró-ʔi} \\
& \quad \text{good} & \quad \text{SAP} & \quad \text{sleep-if} & \quad \text{not} & \quad \text{SAP} & \quad \text{be.ill-fut-neg-frs} & \langle t \rangle \\
\end{align*}
\]

a. ‘If we (incl.) sleep well, we are not likely to get sick.’

b. ‘Whoever sleeps well is not likely to get sick.’

Perhaps the impersonal nature of the subject is even clearer in 215:

(215) má àʧɛ́-ʔi (Máallehi.) ‘It is raining.’ (lit. ‘We are raining.’)

SAP rain-⟨t⟩

5.2 Subjects indicated with classifiers

When a main clause has a preverbal subject, the verb ends with -ʔi (-hi) ⟨t⟩, as in the column labeled PREVERBAL SUBJECT in 216, or—if negative—with -nɛ̀(-ne) ⟨n⟩. This is discussed further in section 5.4.

(216) PREVERBAL SUBJECT    POSTVERBAL SUBJECT

a. Ō majchóhi. Ó màʧʰó-ʔi — ‘I eat.’

I eat-⟨t⟩

b. Dipye majchóhi. Májchoöbe. tì-pʰɛ̀ màʧʰó-ʔi màʧʰó-ːpɛ̀ ‘He eats.’

that-⟨SgM⟩ eat-⟨t⟩ eat-⟨SgM⟩

c. Dille majchóhi. Májcholle. tì-tʧɛ̀ màʧʰó-ʔi màʧʰó-tʧɛ̀ ‘She eats.’

that-⟨SgF⟩ eat-⟨t⟩ eat-⟨SgF⟩


that-⟨AnPl⟩ eat-⟨t⟩ eat-⟨AnPl⟩

Instead of a preverbal subject, a third person subject may be indicated by a classifier suffixed (or cliticized) to the verb, as in the column labeled POSTVERBAL SUBJECT in 216.³ These will be referred to as CLASSIFIER SUBJECTS.

²The literal meaning of 214 is as given in 214a, but it is construed as in 214b.

³Note that there are two forms of the animate plural classifier. See section 6.1.1, especially table 6.1 on page 164, regarding such differences the distribution of different forms of the animate classifiers.
If the subject is animate, one of a very small set of animate classifiers is used, the majority of which are given in Table 5.1. Although these are most frequently used as third person, they sometimes occur in apposition to a first or second person subject; see, for example, 642, page 271.

Table 5.1 Animate subject classifiers

<table>
<thead>
<tr>
<th>Classifier</th>
<th>Gender</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ːpɛ ( -:be)</td>
<td>⟨SgM⟩</td>
<td>-ːpɛ ( -:be) ⟨SgM⟩</td>
</tr>
<tr>
<td>-ʧɛ ( -lle)</td>
<td>⟨SgF⟩</td>
<td>-ʧɛ ( -lle) ⟨SgF⟩</td>
</tr>
<tr>
<td>-mɯʦʰi ( -mutsi)</td>
<td>⟨DuM⟩</td>
<td>-mɯʦʰi ( -mutsi) ⟨DuM⟩</td>
</tr>
<tr>
<td>-mɯpʰɨ ( -mupɨ)</td>
<td>⟨DuF⟩</td>
<td>-mɯpʰɨ ( -mupɨ) ⟨DuF⟩</td>
</tr>
<tr>
<td>-mɛ ( -me)</td>
<td>⟨AnPl⟩</td>
<td>-mɛ ( -me) ⟨AnPl⟩</td>
</tr>
<tr>
<td>-ʦʰɨ ( -tsɨ)</td>
<td>⟨child⟩</td>
<td>-ʦʰɨ ( -tsɨ) ⟨child⟩</td>
</tr>
</tbody>
</table>

Whenever there is no preverbal subject there must be a classifier subject, using the classifier that corresponds to (the referent of) the subject; this is further illustrated in 217:

(217) a. ákʰɯ́ːβɛ̀-ːpɛ̀ (Ácúúveébe.) ‘He sat down.’ (SgM)
    b. ákʰɯ́ːβɛ̀-ʧɛ̀ (Ácúúvelle.) ‘She sat down.’ (SgF)
    c. ákʰɯ́ːβɛ̀-mɯʦʰi (Ácúúvemútsi.) ‘They sat down.’ (DuM)
    d. ákʰɯ́ːβɛ̀-mɯpʰɨ̀ (Ácúúvemúpɨ.) ‘They sat down.’ (DuF)
    e. ákʰɯ́ːβɛ̀-mɛ̀ (Ácuuvéme.) ‘They sat down.’ (AnPl)

This is true of inanimate subjects as well. For example, one could report that a book is burning with 218 because ‘book’ corresponds to the class of -ʔaːmɨ ⟨leaf⟩.

(218) áíːβʲɛ́-ʔáːmɨ̀ (Áíívyéháámɨ.) ‘The leaf (paper, book,...) is burning.’

There are several hundred classifiers that can be used as classifier subjects; see appendix E for a fairly comprehensive list. There is even a semantically least-specified classifier, -nɛ̀ ⟨ø⟩, which may be used when no more-specific classifier is appropriate, as in 219:

(219) àʧɛ́-nɛ̀ (Alléne.) ‘It is raining.’

A plural marker may follow the inanimate classifier subject, either -ːkʰɯ ‘duIn’ or -⁽ˀ⁾hɨ ‘plural’, as in 220:

---

4Although -mɯ-ʦʰi ⟨DuM⟩ and -mɯ-pʰɨ ⟨DuF⟩ are bimorphemic, for convenience we write them as single morphemes throughout this grammar.

5This can also be expressed using an impersonal subject; compare 219 to 215.
5.3 Predicate complements

The predicate complement sentence is formed by a predicate complement (a noun or adjective phrase), a subject and an (explicit or implicit) copular verb ḫèkì ‘be’. For example, consider the relative clause in 223 above; the predicate complement is hôáà ‘John’, the subject is ìmìmè ‘self’s name’, and the copula is ḫèkì ‘be’.

6The final appositional phrase of 223 is a noun phrase headed by -pe (SgM) and modified by a prenominal relative clause.
The subject sometimes precedes the predicate complement, and the copula is frequently absent, as will be seen below.

The predicate complement may be a noun or adjective phrase. If it is an adjective (phrase), it characterizes the subject. For example, in 224 the subject is characterized as good (and the copula is implicit):

(224) ímíʔ tiː-pːɛ tʰáːkʰáːnìí (Ímí diíbye.) ‘He is good.’
   good that-⟨SgM⟩

When the predicate complement is a noun (phrase), the referents of the subject and of the complement are understood to be one and the same. For example, in 225 the referent of the subject, ‘that one (singular masculine)’ and the complement ‘my father’ are understood to be one and the same. Note that the subject and predicate complement may be in either order.

(225) a. tʰáːkʰáːnìí tìːpːɛ (Diibye táácaánií.)
   my father that-⟨SgM⟩ ‘He is my father.’

The predicate complement may be a noun (phrase) that refers to a location. For example, in 226 the predicate is aːʔì.

(226) aːʔì tìːpːɛ (Aøhì diíbye.) ‘He is at home.’
   home that-⟨SgM⟩

In 227 and 228 the predicate complement is a genitive phrase headed by a locative noun; see 7.2.3. (The subject of 227 is the classifier -nɛ ⟨ø⟩.)

(227) [há(t) Ⓔ pʰbùŋɛː] iʰkʰá-nɛ (Já pañe ijcyáne.) ‘It is in the house inside be-⟨ø⟩ the house.’

(228) Méétsá lliiñe oohíbye.

The suffix -ʔiʰkʰa ‘habitual action or characteristic’ is an affixal form of iʰkʰa ‘be’; see section 5.10.2 for discussion.

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5.4 End of main verb markers

When a main clause has a preverbal subject, the verb is followed by -ʔi ⟨t⟩ (5.4.1) or -ne ⟨n⟩ (5.4.2).  

5.4.1 -hi ~ -h ⟨t⟩

The morpheme -ʔi ⟨t⟩ is suffixed to the verb of the main clause, as in 229:

(229) Ávyéjuube ihájkímuke néé ditya ihjya iímibájchoki.
   áβʲɛ́hɯ̀-ːpɛ̀ Gı ʔáˣkʰí-mɯ̀-kʰɛ̀ nɛ́ː-ʔ(ì) ti-tʲʰɛ̀ self folk-plAn-objAn say-⟨t⟩ that-⟨AnPl⟩
   ɨ́ hʲà ì ɪ́mípáʰ-tʲʰ-ð-kʰᵢ self house self fix-pur
   ‘The chief told his people to fix his house.’

This suffix occurs only with explicit preverbal subjects, as in 230a. It does not co-occur with a classifier subject, as in the first alternative in 230b:

(230) a. ɨ̀ːhɯ́ ɯ́mɨβá-ʔì (Ɨɨju úmɨvá.) ‘The horse escaped.’
   horse escape-⟨t⟩

   b. (∗) ɯ́mɨβá-ːpɛ́-ʔì  \{ escape-⟨SgM⟩-⟨t⟩  \}
       ɯ́mɨβá-ːpɛ̀ escape-⟨SgM⟩
       (√U̱mívaábe.) ‘He escaped.’

Nor does it occur in negative clauses; such cases are discussed in the next section.

The suffix -ʔi ⟨t⟩ imposes a low tone on its host’s penult:

(231) a. ó tʃɛːnɛ-ʔì (ó lleenéhi) ‘I eat (fruit).’
   b. ó ípɛ́tʰɛ́-ʔì (ó ñɛ̂u téhɛ́hi) ‘I stop.’

---

8 A theory that entertains some notion of movement might consider ⟨t⟩ and ⟨n⟩ to be “traces” of subjects that have been moved to a preverbal position. This could be motivated by the following distributional facts: (1) ⟨t⟩ and ⟨n⟩ never co-occur with a classifier subject, presumably because they occupy the position of classifier subjects, and (2) ⟨t⟩ and ⟨n⟩ occur if and only if there is an overt preverbal subject (pronoun, name, or noun phrase).

9 This could also refer to “their” house, i.e., it could be bound by the indirect object rather than the subject of the higher clause. The interpretation given in 229 is preferred because ‘house’ is singular. If, however, the object were plural, that is ɪ́hجة ʔápɛ̀ (self house various) ‘his/their various houses’, then the favored interpretation would be ‘their houses’.

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(232) a. Ó ímíbajchóhi.
   ó ímípᵃ.FixedSingleʰóʔi ‘I fix.’
   I fix-⟨t⟩
b. Ó ímíbájchotéjucóóhi.
   ó ímípᵃxDFbóʔi-辋ᵗ ’Now I go to fix (it).’
   I fix-go.do-now-⟨t⟩

However this may be blocked by other lexically marked low tones. For example, in 233 the verb stems have a lexically marked low tone on the antepenult, so -atedRoute(i) ⟨t⟩ cannot dock its ⟨t⟩ on the penult:

(233) a. ó /fwiiʔêʔi ‘I visit.’
   b. ó ámáʔúkʰuʔi ⟨ó ámabúcúhi⟩ ‘I hug.’

Sentence finally, the segments of -atedRoute(i) ⟨t⟩ are both spoken and written, as in 234a; sentence medially, the /ʔ/ is spoken but not written, whereas the /i/ is neither spoken nor written, as in 234b.10

(234) a. ó àʔtőʔi ⟨Ó ahdóhi.) ‘I paid.’
   I pay-⟨t⟩
b. ó àʔtőʔi-뜰pʰɛ́ʔi ⟨Ó ahdó dííbyeke.) ‘I paid him.
   I pay-⟨t⟩ that-⟨SgM⟩-objAn

5.4.2 -ne ⟨n⟩

The morpheme -.Panelnè ⟨n⟩ is suffixed to the verbs of negative sentences, whether declarative or imperative. It occupies the position -Panelʔi ⟨t⟩ occupies in a nonnegative sentence. However, unlike -Panelʔi ⟨t⟩, an explicit preverbal subject is not required, as shown by 235:

(235) mᵃ Donationhő-ti(nè) (¡Májchotí(ñe)! ‘Do not eat!’
   eat-neg-⟨n⟩

Following -thu ‘negative’, -Panelne ⟨n⟩ is optional:

(236) lšʰ anteí hô-thú-(nè) (Tsá o májchotú(ne).) ‘I did not eat it.’
   not I eat-neg-⟨n⟩

In a prohibition, if -ne does not follow the verb, then a glottal stop does,11 as in 237 (in which the glottal stop is not written):

---

10 There is some variation, with younger speakers pronouncing less of the segmental material of this suffix than older speakers.
11 This may reflect the presence of -Panelʔi ⟨t⟩.
5.5 STATEMENTS OF FACT

133

(a) {Pehdíñe

\( {\text{p}^{h} \text{ɛ̀-tí-ɲɛ̀} } \)}

\( {\text{p}^{h} \text{ɛ̀-tí-��} } \)

téhullévu.

(237)

b. Téullévù

\( {\text{pehdíñe.} } \)

\( {\text{pehdí.} } \)

‘Do not go (over there).’

The -\( {\text{n}} \)è, which has been glossed \( ⟨n⟩ \) is probably the same suffix as the one glossed \( ⟨o⟩ \). This would be the case if negative clauses were complements to a negative verb (one which time has robbed of most verbal responsibilities and privileges). This would not only explain the presence of -\( n \)é, but also the fact that the initial syllable of the verb of negative clauses bears high tone. For example, 236 above would structurally be the following:

(238) \( [vts^{h}a^{h}] \) [\( S \) \( \text{ǒ mā}^{x}\text{ŋ}^{h} \text{t}^{h}\text{ú}^{h} \) \( nè \) ] ‘I did not eat it.’

deny I eat-neg \( ⟨o⟩ \)

5.5 Statements of fact

Another sort of sentence, one used to state a fact, consists simply of a subordinate clause terminated with -\( {\text{n}} \)è \( ⟨o⟩ \). Presumably this clause is the predicate complement of an implicit verb be, the implicit subject of which is something like fact. The first sentence of 239 illustrates this type of sentence:

(239) Ó májchoróne. Árónáa tsá o óóvetúne.

\( \text{ǒ mā}^{x}\text{ŋ}^{h} \text{t}^{h}\text{ú}^{h} \text{ô-ró-nè. Á-ró-náà ts}^{h}a^{h} \text{ô oβ}^{x} \text{ɛ̀-t}^{h}\text{ú}^{h}-nè.} \)

I eat-frs-\( ⟨o⟩ \) thm-frs-while not I be.full-neg-\( ⟨n⟩ \)

‘(It is a fact) that I ate. However, I am not full.’

This has the same feel as English It is a fact that I ate. Other examples are 816 and 817 on page 317.
### CHAPTER 5. MAIN CLAUSES AND VERBS

#### PAGE 134

The verb root may also be preceded by an incorporated instrument as described in section 4.4.

<table>
<thead>
<tr>
<th>VERB ROOT&lt;sup&gt;a&lt;/sup&gt;</th>
<th>FRS&lt;sup&gt;b&lt;/sup&gt;</th>
<th>NEG</th>
<th>SG/MUL&lt;sup&gt;d&lt;/sup&gt;</th>
<th>AFXVRB&lt;sup&gt;e&lt;/sup&gt;</th>
<th>CAUS&lt;sup&gt;g&lt;/sup&gt;</th>
<th>R/P&lt;sup&gt;h&lt;/sup&gt;</th>
<th>CAUS</th>
<th>RELOC&lt;sup&gt;i&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ra</td>
<td>-tʰɯɯ</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRBLZR&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-βₐ</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOUN ROOT</td>
<td>-nɯ</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>-βₑ</td>
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<tr>
<td>-ᵗʃₑ</td>
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<td></td>
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<tr>
<td>-ˣkʰimₑι</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>The verb root may also be preceded by an incorporated instrument as described in section 4.4.

<sup>b</sup>Texts cf. frustrative, contraexpectation

<sup>c</sup>VRBLZR verbalizer

<sup>d</sup>SG/MUL singular or multiple

<sup>e</sup>AFXVRB affixal verb

<sup>f</sup>do after going

<sup>g</sup>CAUS causative

<sup>h</sup>R/P reflexive or passive

<sup>i</sup>RELOC relocation

---

**Figure 5.1 The verb stem**
5.6 The structure of the verb

Verb stems are formed from verb roots by the addition of derivational affixes as indicated in figure 5.1, page 134.

Two types of verbal words are formed from verb stems. First, nonimperative verbs are formed as indicated in figure 5.2:

<table>
<thead>
<tr>
<th>VERB STEM</th>
<th>FUT</th>
<th>NEG</th>
<th>FRS</th>
<th>with a preverbal subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ʔi⁷kʰa</td>
<td>-ʔi</td>
<td>-nɛ (after -tʰɯ)</td>
<td>ANIM. CLS.⁴ (:-pɛ,...)</td>
<td></td>
</tr>
<tr>
<td>be</td>
<td>-tʰɯ</td>
<td>-ɾa</td>
<td>INAN. CLS.⁵ (-nɛ,...)</td>
<td></td>
</tr>
</tbody>
</table>

with a classifier subject

Figure 5.2 The verb (nonimperative)

When heading an adverbial clause, verbs so formed may be followed by an adverbial suffix, and when heading a relative clause or nominal complement, they may be followed by a case marker; see figure 16.1, page 357. In all cases clitics may follow.

Second, imperative verbs are formed as indicated in figure 5.3.

<table>
<thead>
<tr>
<th>PERSON</th>
<th>VERB STEM</th>
<th>ADVERB</th>
<th>NEG</th>
<th>CLITIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>mɛ-</td>
<td>-hɯ⁴</td>
<td>-hɯ⁵</td>
<td>-nɛ</td>
<td>-ɛne</td>
</tr>
<tr>
<td>ti-</td>
<td>-kʰo</td>
<td>-ti</td>
<td>-nɛ</td>
<td>-ɛne</td>
</tr>
</tbody>
</table>

Figure 5.3 The imperative verb

There are distinct types of verbs, as discussed in section 5.7.

Tense (locating an event relative to the time of speaking) is discussed in section 5.9.

Aspect (the nature of the event’s unfolding in time, i.e., whether it is presented as occurring in an instant, as ongoing, as a persistent state,...) is inherent in verb stems. Verb roots are frequently followed by a “single versus multiple action” suffix that—to some extent—defines the verb’s aspect; see section 5.7.2.
Mood (how the hearer should take the content of the utterance relative to his beliefs or behavior) is indicated in various ways. Imperatives are discussed in chapter 14. Interrogatives are discussed in chapter 15.

Evidentiality (i.e., the basis on which one knows the information being communicated) is indicated by clitics; see section 11.1.

Verbs can be modified by adverbs, which may be verbal suffixes (5.12.1) or independent words (5.12.2).

5.7 Verbal categories

Verbs express actions, events, or states. They may be transitive, intransitive, or stative (5.7.1). Some verbs are free, that is, they can occur without a following suffix. Others are bound, requiring a suffix that indicates whether the verb is transitive, intransitive, or stative and whether it is “singular” or “multiple” (5.7.2).

5.7.1 Transitive, intransitive, stative

The principle subclasses of verbs are: transitive, intransitive, and stative.

In 240 the verb àˣtʰúmɨ̀ is transitive, the dog being the direct object. The direct object need not be explicit. For example, when it is clear that one is speaking about a dog, one could simply say 241:

(240) Ó ájtyumɨ́ oohííbyeke.
    ó áˣtʰúmɨ́-ʔìòːʔí-ːpʲɛ̀-kʰɛ̀ ‘I saw the dog.’
    I saw-(t) dog-(SgM)-objAn

(241) ó áˣtʰúmɨ́-ʔì (Ó ájtyumɨ́hi) ‘I saw (it).’
    I see-(t)

Intransitive verbs are illustrated in 242 and 243:

(242) ó ákʰɯ̀-ːβɛ́-ʔì (Ó ácuuvéhi.) ‘I sat down.’
    I sit.down-sIn-(t)

(243) Ó dsɨɨné (tahjyávu).
    ó tsɨːnɛ́-ʔì (tʰaˀhʲá-βɯ̀) ‘I ran (to my house).’
    I run-(t) my ⟨shelter⟩-goal

The verb aβɛ́ ‘to hurt’ may function both as transitive, as in 244a, or as intransitive, as in 244b. In 244c the intransitive verb is made transitive
5.7. VERBAL CATEGORIES

by the addition of the causative suffix. Without the causative, such verbs are used as transitive (as in 244a) only if the subject is inanimate.

(244) a. ö-kʰɛ̀ ąβʲɛ-ʔì (Oke avyéne.) ‘It hurts me.’
   I-obj Anhurt-⟨ø⟩

   b. ö ąβʲɛ-ʔì (O avyéhi.) ‘I hurt.’
   I hurt-⟨t⟩

   c. ö-kʰɛ̀ ąβʲɛ-tsʰò-pɛ̀ (Oke avyétsoóbe.) ‘He hurt me.’
   I-obj Anhurt-caus-⟨SgM⟩

Some verbs are inherently stative, indicating a condition or quality, as in 245:

(245) óʧʰɛ̀mɛ́-ʔì (Ó cheméhi.) ‘I am sick.’
   ó ąβʲɛ́-ʔì (Ó avyéhi.) ‘I am in pain.’
   ó imí-ʔì (Ó imíhi.) ‘I am good/healthy.’

Inherently active verbs can be made stative—to indicate the result of some action—by the addition of a suffix, as in 246:

(246) ó ákʰɯ̀-ũúkʰùmù-ʔì (Ó ácuúcunúhi) ‘I am seated’.
   I sit-sSt-⟨t⟩

Participles can be formed from this (second) type of stative verb by prefixing tʰɛ- ‘prtc’, followed by either the single action or multiple action suffix. The participles so formed indicate that what they modify is in a state that resulted from the action of the verb. For example, the participle in 247 is formed from the infinitive ákʰɯ̀-ˣkʰátʲʰɛ̀ (sit-mSt) ‘seat’:

(247) ́O ájtyumì mìamúnáakye téácujcátye.
   ó átʰtʰûmí mìamúnáà-kʰɛ̀ tʰɛ-ákʰɯ̀-ˣkʰátʲʰɛ̀
   I see-⟨t⟩ people-obj An prtc-sit-mSt
   ‘I see people seated.’

The verbsʧʰɛmɛ ‘to be sick’, aβʲɛ ‘to hurt’ and imí ‘to be good’ do not form participles, presumably because they become adjectives when they bear two high tones and are followed by an (unwritten) glottal stop.

5.7.2 Single or multiple action

Many verb stems have two forms: SINGLE ACTION verbs indicate an action performed only once or performed just a little. MULTIPLE ACTION verbs indicate that an action is performed multiple times.

To some degree the distinction is aspectual (like punctual versus iterative); in some cases it is like a single action versus an activity distributed
in a population; in some cases it is like a single event versus multiple ones.

BOUND verb roots require a suffix indicating either single or multiple action. For example, akʰɯ- ‘to sit’ may not occur by itself, but occurs as àkʰúː-βɛ̀ (single action) or as àkʰúː-pà (multiple action). FREE roots, like pʰɛː ‘go’, tʰaː ‘come’ and maʰʧo ‘eat’ do not take a single or multiple action suffix.\(^{12}\)

The principle suffixes by which single and multiple action verbs are formed are listed in table 5.2. Generally a given root or stem will use one of the pairs listed to form the transitive forms, as well as the pairs for intransitive and stative forms.

Table 5.2 The formation of single and multiple action verbs

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>MULTIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)kʰáro (-jcáro)</td>
<td>(-)kʰo (-jco)</td>
</tr>
<tr>
<td>(-)hákʰo (-hjáco)</td>
<td>(-)kʰo (-hco)</td>
</tr>
<tr>
<td>(-)ro (-ro)</td>
<td>(-)nu (-nu)</td>
</tr>
<tr>
<td>(-)úkʰu (-úcu)</td>
<td>(-)kʰu (-jcu)</td>
</tr>
<tr>
<td>(-)ákʰo (-ático)</td>
<td>(-)jco (-jco)</td>
</tr>
<tr>
<td>(-)hʰúkʰu (-hjyúcu)</td>
<td>(-)kʰo (-hcyo \sim -cyo)</td>
</tr>
<tr>
<td>(-)kʰu (-cu)</td>
<td>(-)kʰu (-cunu)(^{b})</td>
</tr>
<tr>
<td>(-)kʰu (-cu)</td>
<td>(-)kʰu (-cu)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTRANSITIVE</th>
<th>MULTIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)βɛ (-:ve)</td>
<td>(-)pa (-)ba(^{d})</td>
</tr>
<tr>
<td>(-)úkʰu (-ucunu)</td>
<td>(-)kʰu (-cunu)</td>
</tr>
</tbody>
</table>

\(^{a}\)For example iʧaː-jo ‘strike-sStr’; compare iʧo ‘to cut down (mTr)’.

\(^{b}\)For example, átu-kʰu ‘drink-sStr’; compare átu-kʰu ‘drink-mTr’.

\(^{c}\)For example mɛˀtɯ-kʰ ‘drink-sStr’; compare mɛˀtɯ ‘drink (mTr)’.

\(^{d}\)The first syllable of the verb to which -pa ‘m ln’ is suffixed is made heavy by either vowel length, preaspiration, or a glottal stop as in 248b; see section 5.7.3.

Of the various possibilities for transitives, only \(-\)kʰu ‘sStr’ and \(-\)kʰu ‘mTr’ are used with free verbs; the others are used only with bound verb roots. The intransitives with \(-\)βɛ ‘sIn’ and -pa ‘mIn’ are formed only from bound verb roots, while \(-\)kʰu ‘mIn’ is used with free verb roots. The statives with \(-\)ukʰ \(-ucunu) ‘sSt’ and \(-\)kʰatʰɛ ‘mSt’ are only formed from bound verb roots.

\(^{12}\)It may be that bound roots lack inherent aspect and thus require a single or multiple action suffix to provide it, whereas free roots have inherent aspect that cannot be overridden by a single or multiple action suffix.
5.7. VERBAL CATEGORIES

Some multiple action verbs require a plural subject. This depends on the nature of the action it indicates: if one person could perform the action indicated by the verb, then the subject may be singular or plural.

For many verbs, the difference between singular and multiple forms is made by both adding a suffix and changing the root. For example, note the glottal stop added to the first syllable of the verb of 248b:

(248) a. Áánu ácuuvéhi.  
á:nù ákʰù-ːβɛ́-ʔì ‘This one sat down.’  
  this.SgM sit-sIn-(t)

b. Áátye áhcubáhi.  
áː-tʲʰɛ̀ áˀkʰɯ́-pá-ʔì ‘Those sat down all at once.’  
  that-⟨AnPl⟩ sit-mIn-⟨t⟩

It is also possible to say 249:

(249) áː-tʲʰɛ̀ ákʰɯ́-ːβɛ́-ʔì (Áátye ácuuvéhi.) ‘Those sat down.’  
  that-⟨AnPl⟩ sit-sIn-⟨t⟩

Unlike 248b, example 249 does not indicate how they sat down, i.e., individually or all together. The singular versus multiple action distinction does not correspond generally to individual versus collective action, but to one instance of an action versus multiple instances of that action.

Some verbs are inherently multiple action, with the single action form marked by the addition of -kʰɯ’s Tr’. For example, as shown in 250a, me’tó ‘swallow’ indicates multiple action (or to put it another way, Bora ‘swallow’ is inherently iterative). The corresponding single action form in 250b is formed by the addition of -kʰɯ ‘single action’:

(250) a. Ó mehdó tabójííne.  
  b. Ó mehdúcú taabójí.  
    a. ó mɛ́tó-ʔì tʰàpó-hf-ːnɛ̀ ‘I swallow pills.’  
      I swallow-(mTr)-⟨t⟩ cure-⟨disk⟩-pl
    b. ó mezbollah-kʰù-ʔì tʰàːpó-hì ‘I swallow a pill’  
      I swallow-sTr-⟨t⟩ cure-⟨disk⟩ (in a single gulp).’

With some verbs the single action form indicates doing the action to a small degree, e.g., átú-kʰù ‘to drink a little’ and mъt dém-kʰù ‘to eat a small amount’:

13 Note that the verb root’s final vowel becomes /u/ before /u/.
(251) Ovíí ó majchócú ɨfcuí mepéékií.

Ôbíː ó maŋh ó-kʰúú iːkʰúú mɛˑ-kʰíí.
wait I eat-sTR quick SAP go-pur

‘Wait, I’ll eat just a little so we can go right away.’

For other verbs, the simple form indicates a single action and the multiple action form is derived from it by the addition of -kʰunú ‘multiple action’ (mTr or mLn). For example, in 252a tɕːne ‘run’ is a single action verb. The multiple action form bearing -kʰunú ‘mLn’ is seen in 252b:

(252) a. Áátye dsɨɨné mújcojúvu.

áː-tʰɛ̀ ⟨AnPl⟩ a. tɕːné-ˀ run(sIn)-⟨t⟩ mɯ́ˣkʰòhɯ́-βɯ
that-⟨AnPl⟩ b. tɕːné-kʰunú-ˀ run-mLn-⟨t⟩ port-goal

a. ‘They run to the port (all together, as a single group).’
 b. ‘They run to the port (one after the other, not as a group).’

5.7.3 Marking multiple action with intransitive verbs

As seen in table 5.2 above, the major pattern for indicating singular versus multiple with intransitive verbs is that the singular form bears -Lːβɛ while the corresponding multiple form bears -Lːpa.

In addition to the suffix, the first syllable of the multiple form is made heavy. Tables 5.3–5.7 document the various possibilities for making the first syllable heavy.

When the verb begins (C)V.CV, i.e., the first syllable is open and the second syllable begins with a consonant, then the first syllable of the multiple form is closed with a glottal stop. See table 5.3.

Table 5.3 Making the first syllable heavy with a glottal stop

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>áβóːβɛ̀</td>
<td>avóóve</td>
<td>‘cover oneself’</td>
</tr>
<tr>
<td>páhɯ́ːβɛ̀</td>
<td>bájuívye</td>
<td>‘turn one’s back on’</td>
</tr>
<tr>
<td>kʰámáːβɛ̀</td>
<td>camááve</td>
<td>‘put together’</td>
</tr>
<tr>
<td>kʰarúːβɛ̀</td>
<td>carúúve</td>
<td>‘look up’</td>
</tr>
</tbody>
</table>

continued next page
### 5.7. VERBAL CATEGORIES

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>( t^{\text{h}}{\text{a}}h{\text{a}}:\text{b}{\text{e}} )</td>
<td>( t^{\text{h}}{\text{a}}\text{h} \text{á}p\text{a} )</td>
<td>chajaave</td>
</tr>
<tr>
<td>( k^{\text{h}}{\text{o}}\text{m}{\text{i}}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}{\text{o}}\text{m} \text{á} \text{p}{\text{a}} )</td>
<td>comívye</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{ù}h\text{ú}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{ù}h\text{ú} \text{p}{\text{a}} )</td>
<td>cujúuve</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{á}f^{\text{h}}\text{i}j:\text{a}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{á}f^{\text{h}}\text{i}j\text{á}p{\text{a}} )</td>
<td>cáchiyáave</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{á}k^{\text{h}}\text{ò}r\text{ó}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{á}k^{\text{h}}\text{ò}r\text{ó} \text{p}{\text{a}} )</td>
<td>cácoróóve</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{á}p^{\text{h}}\text{át}^{\text{h}}\text{ú}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{á}p^{\text{h}}\text{át}^{\text{h}}\text{ú} \text{p}{\text{a}} )</td>
<td>cápatyúúve</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{á}t^{\text{h}}\text{ős}^{\text{h}}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{á}t^{\text{h}}\text{ős}^{\text{h}} \text{p}{\text{a}} )</td>
<td>cátsotsósóóve</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{á}β{\text{h}}{\text{á}}h{\text{a}}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{á}β{\text{h}}{\text{á}}h{\text{á}} \text{p}{\text{a}} )</td>
<td>cávająáave</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{án}āj{\text{a}}h{\text{i}}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{án}āj{\text{a}}h{\text{i}} \text{p}{\text{a}} )</td>
<td>cáñányajíéve</td>
</tr>
<tr>
<td>( t{\text{ó}}t{\text{í}}:\text{b}{\text{e}} )</td>
<td>( t{\text{ó}}t{\text{í}} \text{p}{\text{a}} )</td>
<td>dòdívye</td>
</tr>
<tr>
<td>( t{\text{ú}}h\text{ú}:\text{b}{\text{e}} )</td>
<td>( t{\text{ú}}h\text{ú} \text{p}{\text{a}} )</td>
<td>dujúúve</td>
</tr>
<tr>
<td>( t{\text{ó}}p^{\text{h}}\text{á}:\text{b}{\text{e}} )</td>
<td>( t{\text{ó}}p^{\text{h}}\text{á} \text{p}{\text{a}} )</td>
<td>dópoáóave</td>
</tr>
<tr>
<td>( t{\text{ó}}kp{\text{á}}{\text{r}}{\text{á}}h{\text{i}}:\text{b}{\text{e}} )</td>
<td>( t{\text{ó}}kp{\text{á}}{\text{r}}{\text{á}}h{\text{i}} \text{p}{\text{a}} )</td>
<td>dòwárajíéve</td>
</tr>
<tr>
<td>( ír{\text{ó}}:\text{b}{\text{e}} )</td>
<td>( ír{\text{ó}} \text{p}{\text{a}} )</td>
<td>íròvé</td>
</tr>
<tr>
<td>( l{\text{kp}}{\text{á}}:\text{b}{\text{e}} )</td>
<td>( l{\text{kp}}{\text{á}} \text{p}{\text{a}} )</td>
<td>iwááve</td>
</tr>
<tr>
<td>( k^{\text{h}}\text{ë}r{\text{ó}}:\text{b}{\text{e}} )</td>
<td>( k^{\text{h}}\text{ë}r{\text{ó}} \text{p}{\text{a}} )</td>
<td>keróóve</td>
</tr>
<tr>
<td>( m{\text{i}}h^{\text{h}}{\text{o}}:\text{b}{\text{e}} )</td>
<td>( m{\text{i}}h^{\text{h}}{\text{o}} \text{p}{\text{a}} )</td>
<td>mijyóóve</td>
</tr>
<tr>
<td>( m{\text{ò}}{\text{j}}{\text{í}}:\text{b}{\text{e}} )</td>
<td>( m{\text{ò}}{\text{j}}{\text{í}} \text{p}{\text{a}} )</td>
<td>moyíívye</td>
</tr>
<tr>
<td>( n{\text{è}r}{\text{i}}:\text{b}{\text{e}} )</td>
<td>( n{\text{è}r} \text{í} \text{p}{\text{a}} )</td>
<td>neríívye</td>
</tr>
<tr>
<td>( p^{\text{h}}{\text{à}p}{\text{è}}:\text{b}{\text{e}} )</td>
<td>( p^{\text{h}}{\text{à}p} \text{é} \text{p}{\text{a}} )</td>
<td>pabéeéve</td>
</tr>
<tr>
<td>( r{\text{ì}h{\text{á}}:\text{b}{\text{e}} )</td>
<td>( r{\text{ì}h{\text{á}} \text{p}{\text{a}} )</td>
<td>riyááve</td>
</tr>
<tr>
<td>( t^{\text{b}}{\text{ò}}h{\text{á}}:\text{b}{\text{e}} )</td>
<td>( t^{\text{b}}{\text{ò}}h{\text{á}} \text{p}{\text{a}} )</td>
<td>tojááve</td>
</tr>
</tbody>
</table>

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If the first syllable of the singular is already heavy, then the multiple form does not add ʔ. The first syllable might be heavy by being closed by ʔ, as in the examples in table 5.4:

Table 5.4 When the first syllable of the singular is closed by a glottal stop

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>tʰùhá:bè</td>
<td>tsújááve</td>
<td>‘disperse’</td>
</tr>
<tr>
<td>tʰùrú:bè</td>
<td>túréúve</td>
<td>‘fall over’</td>
</tr>
<tr>
<td>tʰákʰò́ří:bè</td>
<td>tácorí́ve</td>
<td>‘undress’</td>
</tr>
<tr>
<td>úmú:bè</td>
<td>úmú́ve</td>
<td>‘close the lips’</td>
</tr>
<tr>
<td>úkúrúúúú:bè</td>
<td>úgúruúúve</td>
<td>‘shrink’</td>
</tr>
<tr>
<td>útsʰúkʰú:bè</td>
<td>útsucúúve</td>
<td>‘get stuck between’</td>
</tr>
<tr>
<td>bίkʰó:bè</td>
<td>vicyó́ve</td>
<td>‘lie down in hammock’</td>
</tr>
<tr>
<td>bùtò:bè</td>
<td>vudó́ve</td>
<td>‘become torn apart’</td>
</tr>
<tr>
<td>kpápè:bè</td>
<td>wabééve</td>
<td>‘get entangled’</td>
</tr>
<tr>
<td>kpáhí:bè</td>
<td>wajééve</td>
<td>‘be put beside’</td>
</tr>
<tr>
<td>kpákʰò́ří:bè</td>
<td>wácorí́ve</td>
<td>‘become scraped’</td>
</tr>
<tr>
<td>kpákoó:bè</td>
<td>wágoóóve</td>
<td>‘be tossed out’</td>
</tr>
<tr>
<td>kpáríʔjó:bè</td>
<td>wáríhyóóve</td>
<td>‘become separated by space’</td>
</tr>
<tr>
<td>kpáβáhá:bè</td>
<td>wávajá́ve</td>
<td>‘become torn apart’</td>
</tr>
</tbody>
</table>
Or it might be heavy by being closed by ʰj, as the examples in table 5.5:

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kpáʰpʰjáːβɛ̀</td>
<td>wájpollááve</td>
<td>‘roll over’</td>
</tr>
<tr>
<td>kpáʰtʰjúːíːβɛ̀</td>
<td>wájtyuhúːvéve</td>
<td>‘become tightly knotted’</td>
</tr>
</tbody>
</table>

Table 5.5 When the first syllable of the singular is closed by preaspiration

The first syllable is made heavy by lengthening the vowel in two cases. First, this is done when the onset of the second syllable is /ʔ/, as in the examples in table 5.6. Second, the first syllable is made heavy by lengthening the vowel when the word begins with (C)V.V, that is, the second syllable lacks an onset, as in the examples in table 5.7.

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kpáʔɛ̀hɯ́ːβɛ̀</td>
<td>wáhejúːvéve</td>
<td>‘develop a big hole’</td>
</tr>
</tbody>
</table>

Table 5.7 Adding vowel length when the second syllable has no onset

<table>
<thead>
<tr>
<th>SINGLE ACTION</th>
<th>MULTIPLE ACTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>kpáʔɛ̀hɯ́ːβɛ̀</td>
<td>wáhejúːvéve</td>
<td>‘develop a big hole’</td>
</tr>
</tbody>
</table>

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5.8 Valence-changing suffixes

This section describes the valence-increasing suffix -ʦʰo ‘causative’ (5.8.1) and the valence-decreasing suffixes -mɛi ‘reflexive or passive’ (5.8.2) and -ˣkʰaʦʰi ‘reciprocal’ (5.8.3).

5.8.1 -tso ‘causative’

The suffix -ʦʰo ‘causative (cause or allow)’ increases its host’s valence. It makes an intransitive verb transitive, the direct object of which is the causee; see section 10.2.4. For example, the subject of the intransitive clause in 253a is the first person. This becomes the causee—the direct object—of the corresponding transitive in 253b:

(253) a. Ő dsɨɨnéhi.
   b. Oohííbyé oke dsɨ ́ ɨ ́ netsóhi.
      a. ó ʦɨ̀ːnɛ́-ʔì ‘I ran.’
      I run-⟨t⟩ (intransitive)
      b. òːʔí-ːpʲɛ́ ò-kʰɛ̀ ʦɨ́ːnɛ̀-ʦʰó-ʔì ‘The dog made me run.’
         dog-⟨SgM⟩ I-objAn run-caus-⟨t⟩ (transitive)

(254) a. Dsɨjvéébe.
   b. Díbyeke dsɨjvéťsoóbe.
      a. tsihǐβɛ̀-ːpɛ̀ ‘He died.’
         die-⟨SgM⟩ (intransitive)
      b. tí-ːpʲɛ̀-kʰɛ̀ ʦiβɛ̀-ʦʰó-ːpɛ̀ ‘He killed him.’
         that-⟨SgM⟩-objAn die-caus-⟨SgM⟩ (transitive)

When a transitive verb is made causative, its direct object is marked with -βɯ ‘goal’ and the causee is marked as the direct object, as in 255.\(^{16}\) The grammatical relations of 255 are shown in figure 5.4.

\(^{16}\)Compare example 671, page 282, (‘He showed us his ugly moral character.’) in which there are two objects, the inanimate iɲɛ́ˀni ‘ugly moral character’ and the animate mɛ-kʰɛ̀ ‘us’.

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5.8. VALENCE-CHANGING SUFFIXES

(255) Díbyedívú oke ɨ́ɨttesoóbe.
\[ \text{tí-ːpʲɛ̀-tí-βɯ́ ɨ́ːtʰɛ̀-ʦʰò} \]
that-⟨SgM⟩-anim-goal I-objAn see-cause-⟨SgM⟩

‘He showed me him (lit. He caused me to see him).’

\[ \begin{array}{cccc}
\text{EXPER} & \text{THEME} & \text{SEE} & \text{UTAH} \\
\text{AG} & \text{SU} & \text{DO} & \text{SEE} \\
\text{SU} & \text{DO} & \text{GOAL} & \text{SEE-CAUS} \\
\end{array} \]

Figure 5.4 Grammatical relations: ‘cause to see’

The grammatical relations of causatives are further discussed in section 10.3.3.

Adding -mei ‘reflexive or passive’ after -ʦʰo ‘causative’ yields only the passive interpretation in which the subject (of the whole) is the causative agent (the one who caused the action):

(256) Ɨñáhbedívú méénútsámeííbye.
\[ \text{i ɨ́ɲáˀpɛ̀-tí-βɯ́ mɛ́ːnɯ́-ʦʰá-mɛ̀í} \]
self brother-anim-goal hit-caus-r/p-

‘He provoked his brothers to beat him up.’ (lit. ‘He allowed himself to be beaten up by his brothers.’)

If we assume that (1) when a transitive verb is made causative, its direct object is marked with -βɯ ‘goal’ and the causee is marked as the direct object, and (2) reflexivization identifies the direct object with the subject, then example 256 is problematic. We assume that the agent of HIT is the subject and the patient is the direct object, as consistent with UTAH, the “uniformity of theta assignment hypothesis” (Baker 1988:46f).

• If, on the one hand, we first apply causativization and then reflexivization, as in the first diagram in figure 5.5, the order of verbal suffixes is correct but the subject of the whole is incorrectly identified as the agent of HIT.
• If, on the other hand, we apply reflexivization before causativization, as in the second diagram in figure 5.5, the verbal suffixes are incorrectly ordered. Further, the patient of HIT ends up as the direct object rather than the goal, so would incorrectly bear -kʰɛ (-ke) rather than -βɯ (-vu) (as in 256).
Neither ordering of reflexivization and causativization yields a satisfactory result. Figure 5.6 seems correct but is inconsistent with the generalization that, when transitive verbs are causativized, the subject (causee) becomes the direct object and the direct object becomes a goal.

(257) ó wāhdáhínútsámeíhi.
   ó kpâʔtáʔínú-tshá-mëí-ʔì17 ‘I caused myself to be cut.’
   I cut-caus-r/p-⟨t⟩

(258) ó táábotsámeiyé.
   ó tshá:pó-tshá-mëí-tlë ‘I am going to have myself treated.’
   I cure-caus-rp-go.do

 Likewise, when -xhatsʰi ‘reciprocal’ follows -tsʰo ‘causative’, it is understood that the referents of the subject caused each other to do the action indicated by the verb; for example:

17In many cases the causative suffix has /o/, whereas in 263 and 257 it has /a/. This reflects the fact that most speakers of the Íñeje dialect apply a rule whereby -tsʰo becomes -tshᵃ before -mëí.
5.8. VALENCE-CHANGING SUFFIXES

(259) Tájtsɨɨménemútsí táátsójcatsíhi.
\[tʰá_t^\text{ divisive} i\text{-}mɛ́nɛ̀-mɯ́ʦʰítʰáː-ʦʰó-ˣkʰàʦʰí-ʔì\]
my child-⟨DuM⟩ cry-caus-recip-(t)
‘My children made each other cry.’

On the other hand, -ʦʰo ‘causative’ after -mɛ́i ‘reflexive or passive’ yields only the reflexive interpretation in which the subject is understood as making the causee do the action to himself; for example:

(260) Oke wáhdáhɨ númeíchoóbe.
\[ò-kʰɛ̀ kpáˀtáʔɨ́-nɯ́-mɛ̀í-ʧʰò\]
I-objAncut-mTr-r ⟨SgM⟩
\[\begin{align*}
a. \quad & \text{‘He made me cut myself.’} \\
b. \quad & \text{‘He made someone cut me.’} \\
\end{align*}\]

The changes in grammatical relations can be understood as in figure 5.7:

\[
\begin{array}{c|c|c|c}
\text{AG} & \text{PAT} & \text{CUT} & \text{UTAH} \\
\hline
\text{SU} & \text{DO} & \text{CUT} & \text{REFLEXIVE/PASSIVE} \\
\text{AG} & \text{SU} & \text{CUT-R/P} & \text{CAUSE} \\
\text{SU} & \text{DO} & \text{CUT-R/P-CAUSE} & \\
\end{array}
\]

Figure 5.7 Grammatical relations: ‘cause to cut oneself’

Likewise, -ʦʰo ‘causative’ after -ˣkʰatsʰi ‘reciprocal’ indicates that the subject causes the referents of the direct object to do the action indicated by the verb to each other; for example:

(261) Múhtsikye méénújcatsíchoóbe.
\[mɯ́ˀʦʰì-kʲʰɛ̀ mɛ́ːnɪ-ˣkʰàʦʰí-ʧʰò-ːpɛ̀\]
we(DuM)-objAn hit-recip-caus-⟨SgM⟩
‘He made us (dual) hit each other.’

5.8.2 -mɛ́i ‘reflexive or passive’

When -mɛ́i ‘reflexive or passive’ is attached to a transitive verb, the combination is an intransitive verb indicating that the subject (rather than some other object) was affected by the verb’s action. The agent of that action can be understood as the subject himself, that is, “reflexively,” as in 262a, or as some other person, that is, “passively,” as in 262b:

\[\text{18} \text{In example 260 the causative suffix could also be } -ʦʰo.\]

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CHAPTER 5. MAIN CLAUSES AND VERBS

(262) Ó wáhdáhámúneí.
   ó kпа́táʔi-nú-mɛ̀í
   I cut-mTr-r/p

{a. ‘I cut myself.’
 b. ‘I have been cut (by someone).’

Whether a reflexive or a passive interpretation is appropriate requires a context. For example, without a context one would not know whether 263 referred to someone who had been assassinated or to someone who had committed suicide:

(263) Juuvá ájcyáabe tsaapi dsíjivétsáméííbye.
   húú́r-bá-rí ińkʰá-ːpə ò [tsʰá-ːpʰí tsihiβé-tsʰá-mɛ̀í ]ːpɛ̀
   road-oblIn be-⟨SgM⟩ one-⟨SgM⟩ die-caus-r/p -⟨SgM⟩

‘In the road there is a person who {was killed
 killed himself}.’

See section 5.8.1 regarding the interaction of -mɛ̀ ‘reflexive or passive’ and -tsʰo ‘causative’.

Some verbs appear to be the fusion of a root and the reflexive suffix. For example, kpaḵʰɪmʲi ‘work’ was undoubtedly kpaḵʰi-mʲi (work-r/p) but is now co-lexicalized as a single morpheme. (Note that it preserves the lexically marked tone of the reflexive suffix.) The same is true for iṅtsʰamʲi ‘think’, presumably from iṅtsʰa-mʲi (think-r/p).

5.8.3 -jcatsi ‘reciprocal’

A reciprocal verb indicates that the referents of the subject (which must be dual or plural) act on one another. Reciprocal verbs are formed by adding -ˣkʰatsʰi ‘reciprocal’ to the verb. For example, in 264 the brothers hit each other:

(264) Táñáhbemútsí méénújcatsǐhi.
   tʰá ŋáʔ-pɛ-mútsʰí méːnu-x-kʰatsʰi-ʔí
   my sib-⟨SgM⟩-⟨DuM⟩ hit-recip-(t)

‘My two brothers are hitting each other (fighting).’

(265) Muhtsi méihjyúvájcatsǐ.
   mǔtsʰí mé iʔhúβá-x-kʰatsʰi-ʔ(i)
   we(Du) SAP speak-recip-(t) to each other.’

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5.9 Tense

Bora verbs distinguish present-past versus future tense. Tense is further marked by second-position clitics, as discussed more completely below. We begin by making some comments about the unmarked present-past tense (5.9.1). We then turn to the future tense (5.9.2). Finally we describe the second position clitics (5.9.3).

5.9.1 The present-past tense

The unmarked tense of Bora verbs is present-past (realis). These do not distinguish past (prior) events from present ones, that is events happening at the time of speaking. Whether past or present is intended be inferred from context. For example, in answer to “What is your brother doing?” 266 would be understood as ‘He is working’ but in answer to “What did your brother do yesterday?” it would be understood as ‘He worked’:

(266) kpákʰímʲɛ̀í-pʲɛ̀ (Wákímyeíibye.)

{a. ‘He is working.’
b. ‘He worked.’

Of course, the time reference may be made explicit by a time adverb, such as ʰːhʲɯ̀ ‘yesterday’ in 267:

(267) Táñahbe wákímyeí íjyu.

₄ʰá ʰːhʲɯ̀ kpákʰímʲɛ̀í-ʰːhʲɯ̀ ‘My brother worked yesterday yesterday.’

5.9.2 The future tense

The future tense indicates that the action, event or state indicated by the verb will happen subsequent to the time of speaking. Future tense is marked by the addition of the future morpheme at the position indicated in figure 5.2, page 135. This morpheme has two forms, which are briefly described and illustrated here; for further discussion see appendix D, page 429, item 1110.

First, when a suffix other than -¹óʔi (t) follows, the future morpheme is -i. For example, consider 268b (in which -¹tfɛ̀ (SgF) follows the future suffix):

---

¹⁹ This morpheme and the “projected time” clitic discussed in section 5.9.3.3 may be one and the same morpheme but we treat them separately because -i ‘future’ occurs only on verbs (a distributional difference) and never has the additional syllable /ːkʃʰɛ̀/ as does the “projected time” clitic (a formal difference).

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(268) Íwajyámú \{ a. núńtyulle. \\
\{  \\
\text{a. níť́\textsuperscript{th}́́-ʧɛ̀ 'She washes/washed}
\text{wash-(SgF) her clothes'}
\text{b. níť́\textsuperscript{th}́́-í-ʧɛ̀ 'She will wash}
\text{wash-fut-(SgF) her clothes.'}
\}
\}

The tone of -i ‘future’ depends on the suffix that follows. In 268b it bears
low tone because of -\textsuperscript{L}ʧɛ (SgF), but when followed by -\textsuperscript{L}mɛ \langle AnPl \rangle, it
bears high tone: níť́\textsuperscript{th}́́-í-mɛ́ 'they will wash'. This is further illustrated
with -\textsuperscript{L}̅\textsuperscript{L}mɛ ‘negative’ in example 269b:

(269) a. Níńtyúille íwajyám. 
\quad b. Tsá dille níńtyúityú(ne) íwajyám.
\quad \{ a. níť́\textsuperscript{th}́́-í-ʧɛ̀ 'She will wash'
\text{wash-fut-(SgF) her clothes'}
\quad \text{b. níť́\textsuperscript{th}́́-í-mɛ́ 'they will wash'.}
\}

Second, when the future tense suffix is followed by -\textsuperscript{L}ʔi \langle t \rangle, the
future is indicated by -\textsuperscript{L}ː; that is, a low tone on host’s final syllable with
the lengthening of that vowel. The verb so formed generally occurs phrase
finally, so it undergoes PLTS, resulting in adjacent homorganic vowels,
the first bearing low tone, the second bearing high tone. For example,
compare the (unmarked) present-past tense with the future tense in 270a
and b, as well as in 271a and b.

(270) a. ó pʰé:-ʔi (o pééhi) ‘I go.’
\quad I go-\langle t \rangle
b. ó pʰé:-ʔi (ó peéhi) ‘I will go.’
\quad I go-fut-\langle t \rangle

(271) a. ó à:ʔiβɛ́\textsuperscript{th}-tʰɛ́-ʔi (Ó aahívetéhi.) ‘I go to visit.’
\quad I visit-go.do-\langle t \rangle
b. ó à:ʔiβɛ́\textsuperscript{th}-tʰɛ́-ʔi (Ó aahívéteéhi.) ‘I will go to visit.’
\quad I visit-go.do-fut-\langle t \rangle

The tone derivations of the verbs in 271 are given in figure 5.8. See also
examples 272–274 and 1111, page 430.
5.9. **TENSE**

Tense-marking second-position clitics

The tense may be further specified by a clitic at the end of the sentence’s first constituent: word, phrase, subordinate clause, or in some cases the first constituent of a subordinate clause. There are three such clitics: -L, -H, ‘remote past’, -(^)ne ‘recent past’, and -i(ik^h) ‘projected time’.

The recent and remote past tense clitics require a present-past verb; they do not co-occur with a verb marked for future tense. The projected time clitic may co-occur with a present-past verb (as in 285a) or a future verb (as in 284b).
5.9.3.1 -pe ‘remote past’

The clitic -pʰɛ (-pe) \(\sim\) -H ʰ ‘remote past (rem)’ indicates that the event happened a long time ago (at least some months ago). The -pʰɛ form is illustrated in 275a and 276a. The -H ʰ form (1) imposes a high tone on the preceding syllable and (2) forms an additional syllable that bears low tone, the vowel of which is the same as the preceding vowel; see examples 275b and 276b:

(275) a. Táñahbépe meenú ihjya.
    b. Táñahbéne meenú ihjya.
       a. tʰá G ɲa-ˀpɛ̀-pʰɛ̀
       b. tʰá G ɲa-ˀpɛ̀-ɛ̀
         my sib-(SgM)-rem
         mɛ̀ːnɯ́-ʔì h’à
         make-(t) self house
         ‘My brother made his house (some time ago).’

(276) a. Aanéhjápe úmívaábe.
    b. Aanéhjáa úmívaábe.
       a. à:nè-ʰá-pʰɛ̀
       b. à:nè-ʰà-a
         thm-(SgM)-nwit-rem
         úmíβà-ːpɛ̀ escape-(SgM)
         a,b. ‘Then he escaped
           (some time ago).’

The following could be single word answers to the question Who did that?:

(277) tì-ːpʲɛ́-pʰɛ̀ɛ́ (Diibyépeé.) ‘He (some time ago).’
     that-(SgM)-rem-emph

(278) òː-pʰɛ̀ (Oópe.) ‘I (some time ago)’
     I-rem

5.9.3.2 -ne \(\sim\) -hne ‘recent past’

The clitic -nɛ (-ne) \(\sim\) -H ‘recent past (rec)’ indicates that the event happened recently, as illustrated in 279–283:

(279) Táñahbéne meenú ihjya.
       tʰá G ɲa-ˀpɛ̀-nɛ̀
       mɛ:nû-ʔì iʔ h’à
       my sib-(SgM)-rec make-(t) self house
       ‘My brother recently made his house.’

(280) tì-ːpʲɛ̀-nɛ̀ mɛ:nû-ʔì (Diibyéne meenúhi.) ‘He recently
     that-(SgM)-rec make-(t) made it.’

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(281) ò-ⁿé ó mènú-u-ʔì (Ohné ó menúhi.) ‘I recently did it.’
I-rec I make-(t)

The single words of 282 and 283 could be used to answer the questions Who did that?

(282) tì-pʰé-né-x (Diibyeénej.) ‘He (recently).’
that-(SgM)-rec-voc

(283) ò-ⁿè-x (Ohnej.) ‘I (recently).’
I-rec-voc

(See section 10.9 regarding the [^x] (j) glossed ‘vocative’.)

5.9.3.3 -i ∼ -ìíkye ‘projected time (PT)’

The clitic -ì^20 (-i) ∼ -ìikk’hέ (-ìíkye) ‘projected time’ may indicate that an event is about to happen, as in 284:

(284) tʰá ìì jà-pé-i
   my sib-(SgM)-PT

\[
\begin{align*}
&\text{a. pʰé-hùkʰó:-ʔì (Táñahbéi péjucóóhi.)} \\
&\qquad \text{go-now-(t)} \\
&\text{b. pʰé-hùkʰó-ó-ʔì (Táñahbéi péjúcoóhi.)} \\
&\qquad \text{go-now-fut-(t)}
\end{align*}
\]

a. ‘My brother is about to go.’
b. ‘My brother will go soon.’

This clitic may provoke the doubling of a pronoun. For example, compare 285a and b:

(285) a. ò pʰé-hùkʰó:-ʔì (O péjucóóhi.) ‘I am going now.’
   I go-now-(t)

   b. ò-ì ò pʰé-hùkʰó:-ʔì (Ói o péjucóóhi.) ‘I am now
   I-PT I go-now-(t) about to go.’

The clitic -ì ∼ -ìikk’hέ ‘projected time’ may also indicate that the situation (or event) indicated by the verb persists despite our expectations or desires.

(286) Tsáhái dibye májchotú(ne)
   tsʰáʔá-ì ti-pʰé máxʧʰó-tʰú-(nè)
   not-PT that-(SgM) eat-neg-(n)
   ‘He has not eaten yet.’ or ‘He still has not eaten.’

This clitic often accompanies a future verb, as in 287:

---

^20See footnote 19.
(287) Diibyéi méénuúhi.
\[\text{ti-p}\text{ʰ}^{\text{h}}\text{ɛ}-\text{í}^{\text{21}} \text{m}:\text{nù-ú}-\text{ʔì} \quad \text{‘He still expects to do it.’}\]
that-(SgM)-PT do-fut-(t)

The clitic -\(i^{k'h} \text{ ‘PT’ }\) may be used for single-word replies to questions:
(288) ó(ː)-\(i^{k'h}\) (óííkye or óóííkye) ‘I (projected time).’
I-PT

(289) tsʰ\(h^{a}\)-\(a^{-i^{k'h}}\) (tsáháííkye) ‘not yet’
not-PT

5.10  Aspect

Aspect is indicated by the system of singular versus multiple action verbs and by -\(i^{xk'h} \text{ ‘imperfective, habitual’ }\).

5.10.1  Aspect and the singular versus multiple contrast

A system of verbal contrasts involving singular versus multiple action is discussed in section 5.7.2. This system implements two aspectual contrasts: active versus stative and iterative versus noniterative. Depending on the verb, the singular versus multiple contrast may also distinguish perfective versus imperfective and telic versus atelic. See section 5.7.2 for details.

5.10.2  Aspect indicated by -\(i^{xk'h} \text{ ‘habitual’ }\)

The verb \(i^{k'h} \text{ (ijcya) ‘be’ }\) has an affixal form -\(i^{xk'h} \text{ (-hijcyø) that, with some exceptions, occurs as a second-position clitic, where it frequently follows demonstrative pronouns. It indicates habitual or characteristic action, and will be glossed ‘habitual’ (hab). For example, in 290 and 291 it follows the subject phrase of a predicate complement construction indicating a characteristic of the subject:}

\[\text{tí-p}\text{ʰ}^{\text{h}}\text{ɛ}-\text{é} \quad \text{pʰěhùkʰó-ʔì} \quad \text{‘Only he is going.’}\]
that-(SgM)-only go-now-(t)

\[\text{21} \text{Note that the pronoun does not begin with a short vowel despite its being the subject. This must be due to the intervention of ‘i ‘PT’ between the pronoun and the verb. The same is true when other clitics intervene; witness:}
\]

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(290) Dííbyéhijcya majchópíwu.
\[tí-pʃɛ-ʔiʃkʰà mÀ-ʃɛpʰ-kpu ‘He is a glutton’\]
that-⟨SgM⟩-hab eat-excess-aug

(291) Dííbyéhijcya ávyeta ími.
\[tí-pʃɛ-ʔiʃkʰà aβɛkʰà ‘He is always very good.’\]
that-⟨SgM⟩-hab very good

In 292a -ʔiʃkʰa occurs on the predicate complement rather than the subject. (292b and c are given for comparison.)

(292) a. Ehdúhijcya dííbye.
   b. Ehdu íjcyaábye.
   c. Ehdu dííbye íjcya.

a. ɛ̀-ˀtɯ́-ʔiʃkʰà tí-pʃɛ ‘That’s how he is.’
   that-⟨like⟩-hab that-⟨SgM⟩

b. ɛ̀-ˀtɯ̀ íʃkʰà-ːpʃɛ ‘He is like that.’
   that-⟨like⟩ be-⟨SgM⟩

c. ɛ̀-ˀtɯ̀ [tí-pʃɛ G ɛ íʃkʰà] ‘His life (existence) is like that.’
     that-⟨like⟩ that-⟨SgM⟩ existence is like that.’

In 293 -ʔiʃkʰa occurs on the direct object, but note that the apparent main clause is really a subordinate clause (as indicated by the classifier and by the verb’s initial high tone):

(293) Okéhijcyá ditye ájcune.
\[ò-kʰɛ́ i-ʔiʃkʰà [tì-tʃɛ o Səkʰù]-nɛ \]
I-objAn-hab that-⟨t⟩ goal give -⟨∅⟩
‘They always give to me.’ (lit. ‘It is to me that they give it.’)

Quite transparently, -ʔiʃkʰa is the verb íʃkʰa ‘be’ preceded by a complement-terminating -? (the same ? that terminates predicate adjectives, as discussed in section 7.8.3). This analysis is reflected in 294:

(294) Ó pehíjcyá mújcojúvu.
\[ó pʰɛ-ʔiʃkʰà múρkʰ-βù \]
I go-PredAdj be-⟨t⟩ port-goal
‘I habitually go to the port.’

Although this analysis is undoubtedly correct for some diachronic stage or some synchronic level, there are some good reasons for considering it to be a suffix:
1. -ʔ iˣkʲʰa and the word that precedes it belong to the same tonal phrase (respecting the *LLX constraint at the boundary between them).

2. -ʔ iˣkʲʰa may suppress preaspiration in the verb to which it is suffixed. Such is the case in 295, where in each example the second instance of iˣkʲʰa ‘be’ suppresses the preaspiration of the first:

(295) méicyahjcyáhi
mé ʃkʰh-ʔ ʃkʰh-ʔi ‘we are continually being...’
SAP be-PredAdj be-(t)

3. Nothing can intervene between -ʔ and iˣkʲʰa. For example, if a subject marking proclitic occurs, it must precede the verb that -ʔ iˣkʲʰa follows, as in 296:

(296) Táiiñújɨvu o pécooca ó ávúhcúhjcyáá paíjyuváré tééhi pañétu.

For these reasons we will generally treat the combination of -ʔ and -iˣkʲʰa as a single suffix. And this is consistent with the Bora writing system, in which it is written as a suffix: -hijcyá. Other examples are given in 297 and 298:

(297) Paíjyuváré ó pehíjcyá mújcojúvu.

(298) Cóómívu ipyéécooca wákímyeihjcyáííbye.

In most of these examples the meaning is habitual; however in 1151, page 436, it seems to be more generally imperfective than specifically habitual.
5.11 Mood

Mood indicates the speaker’s attitude regarding the content of a sentence: affirming it, denying it, asking about it, ordering another to do it, and so forth. The unmarked mood is declarative. Imperatives are discussed in chapter 14, and interrogatives are discussed in chapter 15.

5.12 Adverbs

Affixal adverbs are discussed in 5.12.1 and lexical adverbs in 5.12.2.

5.12.1 Affixal adverbs

Some suffixes (or clitics) modify verbs in ways that seem adverbial (going beyond matters like tense, aspect, and argument structure). In this section we will describe two of these.

5.12.1.1 -juco (ː) ‘now’

The verbal suffix -h¿ukʰoː ‘now’ is obviously related to the clitic -h¿ukʰo ‘focus’ discussed in section 11.2.2. The difference is that the verbal suffix is a temporal pointer, translated ‘now’, ‘already’, ‘still’ or ‘yet’, whereas the clitic marks information as focal.

In some cases the event indicated by the verb to which -h¿ukʰoː is suffixed happens at the time of speaking, so is translated ‘now’. See examples 285a and b, page 153; 543, page 241; 738, page 299; and 1062, page 405.

In other cases the event indicated by the verb happened before the time of speaking, as in 299 (where -h¿ukʰoː is translated ‘already’) and the negative, as in 300 (where it is translated ‘yet’). See also 222, page 129, and 761, page 306.

(299) mágʰó-h¿ukʰoː-pè (Majchójúcoóbe.) ‘He has already eaten.’
    eat-now-(SgM)

(300) mágʰó-h¿ukʰoː-pè-hí:βà (Májchójucóóbejííva.)
    eat-now-(SgM)-neg
    ‘He has not yet eaten.’
5.12.1.2 -ro ∼ -ra ∼ -yo ∼ -ya ‘frustrative, contraexpectation’

The suffix -ro ∼ -ra ∼ -jo ∼ -ja ‘frustrative, contraexpectation,’ indicates that the action referred to by the verb does not fulfill its purpose, does not turn out well, or was done in vain. When -ʔì ⟨t⟩ follows, -rà ∼ -jà is used, as in 301 and 302:

(301) Ó májchoráhi.
   ó máˣʧʰò-ɾá-ʔì ‘I have eaten (but not satisfactorily).’
   I eat-frs-⟨t⟩

(302) Ó májchóiyáhi.
   ó máˣʧʰó-i-já-ʔì ‘I want to eat (but
   I eat-fut-frs-⟨t⟩ there is nothing to eat).’

Otherwise, that is when -ʔì ⟨t⟩ does not follow, -ɾo ∼ -jo is used, as in 303 and 304:

(303) máˣʧʰò-ɾó-mɛ̀ (Májchoróme.) ‘They eat (but want more).’
   eat-frs-⟨AnPl⟩

(304) Májchóiyóme.
   máˣʧʰó-i-jó-mɛ̀ ‘They would like to eat
   eat-fut-frs-⟨AnPl⟩ (but there isn’t anything).’

The suffix -ra ∼ -ro ‘frustrative, contraexpectation’ may also express an unfulfilled desire (somewhat like a subjunctive):

(305) Úúma o pééiyáhi.
   úː-mà ó pʰɛ́ː-i-já-ʔì ‘I would like to go with you
   you-with I go-fut-frs-⟨t⟩ (but I am not able).’

In example 306 the subject is a relative clause containing -ro ‘frustrative, contraexpectation’:

(306) Chéméroobe wákímyeítyéhi.
   tʰéme-ɾò-pè kpákʰímʰé-tʰé-ʔì
   sick-frs-⟨SgM⟩ work-go.do-⟨t⟩
   ‘Even though he was sick, he went to work.’

Section 11.2.5 has further examples with the ‘contraexpectation’ meaning. Compare the preceding example (306) with 790.
5.12.2 Lexical adverbs

Bora has few lexical adverbs but words of other categories, especially adjectives, may be used as adverbia l modifiers. (There is also a mechanism for deriving adverbs from adjectives; see section 4.3.7.) Whether lexical, derived, or a word of another category, an “adverbs” may indicate manner, time, place, duration, distance, quantity, or reason, (among other possibilities), as now illustrated.

An adverb may indicate how an action is carried out:

(307) ímí lpákʰimíːpː (Ímí wákímyéíbye.) ‘He works well.’
  good work-⟨SgM⟩

(308) ɨːkʰɯ́ì ʦʰàːpɛ̀ (Ícúi tsaábe.) ‘He came quickly.’
  quick come-⟨SgM⟩

(309) ɨːkʰɯ́ì mè ȃtò (Ícúi meáhdo.) ‘Hurry and pay.’
  quick SAP pay

An adverb may indicate when the event took place:

(310) Péjcore eene méénúiíbye.
  pʰɛ́ːkʰòɾɛ̀ ɛ̀ː-nɛ̀ mɛ́ːnɯ́-ì-ːpʲɛ̀ ‘He will make that (me-
  tomorrow that-⟨ø⟩ make-fut-⟨SgM⟩ dial) thing tomorrow.’

Time adverbs may be restricted as to the tense with which they co-occur. For example, ɨːhʲɯ́-ihʲɯ̀ ‘yesterday’ may not co-occur with the future (311b) and pʰɛ́ːkʰɔ̀rò ‘tomorrow’ may not co-occur with the present-past (311d), as shown in 311:

(311) ɨːhʲɯ́-ihʲɯ̀ ò I
  yesterday I

\[
\begin{align*}
\text{pʰɛ́ː} & \quad \text{go-(t)} \\
pʰɛ́ː & \quad \text{go-fut-(t)} \\
*pʰɛ́ː & \quad \text{go-(t)}
\end{align*}
\]

Ijyúijyu o \{ a. péé ‘I went’ \\
  b. *péé ‘yesterday.’

(311) pʰɛ́ːkʰɔ̀rò ò I
tomorrow I

\[
\begin{align*}
\text{pʰɛ́ː} & \quad \text{go-(t)} \\
*pʰɛ́ː & \quad \text{go-(t)}
\end{align*}
\]

Péjcoro ó \{ c. *péé ‘I will go’ \\
  d. péé ‘tomorrow.’

An adverb may indicate how long the event persisted, as in 312:

(312) Tsúúcaja íjcyabe aáhi.
  tsʰúːkʰahà ɾʲkʰàːpɛ̀ ȃtì ‘He was at home a long time.’
  long.time be-⟨SgM⟩ home

An adverb may indicate where the event took place, as in 313:

\[\text{pʰɛ́ːkʰɔ̀rò ‘tomorrow’ may derive from pʰɛ́kʰɔ ‘night’ and -ɾɛ ‘only’}.\]
(313) Tsá dibye téhulle íjcyatú.

\[
\text{ʦʰ}^\text{H} \text{aˀtì-pʲɛ̀ tʰɛ́-ʔɯ̀ʧɛ̀ íˣkʲʰà-tʰɯ́} \quad \text{‘He is not there.’}
\]

not that-(SgM) that-(place) be-neg

An adverb may indicate how far from the place of speaking the event takes place:

(314) Tsíhulle wákímyeííbye.

\[
\text{ʦʰí-ʔɯ̀ʧɛ̀ kpákʰímɛ́í-ːpʲɛ́} \quad \text{‘He is working far off.’}
\]

other-(yonder) work-(SgM)

An adverb may indicate how many times the event happened:

(315) Tsáijyúré peebe téhullévu.

\[
\text{ʦʰá-ìhʲɯ́-ɾɛ́ pʰɛ̀-ːpɛ̀ tʰɛ́-ʔɯ̀ʧɛ́-βɯ́} \quad \text{‘He went over there only once.’}
\]

one-time-only go-(SgM) that-yonder-goal

An adverb may indicate why something happened:

(316) Téénéllii tsá tsɨ́ ɨ́ mene májchotú.

\[
\text{tʰɛ́ː-nɛ́-ʧìː} \quad \text{ʦʰ}^\text{H} \text{aˀʦʰɨ́ːmɛ́ nɛ̀máˣʧʰò-tʰɯ́} \quad \text{‘For that reason the child does not eat.’}
\]

that-(ø)-motive not child eat-neg

An adverb may be interrogative, asking about an event’s manner, time, place, reason, and so forth. For example, in 317 the adverb asks about the time:

(317) ¿Múijyú tsááiíbye díícyáánií?

\[
\text{mɯ́ìhʲɯ́ tˢʰáː-ì-ːpʲɛ̀ tíː} \quad \text{户口 kʰáːnìí} \quad \text{‘When does your father come?’}
\]

when come-fut-(SgM) your father

The degree adverb áβʲɛ̀tʰà ‘very (much)’ may modify a verb, an adverb, an adjective or a noun. In 318 it modifies the verb, in 319 it modifies the adjective imi ‘good’ used as an adverb, in 320 it modifies the adjective imi ‘good’ used as a predicate, and in 321 it modifies the noun iáːpɛ̀ ‘animal’.

(318) áβʲɛ̀tʰà kpákʰímɛ́í-ːpʲɛ́ (Ávyeta wákímeííbye.) ‘He works very.much work-(SgM) hard.’

(319) áβʲɛ̀tʰà ímí’ kpákʰímɛ́í-ːpʲɛ́ (Ávyeta ímí wákímeííbye.) ‘He works very.much good work-(SgM) very.well.’

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(320) áβʲɛ́tʰá ímíˀ tìː-pʲɛ̀ (Ávyeta ímí diíbye.) ‘He (is) very.much good that-(SgM) very good.’

(321) áβʲɛ́tʰá íá-ːpɛ̀ (Ávyétá iáábe.) ‘He (is) a brute.’
very.much animal-(SgM)

In 322 áβʲɛ́tʰá ‘very (much)’ works together with -hɯkʰo ‘focus’ to indicate the sentence’s veracity. Both modify the predicate, which is the noun tìː-pʲɛ̀ ‘he’:

(322) Ávyeta diíbýjuc ó. 
áβʲɛ́tʰá tìː-pʲɛ̀-hɯ̀kʰò ‘It is really he.’
very.much that-(SgM)-focus

Onomatopoeic expressions can also be used to modify verbs, as in 323, and verbs may be reduplicated to indicate frequency or repetition, as in 324:

(323) Ávyeta ‘ejéhéjé’ ó úllehijcyáhi. 
áβʲɛ́tʰá ɛ̀hɛ́ˀ-ɛ́hɛ́ˀ ó útʃɛ̀-ʔi f⁴kʰá-ʔí ‘I am walking, coughing a lot.’
very.much cough–cough I walk-PredAdj be-(t)

(324) ‘Machóhmáchó’ diíbye. 
màʧʰóʔ-маʧʰóʔ tìː-pʲɛ̀ ‘He eats frequently.’
eat–eat that-(SgM)
Chapter 6

Classifiers

Perhaps the most distinctive and structurally remarkable feature of Bora grammar is its classifiers, suffixes that refer to classes of beings, objects, patterns, configurations, and so forth. A simple indication of their importance is that, in the texts in appendix G, four out of every ten words has a classifier!

The classifiers are discussed in three sections: their form, morphosyntactic distribution, and tone in 6.1, their use in 6.2, and their categorial and structural status in 6.3. A fairly complete list of classifiers is given in appendix E.

6.1 Classifiers: Form, distribution, tone

General facts about animate and inanimate classifiers are presented in section 6.1.1. We then discuss classifiers that are derived from verb roots in 6.1.2, and classifiers that are cognate with incorporated instruments in 6.1.3.

6.1.1 General facts about animate and inanimate classifiers

6.1.1.1 Animate classifiers

With few exceptions, animate classifiers refer to classes of persons and animals. The criterion for animacy may be the capacity for auto-locomotion,
i.e., the ability to move without an apparent external force. For example, the sun and a clock (or watch) are animate, while trees are inanimate.

The animate classifiers distinguish number (singular, dual, plural) and gender (masculine, feminine). There are three classes, given in table 6.1:¹

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SgM</td>
<td>-(\text{L} \circ p^h \text{e} (-:be))</td>
<td>-xp^h i (-jpi)</td>
<td>-xp^h i-(\text{L} \circ \text{e}) (-jpille)</td>
</tr>
<tr>
<td>SgF</td>
<td>-t(\text{f} \circ \text{e} (-l\text{e}))</td>
<td>-xp^h i-(\text{L} \circ \text{e}) (-jpi)</td>
<td>-xp^h i-(\text{L} \circ \text{e}) (-jpi)</td>
</tr>
<tr>
<td>DuM</td>
<td>-m(\text{u} \circ t^h \text{i} (-\text{m} \text{\text{u}tsi}))</td>
<td>-t(\text{(x)h} \circ \text{e} -t^s \circ \text{e} (-j\text{t} \text{\text{e}tsi}))</td>
<td>-t(\text{(x)h} \circ \text{e} -p^h \circ \text{e} (-j\text{t} \text{\text{e}pi}))</td>
</tr>
<tr>
<td>DuF</td>
<td>-m(\text{u} \circ p^h i (-\text{m} \text{\text{u}pi}))</td>
<td>-t(\text{(x)h} \circ \text{e} -p^h \circ \text{e} (-j\text{t} \text{\text{e}pi}))</td>
<td>-t(\text{(x)h} \circ \text{e} (-j\text{te}))</td>
</tr>
<tr>
<td>AnPl</td>
<td>-(\text{L} \circ \text{m} \circ \text{e} (-\text{me}))</td>
<td>-t(\text{(x)h} \circ \text{e} (-j\text{te}))</td>
<td>-(\text{m} \circ \text{e} (-\text{me}))</td>
</tr>
</tbody>
</table>

1. By “postverbal subject” we mean the classifiers affixed to the verb as in example 222, page 129. (We do not mean a free noun phrase following a verb, in apposition to a classifier subject.)
2. With the exception of -\(\text{L} \circ \text{m} \circ \text{e} (-\text{me})\), these morphemes dock a low tone according to the rule for classifiers given in section 6.1.4, page 171. The low tone falls on the host’s final syllable except when a bisyllabic classifier follows a monosyllabic host, in which case the low tone docks on the classifier’s first syllable.
3. It is tempting to equate -\(\text{L} \circ \text{m} \circ \text{e} (-\text{me})\) with ‘he’ (third person singular) but its use is not restricted to the third person. For example, in 1046, page 399, it refers to a first person and in 852, page 329, it may refer to a second person.²
4. In addition to the classifiers of table 6.1, there are a few others that are animate:
   - t\(\text{s}^h \circ \text{i} ‘baby’\), e.g., t\(\text{h} \circ \text{e} -t^s \circ \text{h} \circ \text{i} ‘that baby’\);
   - o:\(\text{r} \circ \text{i} ‘jaguar’\), e.g., t\(\text{h} \circ \text{e} -\text{o} \circ \text{r} \circ \text{i} ‘that jaguar (or dog)’;
   - k\(\text{h} \circ \text{e} -\text{m} \circ \text{e} ‘old man’\), e.g., t\(\text{h} \circ \text{e} -\text{k} \circ \text{h} \circ \text{e} -\text{m} \circ \text{e} ‘that old man’;
   - k\(\text{h} \circ \text{o ‘squirrel’\), e.g., n\(\text{\text{e}p}^h \circ \text{l} \circ \text{k} \circ \text{h} \circ \text{o ‘squirrel’;
and perhaps a few other animals. All other classifiers are inanimate.

¹Table 7.1 of (Seifart 2002:97) is very similar to table 6.1. Clearly, Seifart followed the 2000 draft of this grammar rather than table 9 of (Thiesen 1996:102).
²We hedge because example 852 may mean something like ‘You are going like someone who has not eaten?!’ If this is the case, then -\(\text{L} \circ \text{m} \circ \text{e} (-\text{me})\) does not refer directly to the addressee.
The classifiers of column 1 of table 6.1 are used to mark postverbal subjects; for example:

(325) \( t^h:\text{ápò-}:p\dot{e} \) (tááboóbe) 'He cures.'
\( t^h:\text{ápò-}:t\dot{e} \) (táábolle) 'She cures.'
\( t^h:\text{ápò-}m\dot{u}t\dot{h}i \) (táábomútsi) 'They (DuM) cure.'
\( t^h:\text{ápò-}m\dot{u}p\dot{h}i \) (táábomúpi) 'They (DuF) cure.'
\( t^h:\text{àpò-}m\dot{ê} \) (taabóme) 'They (AnPl) cure.'

(326) a. ímípà-ːβʲɛ́-mê (Ímíbaavyéme.) 'They are fixed.'
  fix-sIn-⟨AnPl⟩
b.ʧʰɛ̀mɛ́-mê (Cheméme.) 'They are sick.'
  be.sick-⟨AnPl⟩

The classifiers of column 1 are also used to head relative clauses, as illustrated by -ːpɛ ⟨SgM⟩ in 327 and -Lɔɔmɛ ⟨AnPl⟩ in 328. (Note: the verb of the relative clause bears the initial high tone characteristic of subordinate clauses, represented here by s.) See also example 331a below.

(327) O úwááboobe diityéké o nééhiíi...
  [òi ṭukpáːpò ]-ːpê ti-ːtʰɛ́-kʰê ò nêː-ʔìí...
  I teach -⟨SgM⟩ that-⟨AnPl⟩-objAn I say-(t)
'I who teach (them) say to them…'

(328) a. ñimipà-ːβʲɛ́-mê (Ímibáávyéme)
b.ʧʰɛ̀mɛ́-mê (Cheméme)

a. ‘the ones (AnPl) that are fixed’
b. ‘the ones (AnPl) who are sick’

The classifiers of column 2 of table 6.1 are used with nonfinite verbs. Compare \( t^h:\text{àpò} \) ‘treat, medicine’ with the words in 329 (in which the nominalization low tone is represented with N):

(329) a. \( t^N:\text{ápò-}:p\dot{e} \) (taabóóbe) 'doctor (SgM)'
b. \( t^N:\text{ápò-t\dot{ê} } \) (taabólle) 'doctor (SgF)'
c. \( t^N:\text{ápò-tʰɛ́-tʰ}h \text{ş}i \) (taabójtétsi) 'doctors (DuM)'
d. \( t^N:\text{ápò-tʰɛ́-pʰ}h \) (taabójtépi) 'doctors (DuF)'
e. \( t^N:\text{ápò-tʰɛ́ } \) (taabójte) 'doctors'

In 329 the classifier’s low tone is blocked by the nonfinite low tone on the host’s first syllable. By contrast, in 330, where the nonfinite tone is on the antepenult, the classifier’s low tone docks on the host’s final syllable:
(330) ímipáŋtʰhó-ˣtʰɛ̀ (ímibájchojte) ‘fixers’
fixing-⟨AnPl⟩
ũkpaːpò-ˣtʰɛ̀ (uwáábojte) ‘teachers’
teaching-⟨AnPl⟩

In 331a, -ᵗʰɛ ⟨AnPl⟩ heads a relative clause. The initial syllable of the verb of this relative clause bears the high tone characteristic of subordinate clauses (S). By contrast, in 331b -ᵗʰɛ follows a nonfinite verb, which bears the nonfinite low tone (N). (This falls on the initial syllable because the verb is bisyllabic.)

(331) a. Ámúhakye o wájyumej, méucááve.
     b. Méucááve, táwajyújtej.

a. [ámuˈʔà-kʲʰɛ̀ ò kpǎh¹ɯu]-mɛ̀-ˣ, mé ũkʰáːβɛ̀ (relative
     youPl-objAn I esteem-⟨AnPl⟩-voc SAP enter clause)
b. mɛ́ ũkʰáːβɛ̀, tʰákpₕᵃ-ˣtʰɛ̀-ˣ (nonfinite verb)
     SAP enter my esteem-⟨AnPl⟩-voc

a. ‘You (pl) whom I esteem, enter!’
b. ‘Enter, my esteemed ones!’

The classifiers of column 2 are also used with bound adjectival stems to form animate plural pronouns, as described in section 7.8.2. See example 332:

(332) a. ti-ᵗʰɛ̀ (that-⟨AnPl⟩ diťye) ‘they’
b. í-ᵗʰɛ̀ (self-⟨AnPl⟩ jtyeé) ‘these/those (AnPl)’
c. àː-ᵗʰɛ̀ (tm-⟨AnPl⟩ aátye) ‘those (afore-
     mentioned AnPl)’
d. kpₕ³-ᵗʰɛ̀ (which ⟨AnPl⟩ caatyé) ‘which (AnPl)’
e. tʰàˀɲɛ́-ˣtʰɛ̀ (mine-⟨AnPl⟩ tahnɛ́jte) ‘my (people or animals)’
f. tˢʰà-ᵗʰɛ̀ (some-⟨AnPl⟩ tsãáte) ‘some (people or animals)’

And they are used with (bound or free) adjectives and nouns, as illustrated with -ᵗʰɛ ⟨AnPl⟩ in the following:

ímiá-ᵗʰɛ̀ (ímíájte) ‘kind people, good people or animals’ from ímià ‘truth, goodness’
í-ᵖǎˀrì-ᵗʰɛ̀ (ibåhrjte) ‘the short ones of a group’ from pǎˀrì ‘short’
áᵗʰɛ́řɛ́-ˣtʰɛ̀ (átéréejte) ‘ones (AnPl) having no value’ from áᵗʰɛ́řɛ́ ‘without value, despicable’

3Note that the [ʰ] of -ᵗʰɛ remains in 332b and e, but becomes vowel length in the others. We do not know why.
The classifiers of column 3 of table 6.1 are used following numeral phrases:

\[(333) \text{ʦʰà-ːpʰì} \quad \text{(tsaápi)} \quad \text{‘one (masc.)’} \]
\[(334) \text{ʦʰá-ːpʰìʧɛ̀} \quad \text{(tsáápille)} \quad \text{‘one (fem.)’} \]
\[(335) \text{pʰápʰìˀʧʰɯ́ː-mɛ̀} \quad \text{βà} \quad \text{(pápihchúúmeva)} \quad \text{‘three (live beings)’} \]
\[(336) \text{mítʲʰà-mɛ̀} \quad \text{mítyame} \quad \text{‘many (live)} \]
\[(337) \text{ʦʰì-ˣpʰì} \quad \text{tsijpi} \quad \text{‘other male’} \]
\[(338) \text{ʦʰí-ˣpʰìʧɛ̀} \quad \text{tsíjpille} \quad \text{‘other female’} \]

For other examples, consider the following:

In 479, page 218, -tʲʰɛpʰɨ ⟨DuF⟩ is used on the number mɨ́ː ‘two’ and -mu pʰɨ ⟨DuF⟩ occurs on the noun kpáʧɛ̀ ‘woman’.

In 480, page 218, -mɛ ‘AnPl’ follows the numeral phrase ...pʰápʰìˀʧʰú: while -mu occurs on the noun kpáʧɛ̀ ‘woman’.

In 392, page 191, -mɛ follows the numeral phrase tsʰá-ʔòˣʦʰɨ́ while -mu follows the noun kpàˣpʰíː ‘man’.

The classifiers of column 3 are also used on quantifiers, for example:

\[(335) \text{mítʰà-mɛ̀} \quad \text{(many-⟨AnPl⟩ mítyme)} \quad \text{‘many (live)} \]
\[(336) \text{àː-mɛ̀} \quad \text{tha.me} \quad \text{‘those (aforementioned)’} \]
\[(337) \text{ʦʰì-ˣpʰì} \quad \text{tsijpi} \quad \text{‘other male’} \]
\[(338) \text{ʦʰí-ˣpʰìʧɛ̀} \quad \text{tsíjpille} \quad \text{‘other female’} \]

Inanimate classifiers

Inanimate classifiers—of which there are several hundred—refer to classes of physical things and abstract concepts. (See appendix E for a list.) Most refer to physical form, e.g., shape, like those in 338:
Aparticularly important inanimate classifier is -nɛ ⟨ø⟩. It may refer to anything other than an animate being. It may refer to physical objects, to events or to situations. Indeed, we might say that it means nothing more than ‘not animate’.

### 6.1.2 Classifiers derived from verb roots

Some Bora classifiers are derived from verbs. While at first blush deverbal classifiers seem remarkable, their existence is unsurprising given our claim (argued in section 6.3) that Bora classifiers are nouns.

There are two forms of derivation, one by the addition of a suffix, the other by lengthening the verb’s first vowel. These are now discussed in turn.

Some classifiers are derived by the addition of -ɯ ‘deverbal classifier’ (glossed ‘DVC’) to the verb root. For example, consider the bound root ɨβoʔo- in ɨβoʔoː-βɛ̀ (lie.face.down-sIn) ‘lie face down’. To this root we can add -ɯ ‘DVC’ to form the classifier -ɨβoʔo-ːɯ ‘something tipped upside down’. This classifier could then be used to form a noun phrase like tʰɛ-ɨβoʔo-ːɯ ‘that face-down thing’. Other examples: -àβoʔo-ːɯ ‘something covered’, as in í-àβoʔo-ː-ɨ (íavóhoóu) ‘this covered thing’;⁴ -kʰàʦɯ́ʦɯ̀-ːɯ ‘something shrunk’, as in ɛ́-kʰàʦɯ́ʦɯ̀-ːɯ̀ (écadsúsúu) ‘that shrunk thing’.⁵

A sentence illustrating the use of a classifier derived with -ɯ ‘DVC’ is given in 361, page 176. Note that the appositive modifier formed by a quantifier and deverbal classifier is much like a participle, that is, a deverbal adjective that indicates a state resulting from a previous event.

⁴Compare áβoʔo-ːβɛ̀ (ávohóóvo) ‘be covered (sIn)’.
⁵Compare kʰàʦɯ́ʦɯ̀-ːβɛ̀ (cádsúdsúu) ‘shrink (sIn)’.
In a few cases a classifier is derived from a verb by the addition of a classifier. For example, the classifier -kʰàˀmá-i ‘stack of (people, animals or things)’ is derived by means of the classifier -i ⟨stick⟩; compare the verb in 339a with the classifier in 339b:

(339) a. kʰàˀmá-ːβɛ̀ (cahmááve) ‘become close together’
   stack-sIn

b. pʰá-kʰàˀmá-ì (pācahmái) ‘stack of something’
   all-⟨stack-⟨stick⟩⟩

Some deverbal classifiers do not add a segmental classifier, but rather lengthen the root’s first vowel, as formalized in figure 6.1:

\[
\begin{array}{c}
\# & [v \circ(X)] \\
\downarrow \\
\# & [\text{classifier} \circ(X)]
\end{array}
\]

Figure 6.1 Classifiers derived from verb roots by length

For example, consider the verb tʃʰɛ̀ɾɛ́-ːβɛ̀ ‘split (sIn)’, the root of which is tʃʰɛɾɛ-. The classifier is derived by lengthening the first vowel: -tʃʰɛɾɛ/ ⟨crack⟩ (a split or crack); for example, í-tʃʰaːhà ⟨íchaája⟩ ‘this crack’. Other examples follow:

-tʃʰaːha ‘something rotten’ from tʃʰaha- ‘to rot’; e.g., í-tʃʰaːhà (íchaája) ‘this rot’.
-tʃeːɾɛ ‘sharp sound’ from tʃeːɾɛ- ‘to sound sharp and penetrating’, as in 340:

(340) ¿Á ú lleebó tédseére?
   á ú tʃeː pó.² tʃeː-tʃɛːɾɛ̃
   ques you hear-(t) that-(sharp.sound)
   ‘Did you hear that sharp sound?’

-noːɾa ‘hole made by penetrating the surface’ from nóra- ‘to break through’, as in 341:

(341) Ö ájtyumí ténoora juuváyí ɨju nóraavvéne.
   õ á tʃʰùmí.² tʃʰ-ːnɔrà ɨ [hùːrɔː-i jì ɨhù]
   I see-(t) that-⟨hole⟩ trail-obIn horse
   nɔrà-ːβɛ̃-nù
   penetrate-sIn-(ø)
   ‘I saw the hole the horse made on the trail (sinking a foot through the surface).’

Deriving a classifier from a verb—whether by adding -ɯ ‘DVC’, by adding a classifier, or by lengthening the root’s first vowel—is not a pro-

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ductive derivational process. One can not simply take an arbitrary verb and derive a classifier.

### 6.1.3 Classifiers cognate with other morphemes

#### Classifiers cognate with incorporated instruments

Some of the incorporated instruments (discussed in section 4.4) are cognate with classifiers and nouns. For example, compare the following incorporated instruments with the nouns and classifiers that follow:

- **tɨ-** ‘do with the teeth’:
  - tɨpɛ́ːɯ̀ ‘something held in a vise or between the lips or teeth’
  - tɨmuːmù:ù ‘as when the upper teeth bite the lower lip’

- **tʰà-** ‘do with the foot’:
  - tʰàːriná:ù ‘standing with the legs apart’
  - tʰàkʰì:ù ~ tʰàkʰìpà ‘a person or animal with very thick legs’

- **kʰi-** ‘do with some cutting tool’:
  - kʰi:tʰá:ùnùhì ‘a flat cut all around something round’
  - kʰi:tʰáʔi:ù ‘shaped like a very straight-cut board’
  - kʰi:tʰáʔúù ‘a notched-cut all around something round (e.g., a tree)’
  - kʰiβùhì ‘a ladies short haircut’

See also the noun tʰà:kʰíi (tájkii) ‘leg’.

#### Classifiers cognate with derived nouns

The classifiers in table 6.2 have cognate nouns with some additional material, in most cases quite transparently a classifier:

<table>
<thead>
<tr>
<th>CLASSIFIER</th>
<th>ROOT</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>-hù (-ju)</td>
<td>/hù:βà/</td>
<td>(juúva) ‘trail’</td>
</tr>
<tr>
<td>-tˢʰi (-tʃi)</td>
<td>/tˢʰi:mɛː/</td>
<td>(tʃiːme) ‘children’</td>
</tr>
<tr>
<td>-mo (mo)</td>
<td>/mó:à/</td>
<td>(móóā) ‘big river’</td>
</tr>
<tr>
<td>-mi (mì)</td>
<td>/mìnɛː/</td>
<td>(mìːne) ‘canoe’</td>
</tr>
<tr>
<td>-po (bo)</td>
<td>/ pó:à/</td>
<td>(bóóā) ‘boa’</td>
</tr>
</tbody>
</table>

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6.1.4 The tones of classifiers

A floating low tone occurs at the boundary between a classifier and what precedes it (its “host”). We represent it by c below. It is docked (with a few exceptions) by the following rules:

1. \( ...\sigma-\sigma## \) Monosyllabic classifiers place a low tone on their host’s final syllable.
2. Bisyllabic classifiers:
   a. \(#\#\sigma-\sigma\sigma##\) After a monosyllabic host a bisyllabic classifier bears a low tone on its initial syllable.
   b. \( ...\sigma\sigma-\sigma\sigma##\) After a polysyllabic host a bisyllabic classifier imposes a low tone on the host’s final syllable.
3. \( ...\sigma\sigma\sigma\sigma...\) Longer classifiers (three or more syllables) bear a low tone on their initial syllable.

The results are charted in table 6.3:

Table 6.3 The basic tone patterns of classifiers

<table>
<thead>
<tr>
<th>HOST (modifier)</th>
<th>CLASSIFIER (head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \sigma## )</td>
<td>( \sigma-\sigma\sigma## )</td>
</tr>
<tr>
<td>( #\sigma\sigma\sigma\sigma\sigma## )</td>
<td>( \sigma\sigma\sigma\sigma\sigma\sigma\sigma\sigma\σ##</td>
</tr>
<tr>
<td>( #\sigma\sigma\sigma\sigma\sigma\sigma\sigma\σ## )</td>
<td>( \sigma\σ##</td>
</tr>
<tr>
<td>( \sigma\sigma\sigma\sigma\sigma\sigma\sigma\σ## )</td>
<td>( \sigma\σ##</td>
</tr>
<tr>
<td>( \sigma\sigma\sigma\sigma\sigma\σ## )</td>
<td>( \sigma\σ##</td>
</tr>
<tr>
<td>( \sigma\sigma\σ## )</td>
<td>( \sigma\σ##</td>
</tr>
</tbody>
</table>

A monosyllabic classifier (case 1) is illustrated in 342:

(342) a. tsʰiː-kpà (tsíwa) ‘other slab’
   b. i-kpà (íwaá) ‘that slab’
   c. tsʰúːkʰá-á-kpà (tsúúcáawa) ‘old slab’
   d. tsʰiːmé-kpà (tsíeméwa) ‘some kind of slab’

In 342a and 342c, c dock’s on the host’s final syllable. In 342b c is blocked by the host’s lexically marked high tone, and in 342d c is blocked by the host’s lexically marked low tone. The tone derivations of tsʰiː-kpà and i-kpà are given in figure 6.2 and those of tsʰúːkʰá-á-kpà and tsʰiːmé-kpà in 6.3:
tsi: other  i that
| H lexical
L_wa <slab> +
L_wa <slab>
L FDLT
L FDLT
H PLTS
H PLTS
tsií-wa ‘other slab’
ì-waá ‘that slab’

Figure 6.2 TD: tsiíwa, íwaá

tsu:ca earlier time  tsíemé some kind
| L lexical
| e pertain +
L_wa <slab>
L_wa <slab>
L FDLT
L FDLT
H H DHT
H H DHT
tsúúcá-a-wa ‘old slab’
tsúúcáawa, tsíeméwa

Figure 6.3 TD: tsúúcáawa, tsíeméwa

A bisyllabic classifier (case 2) is illustrated in 343. In 343a and 343b, © is on the classifier’s initial syllable as expected (case 2a). In 343c © dock’s on the host’s final syllable as expected (case 2b). In 343d © is blocked by the host’s lexically marked low tone and is thus not docked.

(343) a. t$h^{i}-c^{} əːmî (t$hîhaámî) ‘other leaf’
b. $^{i}-c^{} əːmî (íhaámî) ‘that leaf’
c. t$h^{u}k$h^{a}-c^{} əːmî (t$súúcáaháámî) ‘old leaf’
d. t$h^{i}êmî-əːmî (tsíeméháámî) ‘some kind of leaf’

A polysyllabic classifier (case 3) is illustrated in 344:

(344) a. t$h^{i}-c^{} əːmáî (t$íaaámái) ‘other row’
b. $^{i}-c^{} əːmáî (íaaámái) ‘that row’
c. t$h^{u}k$h^{a}-c^{} əːmáî (t$súúcáaaámái) ‘old row’
d. t$h^{i}êmî-əːmáî (tsíeméaaámái) ‘some kind of row’

When a noun bears more than one classifier, generally the low tone imposed by the first classifier prevails. For example, in 345 the © of -ʔè ⟨tree⟩ docks on the host’s final syllable and blocks the © of -ʔàːmî.

(345) t$ámaːra-c^{ }ʔè-ʔàːmî (llámaárahéháámî) ‘leaf of a lemon tree’
lemon-⟨tree⟩-⟨leaf⟩
Classifier-terminated phrases are remarkably like genitive constructions:

1. In section 6.3 we argue that classifiers head their phrases. On this view they are structurally parallel to the genitive construction; both are instances of \([\text{NP NP}_{\text{modifier}} \text{N}_{\text{head}}]\).
2. In both cases the two parts (modifier and head) form a single tonal phrase within which the *LLX constraint may not be violated.
3. Both have a floating low tone at the boundary between the two parts.
4. With the single exception of case 2a (page 171), the rule for where to dock the floating low tone is the same: on the modifier’s final syllable if the head is one or two syllables; on the head’s initial syllable if it is longer.

### 6.2 The uses of classifiers

This section surveys the various ways classifiers are used. Classifiers may follow finite verbs to indicate the subject (6.2.1). Aside from this case, what precedes the classifier modifies the classifier. This may be a simple adjective (6.2.2). It may be a bound noun (6.2.3) or a bound stem such as demonstrative, indefinite, and interrogative modifiers (6.2.4.1), numerals and quantifiers (6.2.4.2) or a(ː)- thematic to form connectives (6.2.4.3). What precedes a classifier may be a nonfinite verb which, with the classifier, forms a derived noun, e.g., ‘doctor’ from ‘treat’ (6.2.5). Classifiers may head relative clauses (6.2.6) or perhaps, in the case of -nɛ ⟨∅⟩, function like a subordinator (6.2.7). What precedes the classifier may be a free possessive pronoun (6.2.8) or a collective or general noun, in which case the classifier “individuates” it (6.2.9). Classifiers may occur multiple times in a word (6.2.10). Classifiers may follow -ɛ ‘pertain to’ or -ɛmɛ ‘similar to’ (6.2.11). And classifiers play a vital referential role in discourse (6.2.12).

#### 6.2.1 Classifiers indicating the subject

Classifiers may be suffixed to a verb to indicate its subject, as in 346 with -₁ːːpɛ ⟨SgM⟩, -₁ːʧɛ ⟨SgF⟩, and -₁ː ○me ⟨AnPl⟩:

(346) a. tʰáːpɔː-ːpɛ (Tááboóbe.) ‘He treats (medically).’
   b. tʰáːpɔː-ʧɛ (Táábolle.) ‘She treats (medically).’
   c. tʰáːpɔː-ːmɛ (Taabóme.) ‘They treat (medically).’

(Compare these to the nonfinite verb + classifier combinations in 329.)
Inanimate classifiers may also be used as subjects as in 347–350; in 347 and 348 the classifier is in -\(1\)\(\circ\)\(n\)

(347) \(âtjɛ-nɛ\) (Alléne.) ‘It is raining.’
\(\text{rain-} \langle \emptyset \rangle\)

(348) \(âβjɛ-nɛ\) (Avyéne.) ‘It hurts.’
\(\text{suffer.pain-} \langle \emptyset \rangle\)

(349) \(âiβjɛ-ʔɛ\) (Áiivyéhe.) ‘The tree is burning.’
\(\text{burn-} \langle \text{tree} \rangle\)

(350) \(îmîvyéméjâ\).
\(\text{îmî-}βjɛ-\text{mê-hâ} \quad \text{‘The shelter (clothes,...) finish-sIn-rp-} \langle \text{shelter} \rangle \quad \text{is finished.’}\)

### 6.2.2 Classifiers with adjectives

A classifier may combine with an adjective to form a noun phrase referring to an object of the type denoted by the classifier. For example, consider the noun phrases in 351 having the adjective mit\(\text{h}^\text{a}\) ‘big’:

(351) a. mit\(\text{h}^\text{a}-\text{ʔɛ}\) (mityaha) ‘big tree’
\(\text{big-} \langle \text{tree} \rangle\)

b. mit\(\text{h}^\text{a}-\text{kpà}\) (mityawa) ‘big slab (plank, table, machete,...)’
\(\text{big-} \langle \text{slab} \rangle\)

c. mit\(\text{h}^\text{a}-\text{ʔá}:\text{mî} \) (mityaháamî) ‘big leaf (paper, book,...)’
\(\text{big-} \langle \text{leaf} \rangle\)

(352) p\(\text{h}^\text{a}nt\(\text{h}^\text{u}^\text{c}-\text{ʔá}:\text{mî} \) (pantúeháamî) ‘main leaf (paper, book, letter,...)’
\(\text{main-} \langle \text{leaf} \rangle\)

(353) \(ât^\text{h}^\text{r}^\text{ɛ}^\text{ɛ}^\text{ɛ}-\text{kpà} \) (âtéréewa) ‘worthless slab (plank, bench,...)’
\(\text{worthless-} \langle \text{slab} \rangle\)

A noun phrase consisting of an adjective and a classifier may be appositive to another noun phrase of the same class, either a simple noun or a noun phrase terminated by the same classifier\(^6\) as in the second word of 354:

(354) ûméhe\(\text{h}^\text{w}a \) ûtéréewa
\(\text{ûmê-} \langle \text{tree} \rangle- \langle \text{slab} \rangle \) \(\text{A ât}^\text{h}^\text{r}^\text{ɛ}^\text{ɛ}^\text{ɛ}-\text{kpà} \) ‘a worthless plank’
\(\text{worthless-} \langle \text{slab} \rangle\)

\(^6\text{Schematically: } [\text{NP X-classifier}], \text{ } [\text{NP Y_{Adj}-classifier}],\)
Indeed, this is one of the most significant functions of classifiers: they are the main mechanism for uniting various referring expressions (determiners, modifiers, nouns) into a single phrase; see section 7.1.

### 6.2.3 Classifiers with bound nouns

Some nouns form referring expressions only when combined with a following classifier. For example, úmɛ̀-, ínà- and mínɛ̀- never occur except when followed by a classifier, as in úmɛ̀-ʔɛ̀ ‘tree’, ínà-ʔá:mì ‘leaf’, and mínɛ̀-stʰɛ̀ ‘peccary’.


### 6.2.4 Classifiers to form qualifier phrases

Classifiers are also required to form qualifier phrases from bound roots; see section 7.8.2. The various types of qualifier will be surveyed in sections 6.2.4.1–6.2.4.3.

#### 6.2.4.1 Classifiers with demonstrative, indefinite, and interrogative modifiers

Classifiers combine with (bound) demonstrative modifiers, as in 355:

(355) a. í-ʔɛ̀ɛ́ (íhyeé) ‘this tree’
    this-(tree)

b. í-kpàá (íwaá) ‘this slab (bench, table,…)’
    this-(slab)

Classifiers combine with (bound) indefinite modifiers, as in 356:

(356) tsʰí-ʔá:mì (tsíhyaámi) ‘other leaf (paper, book,…)’
    other-(leaf)

Classifiers combine with (bound) interrogative modifiers, as in 357:

(357) kʰɛ́-ʔò (kéiíhyo) ‘which pencil (pen,…)?’
    which-(stick)

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6.2.4.2 Classifiers with numerals and quantifiers

Classifiers combine with (bound) numerals like tsʰa- ‘one’, as in 358, and with (bound) quantifiers like pʰa- ‘all, completely’, as in 359.

(358) a. tsʰà-ʔɛ̀ (tsahe) ‘one (tree, bush, plant, etc.)’
    one-(tree)
b. tsʰà-kpà (tsawa) ‘one slab (plank, machete,…)’
    one-(slab)
c. tsʰá-ʔàːmɨ̀ (tsáhaámɨ) ‘one (leaf, paper, book,…)’
    one-(leaf)

(359) pʰà-nɛ̀ (pane) ‘all things’
    all-(ø)
pʰà-kpà (pawa) ‘all slab-like things’
    all-(slab)
pʰà-ːpɛ̀ (paábe) ‘all of him (SgM)’
    all-(SgM)

The resulting phrase is normally used in apposition to another noun phrase. For example, in 360 mɨ́ amɯ́nàà ‘people’ is modified by pʰáːmáì ‘all like sticks in a row’:

(360) Mɨ́ amúnaa juuváyí péé páamái.
    mɨ́ amúna path-oblIn go-(t) all-(in.row)-(-stick)
    ‘People go on the path in a column, i.e., one behind another.’

Deverbal classifiers (as discussed in 6.1.2) may also be used this way. For example, in 361 the classifier -ɪβóʔòː-ɯ̀ is derived from the verb ɪβoʔo- ‘lie face down’ by the addition of -ɯ ‘DVC’. This is combined with pʰa- ‘all’ to form a noun phrase that is appositive to -mì, the classifier subject on the main verb:

(361) Teehí úníuri íjcyamɨ, mìne páivóhoóu.
    [tʰɛ̀ːʔí únìú ]-ri [ɪβóʔòː-ɯ̀] [mìː-nè]
    river beside -oblIn be-(canoe) transport-(ø)
    pʰá-ɪβóʔo-ː-ʊ̀ all-overturn-DVC
    ‘Alongside the river there is an overturned canoe.’
6.2. THE USES OF CLASSIFIERS

6.2.4.3 Classifiers forming connectives with a(ː) ‘thematic’

A classifier may combine with the bound, anaphoric modifier a(ː) ‘thematic’ to form a sentential connective. For example, the phrases in 362 refer to a person, animal or thing mentioned in the previous sentence. For further discussion see section 19.1.

(362) a. àː-tfè (aalle) ‘she’
   thm-(SgF)

b. àː-mî (aamî) ‘that canoe (boat, car,...)’
   thm-(canoe)

c. á-ʔàːmî (áhaamî) ‘that leaf (paper, book,...)’
   thm-(leaf)

d. àː-ʔɛ̀ (aahe) ‘that tree (plant,...)’
   thm-(tree)

6.2.5 Classifiers with nonfinite verbs

A verb is made nonfinite by adding a low tone regressive to the antepenult. (The nonfinite low tone is indicated by N in the examples below. For further details about the tonal modification, see figure 4.1, page 100.) A nonfinite verb may be combined with a classifier to refer to an object (of the type indicated by the classifier) associated with the event indicated by the verb.

The examples of 329, page 165, are like agentive nominalizations. Note that in 329e -tʰɛ ⟨AnPl⟩ is used with a nonfinite verb, whereas in 346c above -mɛ ⟨AnPl⟩ is used (to indicate the subject) following finite verbs.

In the following examples the classifier refers to an object other than the subject (agent) of the nonfinite verb:

(363) kpā: hákʰùː-ʔáːmî (waajácuhaámi) ‘book’
   knowing-(leaf)
   N kʰùː-βɛ-kpā (acúúvewa) ‘bench’
   sitting-(slab)
   kʰá:ntʰúːnùː-ʔloothing (caatúnuíhyo) ‘pencil (pen,...)’
   writing-(stick)
6.2.6 Classifiers as heads of relative clauses

A classifier may head a relative clause, either restrictive or nonrestrictive. The initial syllable of the relative clause’s verb bears high tone, as characteristic of subordinate clauses. Examples follow:

(364) Ọ ájtyumɨ teemɨ ímibájchóóbeke.
    ó átʰêmɨ-
    I see-
    ‘I saw the one (SgM) who fixed the canoe (launch, car, ...).’

(365) Ọ ájtyumɨ teemɨ dibye ímíbájchomɨ.
    ó átʰêmɨ-
    I see-
    ‘I saw the canoe (launch, car, ...) that he fixed.’

(366) Ópée o dsɨjcoja tsúúca nójcanúhi.
    [ó-pʰɛ́ɛ̀ ʦ]
    I-rem I sew -<shelter> already deteriorate-
    ‘The clothes that I sewed are now deteriorated.’

As with adjective + classifier combinations, relative clauses headed by a classifier may be appositive to a noun phrase, thereby modifying it; see example 391, page 190. For further discussion and examples see chapter 18.

6.2.7 The classifier -nɛ with complement clauses

The classifier -nɛ may terminate a complement, attaching itself to the clause-final verb. It seems to nominalize the clause so that it can be used as the argument of a higher verb, much like the classifiers that terminate relative clauses discussed in the previous section. For example, 367 has a direct object complement to a phasal verb.

(367) Áánéllii tujkénuube iíhjyúváne.
    á:nɛ́-ʧíː tʰʊɾkʰɛnʊ:-pɛ [i ɪh'ʊ́bá] -nɛ
    that-<ø>-motive begin-(SgM) self speak -<event>
    ‘For that reason, he began to speak.’

Example 958, page 362 has a sensory verb complement. It is similar to 367 in that -nɛ seems to do duty as a nominalizer.

7Note that in 366 the second-position clitic is inside the relative clause, which is the first constituent.
6.2.8 Classifiers with free possessive pronouns

Classifiers do not combine freely with the bound possessive pronouns. However, the possessive pronoun may first be combined with -nc ⟨∅⟩ to form a free possessive pronoun, e.g., tʰàˀ-ɲɛ (my-⟨∅⟩) ‘mine’ or tìˀ-ɲɛ (your-⟨∅⟩) ‘your’, and then a classifier may be added:

(368) a. tʰàˀ-ɲɛ́-kpà (tahñéwa) ‘my slab (bench, mine-⟨∅⟩-⟨slab⟩ table,…)’
    b. tʰàˀ-ɲɛ́-kpá-ˀhɨ̀ (tahñéwáhjɨ) ‘my slabs (benches, mine-⟨∅⟩-⟨slab⟩-pl tables,…)’
    c. tìˀ-ɲɛ́-ʔáːmɨ̀ (dihñéháámɨ) ‘your leaf (letter, your-⟨∅⟩-⟨leaf⟩ book,…)’

Even -nc ⟨∅⟩ may follow a free possessive pronoun:

(369) tʰàˀ-ɲɛ́-nɛ́-ˀhɨ̀ (tahñénéhjɨ) ‘my things’ mine-⟨∅⟩-⟨∅⟩-pl

6.2.9 Classifiers to individuate collective or general nouns

COLLECTIVE nouns denote collections; they do not refer to an individual except as combined with a classifier. Other nouns denote a GENERAL concept. For example, mútsʰɨːʦʰɨ (mútsɨɨ tsɨ) denotes a pear apple tree generally, including its roots, its trunk, its branches, its leaves, its fruit, its flowers, a grove of such trees, and so forth. To refer to a specific part, a classifier is used, as in 370:

(370) a. mútsʰɨːʦʰɨ-PARATOR (mútsɨɨtsɨba) ‘pear apple fruit’
    b. mútsʰɨːʦʰɨ-ʔɛ̀ (mútsɨɨtsihe) ‘pear apple tree’
    c. mútsʰɨːʦʰɨ- الأيام (mútsɨɨtsibáju) ‘pear apple grove’

Note that the denotation of such expressions is an object of the type referred to by the classifier. This is evidence that the classifier heads the noun phrase.

6.2.10 Multiple classifiers

Multiple classifiers are sometimes used. Note that 371a refers to a leaf, 371b to a plank, and 371c to a pole. None refers to a tree. The final classifier always sets the semantic domain within which the referent is to be found. (This is further evidence that the final classifier heads the phrase.)
6.2.11 Classifiers after -ɛ ‘pertain to’ or -ɛmɛ ‘similar to’

Classifiers may be used after -ɛ (-(−e−) ‘pertain to (per)’ or -ɛmɛ- (−eme−) ‘similar to (sim)’ in the following construction:

\[
\text{NOUN PHRASE} \{ e \} -\text{CLASSIFIER} \]

Examples of -ɛ ‘pertain to’ follow:

(372)ʧíːɲɛ́-ɛ̀-mɨ́ˣkʰò (llííñéemɨ́ jco) ‘fence (corral,…) below-per-enclosure that belongs below’

(373)tʰɯ́ˣkʰɛ́nɯ́-ɛ̀-kpà (tújkénúewa) ‘slab (table,…) front-per-(slab) that belongs in front’

(374)ʔáʧɯ́-ɛ́-kpà (hállúewa) ‘slab (bench, machete,…) top-per-(slab) that pertains to the upper part’

374 might be used as in 375. Note that in 375 there is only one instance of -βɯ ‘theme’, one that has scope over (i.e., c-commands) the noun phrase. Within that noun phrase ɛ̀ː-kpà and ʔáʧɯ́-ɛ́-kpà (hállú-é-wa) are appositive.

(375)Oke daacu eewa hállúéwavu.
\(ō-kʰè\ tā:kʰù [ɛː-kpà \ A \ ?áʧúr-ɛ̃-kpà ]-βû\)
I-obj Ang give that-(slab) above-per-(slab) -thm
‘Give me that slab (table, machete,…) which is above.’

In 376a and b, note that the first classifier belongs to class 2 of table 6.1, while the second belongs to class 3. (In 376b the group could be one’s family, clan, team, and so forth.)

(376) a. tíː-pʲɛ́-ɛ́-\( ^{p^h} \)l (díbyéejpi) ‘a member (SgM) of being-(SgM)-per-(SgM) his (SgM) group’

b. tíː-tʰɛ́-ɛ́-\( ^{p^h} \)l (diityéejpi) ‘a member (SgM) of being-(AnPl)-per-(SgM) their (AnPl) group’

\(^8\)An English parallel is the -o- in speedometer, which not too long ago was written speed-o-meter.
Examples of -ɛmɛ- ‘similar to, like’ follow:

(377) tíː-pʲɛ́-ɛ̀mɛ́-pʰí
    (díbyéeméjpi)
    being-⟨SgM⟩-sim-⟨SgM⟩
    ‘one (SgM) similar to him (SgM)’ or ‘He is like the other.’

(378) tʰɛ́ː-nɛ́-ɛ̀mɛ́-nɛ̀ (téénéeméne) ‘one similar to that (thing)’
    that-⟨ø⟩-sim-⟨ø⟩

(379) í-kpá-ɛ̀mɛ́-kpà (íwámewa) ‘a slab (table,...)
    this-⟨slab⟩-sim-⟨slab⟩
    similar to this one’

(380) tíː-ɛ̀-ʧɛ́-ɛ̀mɛ́-ʧɛ̀ ‘one (SgF) like your relative (SgF)’
    you-per-⟨SgF⟩-sim-⟨SgF⟩

### 6.2.12 Reference in discourse

To talk about a plank, it would first be introduced into the universe of discourse with a noun phrase like

(381) úmɛ́-ʔɛ̀-kpà (úméhewa)
    tree-⟨tree⟩-⟨slab⟩

Subsequently it could be referred to with a phrase headed by -kpa-⟨slab⟩ like those in 382:

(382) tʰɛ̀ː-kpà (teéwa) ‘that (aforementioned) slab-like thing’
    í-kpáá (íwaá) ‘this slab-like thing’
    ɛ́ˀ-kpáá (éhwaá) ‘that slab-like thing’
    tsʰi-kpà (tsiwa) ‘another slab-like thing’
    tsʰà-kpà (tsawa) ‘one slab-like thing’

Likewise, to introduce a machete into the universe of discourse we would first refer to it as nːʰːutive-kpà (cut-⟨slab⟩). Subsequently it could be referred to (in that universe of discourse) with tʰɛː-kpà (teéwa) ‘that (aforementioned) slab-like thing’, í-kpáá (íwaá) ‘this slab-like thing’, and so forth.

This parallels the use of English nouns that have very general meanings, such as thing. In a context in which a plank is prominent (active), we can refer to a plank with this thing, that thing, and so forth. However, if a machete were more prominent (active) in the universe of discourse, this thing or that thing would refer to the machete rather than the plank.

Bora differs from English principally in three ways:

1. Whereas English has few nouns like thing, Bora has several hundred classifiers. Thus Bora reference with an expression like ɛ²-kpa (that-⟨slab⟩) is much less ambiguous than English that thing.
2. Since this way of referring is so powerful in Bora, it has become the normal way to refer to objects in Bora discourse, the exceptional case being the use of a full noun to introduce a referent into the universe of discourse or to re-activate one that has “ decayed.”

3. The classifier is also used in the noun phrases that introduce objects into the universe of discourse, so classifiers occur in most referential expressions. (This is not the case for proper names.) By contrast, English thing is ordinarily used only to refer to things already present in the universe of discourse (the context).

6.3 The structural status of classifiers

In this section we argue that Bora classifiers are nouns.\(^9\) We claim that a word like átʰɛ́ɛ̀-kpà (worthless-⟨slab⟩ átɛ́ɛ́wə) ‘worthless slab (plank, table, bench, machete,...)’ has the following structure:

\[
\text{[NP [Adj átʰɛ́ɛ̀- ] [N -kpà ⟨slab⟩ ]]}
\]

Classifiers differ from noun roots in that they are suffixes, and thus bound. That they are bound should be clear from the abundant examples in this grammar: each classifier is attached to a verb, a noun, an adjective, and so forth, as outlined in section 6.2. By contrast, noun roots may be free or bound (requiring a following classifier). For a few classifiers there are corresponding free noun roots, as discussed in section 6.3.1.

Four reasons for believing that Bora classifiers are nouns are presented here: Some classifiers have corresponding free nouns (6.3.1), classifiers have referential properties typical of nouns (6.3.2), classifiers have the distribution typical of nouns (6.3.3), and classifiers head their phrases (6.3.4).

6.3.1 Some classifiers have corresponding free nouns

For some classifiers there are corresponding nouns. For example, corresponding to the classifier -ò:ʔi ⟨jaguar⟩, as in 383a, is the noun o:ʔi ‘jaguar, dog’, as in 383b and c:

\(^9\)This is argued further in Weber (2006), based on La categoría estructural de los clasificadores bora, presented at the 51st International Congress of Americanists, Santiago, Chile, 2003.
6.3. THE STRUCTURAL STATUS OF CLASSIFIERS

(383) a. tsʰá-oʔi (tsáoóhi) ‘one (jaguar)’
b. ʔoʔi:pɛ̀ (ooóhībye) ‘jaguar (SgM)’
c. ʔi-mɛ̀ (ooóhīmye) ‘jaguars (AnPl)’

The significance of such cases is this: If Bora classifiers are themselves nouns, then it is not surprising that some may also be used as independent nouns. Indeed, it is what one would expect.

This is not to suggest that the independent noun and the cognate classifier have identical meanings. For example, the classifier -ha (shelter) refers to something with an interior that can serve as a covering, e.g., a house, a pair of pants, a shirt, and so forth. However, the independent noun hàː refers to a house—and only to a house.

Other classifiers that are also used as nouns are (-)ʔóˣʦʰì ‘hand’, (-)ˣtʰɯ̀ʔà ‘foot’, and the following:

(384) í-pʰɛ̀ˣkʰò (íjchíemì) ‘car, truck’
     tʰɛ́-ˣkʰɛ̀ːmɛ̀ ‘that old man’ cf. kʰɛ̀ːmɛ̀ ‘old man’
     tsʰá-nůʔpà ‘one month’ cf. nůʔpà ‘moon, sun’

The classifier -mi (canoe) refers to the class of objects that can transport people. Following different modifiers it may refer to canoes, cars, airplanes, and so forth; for example:

(385) kʰù:hú:kù:mi (cuujúwamì) ‘launch’ (i.e., a boat
     fire.burning-transport with an onboard motor)
     ítʰi-ɛ̀-mì (íjchíemì) ‘car, truck’
     upland-per-transport
     kʰámɛ́-ɛ̀-mì (cááméemì) ‘airplane’
     high-per-transport

When any of these is present in the universe of discourse, it could be referred to with tʰɛ̀ː-mì ‘that transportation device’, í-mì ‘this transportation device’, and so forth. The cognate noun mì-nɛ̀ (transport-⟨ø⟩) refers to a canoe. Why does it refer specifically to a canoe? Certainly this reflects the fact that canoes are the cultural norm for transportation.

It is tempting to characterize the relationship between the referent of a classifier, a class, and the referent of that classifier followed by -nɛ̀ (⟨ø⟩), in terms of “prototypicality.” However, it is not clear that the culturally normal object to which the latter refers is characterizable in terms of fea-

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Classifiers in the way that a sparrow would be characterizable (as opposed to a penguin) in terms of the features of a bird.

On the other hand, it may be that we simply do not understand the features associated with each class. Consider, for example, the following. The Bora terms for certain animals native to the region have been extended to animals that have been more recently introduced: okʰahi ‘tapir, cow’; mɛ:ni ‘peccary, domestic pig’; ᵁʔiːpʲɛ ‘jaguar, dog’, ihu ‘anteater, horse’. In the cases of the cow and of the domestic pig, it is easy to see why the same term would be used. Dogs are probably identified with jaguars because of their size and general shape. What is the perceived similarity between a horse and an anteater? Is it because both have long noses? Perhaps what is most distinctive for the Bora about the anteater is not that it eats ants, but that it has a long nose.

These matters merit considerably more research.

6.3.2 Classifiers have the referential properties typical of nouns

Classifiers are like typical nominal elements in denoting classes of objects, that is, referring to objects that prototypically can be localized in space and persist over time. For example, -mɨ ⟨canoe⟩ denotes the class of objects that can transport people: canoes, cars, airplanes, and so forth.

Generally, noun roots have rather specific meanings while classifiers have less specific meanings. We now consider various cases:

1. Some classifiers denote large classes of objects that share one or more properties; e.g., -iʔo ⟨stick⟩ denotes the class of things that are relatively long and slender, roughly cylindrical, and have an orientation toward one end; -hi ⟨disk⟩ denotes the class of things that are disk-like, which includes pills, fields,...and even nations.

2. Some classifiers denote classes of objects defined rather narrowly; e.g., -ʦʰɨ ⟨child⟩, -loːʔi ⟨jaguar⟩, -ʔe ⟨tree⟩, and -pa ⟨box⟩.

3. Some classifiers are like pronouns in denoting small, deictically determined classes, often singletons; e.g., -tʃɛ ⟨SgF⟩, -mʉtsʰi ⟨DuM⟩, -mɛ ⟨AnPl⟩, and so forth. Note that in 386, -mɛ ⟨AnPl⟩ binds the anaphor i ‘self’. See also 963c, page 366.

(386) Imíllémé imájchone.
  ḱɨʃɛːmɛ ɪ mɑːtʃʰoːnɛ ‘They want to eat.’
  want-⟨AnPl⟩ self eat-⟨∅⟩

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Whether broad or narrow, whether deictically determined or not, classifiers are never used to attribute their properties to some other referring expression (as adjectives do); they are only used to refer to an object that has these properties.

### 6.3.3 Classifiers have the distribution typical of nouns

Morphologically, classifiers are like nouns in bearing inflection for number and case; e.g., ʧʰɛ́mɛ̀-mɛ́-ˀhɨ̀-kʰɛ̀ (be.ill-⟨AnPl⟩-pl-objAn) ‘to the sick people’.

Functionally, classifiers are like nouns in that they may indicate a sentence’s subject (see 6.2.1), as illustrated with -ːpʰɛ ⟨SgM⟩, -ʔɛ ⟨tree⟩ and -ha ⟨shelter⟩ in 387:

(387) tʰáːpó-ːpɛ̀ (Tááboóbe.) ‘He treats (medically).’
   áːfβɛ̀-ʔɛ̀ (Áíívyehe.) ‘The tree is burning.’
   ímíːβɛ̀-hà (Ímíívyeja.) ‘The house (clothes,…) is finished.’

Significantly, preverbal overt subjects do NOT co-occur with classifier subjects. This is because the classifier IS the subject—not simply an agreement marker.

A subject indicated by a classifier following the verb may be followed by an overt subject noun phrase, but this is appositive to the classifier subject:

(388) [predicate…verb] [subject -classifierᵢ] ⊗ (NPᵢ)

Like nouns, classifiers may head relative clauses; see examples 364–366 and discussion in section 6.2.6.

And, like nouns, classifiers may have adpositional complements as, for example, English (a) table like this one. In Bora, this is í-kpá-ɛmɛ̀-kɔ́ ‘a slab (plank, table, machete,…) like this one’, in which -ɛmɛ- ‘similar to’ is a postposition. Compare the structures in figure 6.4:
In both cases there are two noun phrases. The lower refers to the object of comparison while the higher refers to the object being likened to it. In Bora both of these noun phrases are headed by an instance of -kpa ⟨slab⟩.

Finally, as discussed in section 6.3.4, classifiers play a role within noun phrases typical of nouns, that is, they head the noun phrase.

6.3.4 Classifiers head their phrases

In Bora the syntax of noun phrase formation is played out internal to the word. Indeed, the syntax of noun phrases external to the word amounts to little more than apposition; see section 7.1 for further discussion.

We claim that—with the exception of classifiers used as (post-verbal) subjects—classifiers are the structural heads of their phrases. Given that classifiers are nouns, what is projected from them is a noun phrase. What precedes (nonfinite verb, subordinate verb, demonstrative, numeral, quantifier, adjective, and such) is a modifier.

We now present various arguments:

1. The head of a phrase is what gives the phrase its character. Formally, a head’s features are shared by the phrase projected from it. For example, assuming that dog is [+animate] and brown is [+color], the phrase the brown dog is [+animate] because its head, dog, is [+animate]. It is not [+color] because brown is a modifier, not the phrase’s head. (The phrase very brown is [+color] because its head, brown, is [+color].)

In Bora, kpá:hakʰu ‘know’ is a verb having features like [+verbal, +cognitive], which it shares with its nonfinite form kpá:hakʰu ‘knowing’. Suppose this is combined with -ʔaːmi ⟨leaf⟩ (paper, book,…),

11It might be possible to extend the claim to these cases on an analysis that projects sentences from their inflection, but we do not pursue that possibility here.
which has features like [+nominal, -verbal, -abstract, -animate]. Which features prevail, those of the nonfinite verb or those of the classifier? Because kpá:hákʰùr-ʔáːmì means ‘book’, clearly the features of the classifier prevail, not those of the nonfinite verb. The noun phrase would, like its head, be [+nominal, -verbal, -abstract, -animate].

2. That the classifier heads the noun phrase is quite clear when we consider mitʰa, which is ambiguous between ‘many’ [+plural] and ‘big’ [-plural], as in 389:

\[
\begin{align*}
(389)\ a. & \text{mitʰà-ːpɛ̀ (mítyaábe) ‘big man (or male animal)’} \\
& \text{many/big-⟨SgM⟩} & \text{∗many SgM} \\
\text{b. mitʰà-mɛ̀ (mítyme) ‘many men (or animals)’} \\
& \text{many/big-⟨AnPl⟩} & \text{or ‘big ones (AnPl)’}
\end{align*}
\]

The ambiguity of mitʰa is blocked in 389a because the classifier -ːpɛ̀ ⟨SgM⟩ is [-plural], and this feature prevails in giving the noun phrase its character. Formally, [-plural] percolates to the phrase first, blocking the percolation of [+plural] from mitʰa, which may therefore not mean ‘many’. Thus, the only interpretation possible for mitʰa in 389a is ‘big’. By contrast, the ambiguity is possible in 389b, where the head is -mɛ ⟨AnPl⟩, because its feature [+plural] does not conflict with either interpretation of mitʰa.

3. Consider now the issue of headedness in phrases that have multiple classifiers, as, for example, in mɯ́ʦʰɨ́ːʦʰɨ́-ʔɛ̀-ʔáːmì (pear.apple-⟨tree⟩-⟨leaf⟩) ‘leaf of a pear apple tree’. Here -ʔɛ ⟨tree⟩ heads [ [mɯ́ʦʰɨ́ːʦʰɨ́ ]-ʔɛ ], which denotes a pear apple tree. -ʔáːmì heads [ [ [mɯ́ʦʰɨ́ːʦʰɨ́ ]-ʔɛ ]-ʔáː-ːmì ], which denotes a leaf. At both levels the expression refers to a thing of the type indicated by the classifier because it heads the phrase.

4. It is important to understand that heads are not necessarily the semantically most significant part of a phrase. For example, consider English one in *Give me the big one. It makes little semantic contribution to the phrase, but heads the phrase (witness *Give me the big).

There are parallel cases in Bora with the classifier -nɛ ⟨∅⟩, which means nothing more than ‘not animate’. One case would be the formation of free possessive pronouns from bound possessive pronouns by the addition of -nɛ ⟨∅⟩, as discussed in 6.2.8. Indeed, in many cases the expression that -nɛ heads would not refer except as the presence of the head makes it a referring expression.
Another case is that of mi-nè transport-⟨ø⟩ ‘canoe’. By itself, the root mi- does not refer to a canoe; rather, it means quite generally ‘transportation’. However, it does refer to a canoe when combined with -nè ⟨ø⟩, which (1) satisfies the structural requirement for a head, and (2) denotes a class of objects, thus enabling the phrase to refer.  

5. It might be possible to formulate an argument against the claim that classifiers head their phrases based on the remarkable behavior of classifiers with numeral phrases.

When a numeral phrase is used to quantify a noun, that noun must agree in animacy, gender and number. For example, consider 478, page 218. The phrase that means ‘six’ ends with an animate, singular, masculine classifier because ‘six’ is literally ‘one from this hand’. When this phrase quantifies a noun (phrase), it must agree in animacy, number and gender. Thus, in ‘six dogs’—contrary to what one might expect—‘dogs’ is marked as singular and masculine. See section 7.7.2 for further discussion. However, this lends further support for the claim that classifiers head their phrases. What matters are the features of the the numeral phrase and the noun, which are precisely the features of the classifiers with which each ends. That is, the classifiers determine the features of their phrase, even though these features do not reflect the semantics of the expression.

To conclude this section (6.3), it should be clear that Bora classifiers are eminently nominal. Here we have made a stronger claim: that Bora classifiers are nouns. By doing so, it follows that Bora classifiers should share the major properties of nouns: the types of meanings they encode, the grammatical functions they may have, their distribution/use, and so forth. Indeed, they do except that they have a more restricted distribution than other nouns. And this restricted distribution is due to a simple property: that they are bound.

Based on the claim that Bora classifiers are nouns, it seems reasonable to think that what have been called “classifiers” in Bora are not really such, but simply a subclass of nouns. We will not try to resolve this issue here because the answer depends on whether one believes in universal category definitions or that ultimately each category must be defined for each language.

---

12 The root mi- is undoubtedly cognate with the classifier -mì, used for means of transportation (canoes, boats, cars, airplanes,…). The classifier denotes the class of objects that are means of transportation and as such may refer to a canoe, a boat, a car, and so forth. The root attributes; the classifier refers.
Chapter 7

Nouns and Noun Phrases

Noun phrases refer to persons, animals, things and abstract ideas (actions, events, states). They are formed from nouns, pronouns, numbers, nonfinite verbs, and classifiers.

To join elements with a noun or noun phrase to form referring expressions, generally languages make liberal use of constituency, conjunction, and compounding. Bora, by contrast, favors other mechanisms because it has an ample set of classifiers. These play a major role in the formation of noun phrases, arguably heading them. For example, in tʰɛ-ʦʰɨ ‘that baby’, the head is the classifier -ʦʰɨ ⟨baby⟩ and this is modified by the demonstrative “adjective” tʰɛ(ː)- ‘that’. See chapter 6 for a detailed discussion of classifiers.

Various mechanisms for forming referring expressions are given in table 7.1 roughly in the order of their frequency of use.¹ The significance of this table should become clear as this chapter is read.

¹In table 7.1 “NP” should not be understood strictly as a phrase projected from a noun, but loosely as a set of elements (morphemes, words, phrases, not necessarily contiguous) that cooperate in forming a referential expression.
Table 7.1 Combining nouns, classifiers, and noun phrases into noun phrases

<table>
<thead>
<tr>
<th>MECHANISM</th>
<th>STRUCTURE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>bound noun-classifier</td>
<td>([N \text{ bound-} \langle \text{classifier} \rangle])</td>
<td>very many</td>
</tr>
<tr>
<td>apposition</td>
<td>([\text{NP} \text{ NP} \text{ A} \backslash \text{NP}])</td>
<td>very many</td>
</tr>
<tr>
<td>genitive construction</td>
<td>([\text{NP} \text{ NP} \text{ G} \backslash \text{N}])</td>
<td>many</td>
</tr>
<tr>
<td>noun-e-classifier</td>
<td>([N \text{ N-ɛ-} \langle \text{classifier} \rangle])</td>
<td>many</td>
</tr>
<tr>
<td>free noun-classifier</td>
<td>([N \text{ N}_{\text{free}}-\langle \text{classifier} \rangle])</td>
<td>some</td>
</tr>
<tr>
<td>noun-eme-classifier</td>
<td>([N \text{ N-eme-} \langle \text{classifier} \rangle])</td>
<td>some</td>
</tr>
<tr>
<td>compounding</td>
<td>([\text{NN}])</td>
<td>few(^a)</td>
</tr>
<tr>
<td>conjunction</td>
<td>([\text{NP} \text{ NP} \text{ Conjunction NP}])</td>
<td>very limited</td>
</tr>
</tbody>
</table>

\(^a\)This judgement assumes that the second noun is not a classifier.

## 7.1 Apposition

The primary mechanism for combining various nominal words into a noun phrase is apposition, not—as in most languages—constituency.\(^2\) Patterns like those in 390 are frequent (and in some cases the appositive parts are discontinuous).

\[(390)\] a. \(\text{NP}_i \text{ A} \backslash \text{NP}_i \text{ A} \text{ NP}_i\ldots\)  
\(\text{b. verb-} \langle \text{classifier} \rangle_i \text{ A} \text{ NP}_i \text{ A} \text{ NP}_i\ldots\)

The classifiers play an important role in linking the various parts of a phrase. Consider 391 for example:

\[(391)\] Diibye wajpi cáracádvú ó ájcuube péjucóohi.

\(\text{tì-ːpʲɛ̀ \text{ A} \text{ kpà-} \text{pʰi} \text{ A} \text{ kʰáɾ-kʰá-tí-βɯ́} \text{ ṭhàt} \langle \text{SgM} \text{ man chicken-anim-thm} \rangle\) \(\text{ó ø, ákʰù ñ-ːpê, pʰɛ́-hùkʰóː-ʔì I \text{ give -} \langle \text{SgM} \text{ go-now-} \langle t \rangle \rangle \text{ ‘The man to whom I gave the chicken left.’}}\)

The first noun phrase, \(\text{tì-ːpʲɛ̀ ‘that (SgM)’ is a determiner-based pronoun; the second, kpà-} \text{pʰi ‘man’ is a noun; and the third, kʰáɾ-kʰá-tíβɯ́ ákʰù:pê ‘the one (SgM) to whom I gave the chicken’ is a relative clause. kpà-} \text{pʰi}\)

\(^2\)By apposition we mean the use of two or more referring expressions, possibly discontinuous, interpreted as having the same referent, but lacking a syntactic relationship. Apposition depends on an interpretive link in a way that constituency does not.
‘man’ is inherently animate, singular and masculine. The other noun phrases share those features by virtue of the classifier -ːpɛ̀ (SgM).

Numeral phrases and other quantifying phrases work the same way. For example, in 392 the numeral phrase tsʰáʔòˣʦʰɨ́ ‘five’ combines with the classifier -ːmɛ ⟨AnPl⟩; this combination is followed by the appositive noun (the animate plural suffixes providing the referential linkage):

(392) Tsáhojtsɨ́meva wajpíímú tsááhi.
    tsʰá-ʔòˣʦʰɨ́-mɛ̀ kpàⁿʰǐː-mú tsʰáːʔì ‘Five men
    one-⟨hand⟩-⟨AnPl⟩-plQ man-plAn come-⟨t⟩ come.’

A subject noun phrase may be appositive to a postverbal subject classifier:

(393) nɛ̀ːpɛ́-βà H a-Ha[A ː][i ː][tʃiː] (neebéváa íllií) ‘said his son’
    say-⟨SgM⟩-rpt-rem self son

A noun may be in apposition to a pronoun. For example, in 394 tʰáː kʰáːnì ‘my father’ is in apposition to the pronoun áːnɯ̀ ‘this (SgM)’:

(394) Áánu táácááni tsááhi.
    áːnɯ̀ tʰáː kʰáːnìʦʰáːʔì ‘This, my father, comes.’
    this(SgM) my father comes-⟨t⟩

A demonstrative adjective is made a demonstrative pronoun by the addition of a classifier. The noun it modifies is structurally appositive to it.

(395) tʰɛ́ːnɛ̀-ɾì tʰɛ́ːnɛ̀-ɾì (tééneri tsahróbari) ‘in that
    that-⟨ø⟩-oblIn basket-oblIn basket’

A classifier often provides the referential linkage that unites the parts, as in 397:

(397) téniihyo méwánííhyoke
    tʰɛ́ːnɛ̀ʔʲò mɛ́kpá-níːʔʲò-kʰɛ̀ ‘that wife-objAn’
    that-⟨mother⟩ wife-⟨mother⟩-objAn

Example 398 has both a demonstrative and quantifier:

(398) ...íñe páneere díftsíju bájtsoháňé...
    tʰɛ́ːnɛ̀ʔʲò pʰáːnɛ̀-ɾɛ̀ [tʃiː ː]-ʦʰɨ́ːhú pʰáⁿʰóʔáɲɛ́
    this-⟨ø⟩ all-⟨ø⟩-only your mother planting set
    ‘all of this your mother’s plantings’
A relative clause can be appositive to the noun it modifies. In 391 above the relative clause is appositive to the subject of the clause (the man); in 399 it is appositive to the direct object (the squirrel) of the verb (not given here); in 400, to the goal of motion, and so forth:

(399) ...néépicyókeváa ávyéjuube ánúúbeke...

squirrel-obj An-rpt-rem kingdom- ⟨SgM⟩ shoot- ⟨SgM⟩ -obj An

‘the squirrel the chief shot…’

(400) ...wañéhjívu, iyámé wañéhjí íjcyanévu...

festival-goal animal- ⟨AnPl⟩ festival be- ⟨ø ⟩ -goal

‘…to a festival, to where there was an animal festival…’

The phrases in apposition may be noncontiguous, as in 401, where máʧʰó-ːpɛ̀-kʰɛ́-hɨ́ːβà is in apposition to tí-ːpʲɛ̀-kʰɛ̀. (See also 807, page 316.)

(401) ¿Ɨ́veekí dííbyeke ú tsajtyé májchóóbekéjííva?

why-pur that- ⟨SgM⟩ -obj An you take- ⟨t ⟩

máʧʰó-ːpɛ̀-kʰɛ́-hɨ́ːβà

eat- ⟨SgM⟩ -obj An -deny

‘Why do you take him who has not yet eaten?’

A negative deverbal adjective may be appositive to a noun or pronoun, as in 188 (page 116) and 189.

A few words, among them máʧʰà-nè ‘many’, function like prenominal adjectives, as in 402:

(402) máʧʰà-nè kpàː-mùù (mítyane waámyu) ‘many mosquitos’
much- ⟨ø ⟩ mosquito-pl

However, because these require the classifier -nɛ ⟨ø ⟩, the modifier and head are arguably related by apposition rather than constituency; for further discussion see section 7.8.1.2.

3 Others are: àjà ‘little, few’, ñʰóʔùù ‘little, few’, ú’hè ‘little, few’, pʰįβá- ‘numerous’, pʰà- ‘all’.

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7.2 Nouns

Nouns may be animate or inanimate. They may be singular, dual or plural. Animate singular and dual nouns are either masculine or feminine. The order of suffixes following a noun stem is given in figure 7.1.

![Figure 7.1 The order of nominal suffixes](image)

There are three classes of nouns: concrete (7.2.1), abstract (7.2.2), and locative nouns (7.2.3).

7.2.1 Concrete

Concrete nouns are either animate (i.e., living beings) or inanimate.

7.2.1.1 Animate

An animate noun may be inherently masculine, feminine, or unspecified for gender. The plural and dual are formed with the following suffix combinations:

(403) -mu + tsʰi (-mutsi) (DuM)
-μu + pʰi (-mupi) (DuF)
-μu (μu) ‘plAn’

The basic form of an animate noun may be singular or collective.

---

4The basic system of contrasts is as follows (in which [–masculine] is feminine and [–dual] is plural):

item: ±animate, ±plural
−plural: ±dual
+animate, −plural: ±masculine

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**Singular in the basic form.** SINGULAR animate nouns form the dual and plural with the suffixes of 403, as in 404:

(404) a. mènì (meéni) ‘pig (AnSg)’
    b. mènì-múts’hì (méénimútsi) ‘pigs (DuM)’
    c. mènì-múp’hì (méénimúpì) ‘pigs (DuF)’
    d. mènì-mù (méénimu) ‘pigs (AnPl)’

Some words that we might regard as inanimate are animate in Bora; for example:

(405) a. núpà (nuhba) ‘sun, moon, watch’
    b. núpà-múts’hì (núhbamútsi) ‘the sun and the moon, two watches’
    c. núpà-mù (núhbamu) ‘watches (AnPl)’

Other words of this sort (which undoubtedly reflect something of Bora cosmology) are: mìk’hùru ‘stars’, tʰì-f’t’hì ‘thunder’, and tʰù:r:i ‘rainbow’.

Nouns referring to an individual may be followed by -mutsh’ì to refer to that individual and his or her associate. For example, a set of parents can be referred to either as k’há:ní-múts’hì (father-(DuM)) or t’s’hùr-múts’hì (mother-(DuM)).

**Collective nouns.** The basic form of a COLLECTIVE animate noun refers to a collection rather than to a single entity. These form the singular and dual by adding a singular or dual classifier, or by adding a suffix following the classifier. Duals are formed with the following suffixes:

(406) -mutsh’ì (-mútsi) (DuM)
    -múp’hì (-múpì) (DuF)

In 407 the noun i?:ùhè ‘curuhuinse (a type of leaf-cutter ant)’ is collective. This is made singular in 407b,c by the classifier -u (singular). In 407c it is further made dual and masculine:

(407) a. i?:ùhè (ííhyuje) ‘leaf-cutter ants’ (collective)
    b. i?:ùhè-u (ííhyujéu) ‘leaf-cutter ant (sg)’
    c. i?:ùhè-ù-múts’hì (ííhyujéumútsi) ‘two leaf-cutter ants (DuM)’

Example 408, where k’hà: refers to a type of small, stinging ant, is similar except that the classifier is -pa:

(408) a. k’hà: (caá) ‘ants (collective)’
    b. k’hà-ù-pà (cahba) ‘ant (sg)’
    c. k’hà-ù-ù-múts’hì (cáhba mútsi) ‘two ants (DuM)’

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The noun mɨ́ːkʰɯ̀ɾɯ̀ ‘stars’ is inanimate and collective. The singular is formed by the addition of a classifier (as in 409b) and the dual is formed by further adding -mɯʦʰi ‘DuM’ (as in 409c). (Although the collective form is inanimate, individual named stars may be animate and the dual form is always animate.)

(a) mɨ́ːkʰɯ̀ɾɯ̀ (mɨ́ː curu) ‘stars (collective)’
(b) mɨ́ːkʰɯ́ɾɯ̀-kpà (mɨ́ː cúruwa) ‘star (sg)’
(c) mɨ́ːkʰɯ́ɾɯ̀-kpá-mɯ₇ʰi (mɨ́ː cúruwámútsi) ‘stars (DuM)’

The animate collective nouns may be followed by one of the following classifiers: -ˣpʰi ‘singular masculine’, -ʧɛ ‘singular feminine’, -ˣtʰɛʦʰi ‘dual masculine’, -ˣtʰɛpʰi ‘dual feminine’. Examples follow:

(a) mɨ́Laːmɯ́nàà (mɨ́ amúnaa) ‘people (collective)’
(b) mɨ́Laːmɯ́náà-ˣpʰì (mɨ́ amúnáajpi) ‘person (SgM)’
(c) mɨ́Laːmɯ́náà-ʧɛ̀ (mɨ́ amúnáalle) ‘person (SgF)’
(d) mɨ́Laːmɯ́náà-ˣtʰɛ́ʦʰì (mɨ́ amúnáajtétsi) ‘two persons (DuM)’
(e) mɨ́Laːmɯ́náà-ˣtʰɛ́pʰɨ̀ (mɨ́ amúnáajtépɨ) ‘two persons (DuF)’

7.2.1.2 Inanimate

Inanimate nouns are of two types: those whose basic form is singular and those whose basic form is collective (plural).

**Singular in the basic form.** SINGULAR inanimate nouns form the dual with -(ː)kʰu ‘duIn’ and the plural with -(ː)ne ‘plIn’. For example:

(a) úmɨ¹ʔɛ̀ (úmɨhe) ‘field (sg)’
(b) úmɨ¹ʔɛ̀-kʰu (úmihécu) ‘two fields’
(c) úmɨ¹ʔɛ̀-nɛ̀ (úmihéne) ‘fields (pl)’

In 412, the vowel length of -(ː)kʰu and -(ː)ne surfaces (following the classifier -ʔɛ ‘tree’). Compare 411b and c with 412b and c; we do not know why in one case the vowel is lengthened while in the other case it is not.⁵

(a) úmɛ̀-ʔɛ̀ (úmehe) ‘tree (sg)’
(b) úmɛ̀-ʔɛ̀-kʰu (úmehéécu) ‘two trees’
(c) úmɛ̀-ʔɛ̀-mɛ̀ (úmehééne) ‘trees’ (pl)

⁵It probably has nothing to do with the lexically marked low tone of úmɨ¹ʔɛ̀.
-⟨kʰɯ-u⟩ ‘duln’ and -⟨nɛ ⟩ ‘plIn’ suppress the length of preceding syllables, as discussed in section 2.7.4.1. This can be seen in the following data, in which the root’s length shows up in both singular forms but in neither plural form:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘river’</td>
<td>‘little river’</td>
</tr>
<tr>
<td>tʰɛːʔì (teéhi)</td>
<td>tʰɛːʔì-kpɯ̀ (tééhíwu)</td>
</tr>
<tr>
<td>‘trail’</td>
<td>‘little trail’</td>
</tr>
<tr>
<td>hɯ̀ːβà (juúva)</td>
<td>hɯ̀ːβá-kpɯ̀ (juuváwu)</td>
</tr>
</tbody>
</table>

Note that, in the nondiminutive plural forms /tʰɛːʔìɲɛ̀/ and /hɯ́βàɲɛ̀/, the length of -⟨nɛ ⟩ ‘plural’ does not appear. In the case of /hɯ́βàɲɛ̀/ perhaps this is because the preceding vowel was historically */aʲ/, with the palatal semivowel filling the syllable coda. In the case of /tʰɛːʔìɲɛ̀/, it may be that the length of the preceding /i/ is absorbed into the palatalization of the nasal.

**Collective nouns.** Inanimate collective nouns, which have generic meanings, form the singular by adding a classifier, one that characterizes the referent. The dual or plural can be formed by adding -⟨kʰɯ-u⟩ ‘duln’ or -⟨nɛ ⟩ ‘plIn’ after the classifier, as illustrated below. These suffixes contribute length to the preceding vowel and cause the length of the root to be suppressed. Compare 413c and d to 413a and b, and 414b and c to 414a. See also 415c.

(413) a. mútsʰɨːʦʰɨ̀ (mútsɨɨ ́ tsɨ) ‘pear apple’
   b. mútsʰɨːʦʰɨ̀-pà (mútsɨ ́ ɨ ́ tsɨba) ‘pear apple (sg)’
   c. mútsʰɨːʦʰɨ̀-pà:-kʰɯ-u (mútsɨtsibáacu) ‘two pear apples (du)’
   d. mútsʰɨːʦʰɨ̀-pà:-nɛ̀ (mútsɨtsibáne) ‘pear apples (pl)’

(414) a. mútsʰɨːʦʰɨ-ʔè (mútsɨfsihe) ‘pear apple tree’ (sg)
   b. mútsʰɨːʦʰɨ-ʔè:-kʰɯ-u (mútsɨtsihéécu) ‘two pear apple trees (du)’
   c. mútsʰɨːʦʰɨ-ʔè:-nɛ̀ (mútsɨtsihééne) ‘pear apple trees (pl)’

ʦʰɨːmɛ̀ ‘offspring (either children or the offspring of animals)’ is unique in adding nɛ to form the singular from an animate collective noun; compare 415a and 415b. Further, the dual is formed with -kʰɯ-u ‘inanimate dual’, which ordinarily only follows inanimate nouns; see 415c. However, the duals are also formed with -muteʰi ⟨DuM⟩ and -mupʰi ⟨DuF⟩, which are used only with animate nouns; see 415d and 415e.
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(415) a. tsʰɨːmɛ̀ (tsɨɨ ́ me) ‘young (collective)’
    b. tsʰɨːmɛ̀nɛ̀ (tsɨ ́ ɨ ́ mene) ‘young (sg)’
    c. tsʰɨːmɛ̀nɛ́-ːkʰɯ̀ (tsɨ ́ menéécu) ‘two young (inan.)’
    d. tsʰɨːmɛ́nɛ̀-mɯ́ʦʰì (tsɨ ́ ménemútsi) ‘two young (masc.)’
    e. tsʰɨːmɛ́nɛ̀-mɯ́pʰɨ̀ (tsɨ ́ ménemúpɨ) ‘two young (fem.)’

Despite this curious pattern, the words in 415 are all treated in the syntax as animate. For example, when used as a direct object they would be followed by -ràkʰɛ’objAn’.

7.2.2 Abstract

Verb stems can be made nonfinite by imposing a low tone regressive to the antepenult; see figure 4.1, page 100. These nonfinite verbs may refer to collections of things like food, fruit, meat, and such. For example, mɑⁿ tʃʰɔ ‘food’. They may also refer to actions, events or states; for example, in 129, page 101, the nonfinite form of ‘to yawn’ is ‘yawn(s)’; in 130 the nonfinite form of ‘fix’ is ‘the one fixed’; in 127 the nonfinite form of ‘to become sad’ is ‘sadness’.

Abstract nouns are pluralized by putting them in a genitive construction headed by ?aɲɛ ‘various (set)’.

Examples follow, first of collections of physical things like food, people and dogs, and then of more abstract things like actions, events, and states:

(416) a. mɑⁿ tʃʰɔ ʔaɲɛ̀ (majchóháñe) ‘various foods, food var various types of food’
    b. mɨ́ amɯ́nà ʔaɲɛ̀ (mɨ ́ amúnaaháñe) ‘(a variety of) peoples’
    c. oːʔɪmɛ́ tʃʰ oʔaɲɛ̀ (oohímyeháñe) ‘(a variety of) dogs’
    d. ímipáˣ tʃʰ ʔaɲɛ̀ (ímibájchoháñe) ‘various instances fixing var of fixing’
    e. kʰáβɑⁿkʰ oʔaɲɛ̀-mà (cávaájcoháñema) ‘with various poke.hole var-with pokers’

(417) Mítjane kimóóveháñé téhulle.
    mítʰà-nɛ̀ kʰimó-ːβɛ̀ tʃʰɛʔuîtrelarge-plin sadness-sln various that-⟨location⟩ ‘There is much sadness there.’

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Abstract nouns that refer to states or qualities may be used—with tone modifications—as adjectives (see 418) and adverbs (see 421). For example, consider ne'ni ‘be ugly’. In 418a it is a verb. (The initial low tone is imposed by -ʔi ⟨t⟩.) In 418b it is a predicate adjective with high tones. In 418c,d it is a possessed nonfinite form (the genitive low tone docking on the modifier’s final syllable because the head is bisyllabic).

(418) a. ó nɛ̃niʔi (ó nehníhi) ‘I am ugly.’ (finite verb)
   I be.ugly-⟨t⟩

   b. nɛ̃ni dó (Néhní oó.) ‘I am ugly.’ (adjective)
   ugly I

   c. tʰa nɛ̃ni (tanéhni) ‘my ugliness’ (nonfinite verb)
   my ugliness

d. Dííbye néhní bóhówaavéhi.
   [t-ipʰɛ nɛ̃ni] póʔókpàːβɛʔi
   that-⟨SgM⟩ ugliness visible-In-⟨t⟩
   ‘He manifests his meanness. (lit. His ugliness shows.)’

For example, consider imi’tʰu ‘be bad’. In 419 it is a verb; in 420, a predicate adjective; in 421, an adverb:

(419) a. ímí-tʰù⁻ːpɛ̀ (Ímítyúbe.) ‘He is bad.’
   be.good-neg-⟨SgM⟩

   b. ó ímí-tʰù⁻ʔi (Ó imítyúhi.) ‘I am bad.’
   I be.good-neg-⟨t⟩

(420) Ímítyú dííbye wákímyéi.
   ímí⁻tʰù tʰ⁻ːpɛ̀ kpákʰimʲɛ́i ‘His work is bad.’
   good-neg that-⟨SgM⟩ work (predicate adjective)

(421) Ímítyú wákímyéiíbye.
   ímí⁻tʰù kpákʰimʲɛ́i⁻ːpɛ̀ ‘He works bad(ly).’ (adverb)
   good-neg work-⟨SgM⟩

### 7.2.3 Locative nouns

LOCATIVE NOUNS (sometimes referred to as “spatial relators”) indicate location or position relative to someone or something. In Bora these frequently head a genitive construction, with the modifier indicating the being or thing relative to which location is indicated. For example, in 422
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pʰʰâɲe heads a genitive construction; the modifier (i''-h'a ‘his house’) is the object relative to which position is indicated. Other examples follow:

pʰʰâɲe (pañe) ‘interior, inside’:

(422) Íhjyá pañe íjcyáábe.
\[ [ h'á ] ña-ː'pɛ̀ ] íʰkʰà-ː'pɛ̀  ‘He is in his house.’
\[ self house inside be-⟨SgM⟩ \]

pa: (baa) ‘below’:

(423) pàː-ːtʰɯ̀ ts'háː-ːpɛ̀ (Baatu tsáábeé.) ‘He comes from below.’

ʧLıːɲɛ (lliiñe) ‘lower part’:

(424) Táñahbe úcaavé já lliiñévu.
\[ h'á ] ña-ː'pɛ̀ úikʰàː-ːβɛ̀-ː há ʧLıːɲɛ-ːβṹ
my sib-⟨SgM⟩ enter-sIn-⟨t⟩ house under-goal
‘My brother went in under the house.’

kʰaːme (caáme) ‘above’:

(425) kʰaːmɛ́-ːpɛ̀ (Caáme íjcyáábe.) ‘He is above.’
\[ above be-⟨SgM⟩ \]

(426) kʰaːmɛ́-ːβṹ nɛ́ɾíːβʲɛ̀-ːpɛ̀ (Caámevu néríívyeébe.)
\[ above-goal ascend-⟨SgM⟩ \]
‘He ascended to (the place) above.’

ũniu (úniu) ‘along side of, beside’; e.g., tʰá ñũniu-ːri (my beside-oblIn)
‘at my side’

The locative noun a:?i ‘at home’ is of a somewhat different sort. Generally it is used as a locative adverb, without a following case marker, as in example 427:

(427) à:?i ti-ː'pɛ̀ (Aáhi diíbye.) ‘He is at home.’
\[ at.home that-⟨SgM⟩ \]

Locative nouns are rarely pluralized. If so, they usually bear -ʔaɲe ‘various’ (used typically to pluralize abstract nouns). However, ũniu ‘along side of’ is pluralized with -kʰṹ ‘duIn’ or -ːnɛ̀ ‘plIn’:

(428) a. ũniúː-ːkʰṹ (ũniúːcu) ‘sides (du)’
\[ ũniúː-ːnɛ̀ (ũniúːne) ‘sides (pl)’ \]
7.3 Number

This section discusses the number (singular, dual, plural) of nouns. The singular of some collective nouns is formed by the addition of a classifier; see section 7.3.1. Some animate nouns are plural by virtue of bearing a plural classifier; see section 7.3.2. A noun may be pluralized with one of five pluralizers: -mu, -ne, -hi, -ʔane, and -βa; see sections 7.3.3–7.3.7.

7.3.1 The singular of collective nouns

As discussed in section 7.2.1, collective nouns, i.e., ones that refer to collections, form singulars by the addition of a classifier. For example:

(429) tsí:tsí (money dsí:dsí) ‘money’
    tsí:tsí-hì (money-⟨disk⟩ dsí:dsí:jí) ‘coin’

(430) jí:jámà:pà (lemon llámaára) ‘lemons’
    jí:jámà:pà-pà (lemon-⟨sphere⟩ llámaá:ra) ‘one lemon’
    jí:jámà:pà-ʔè (lemon-⟨tree⟩ llámaá:ra) ‘lemon tree’
    jí:jámà:pà-páhì (lemon-⟨grove⟩ llámaá:ra) ‘lemon grove’

7.3.2 Plural nouns formed with plural classifiers

As discussed in section 7.2.1, some animate nouns are plural by virtue of bearing a plural classifier. The animate nominal roots for ‘jaguar’, ‘fish’ and ‘animals’ are bound in the sense that they must occur with a classifier. The noun’s number is determined by the number of the classifier; -L mɛ̀ ⟨AnPl⟩ is used for the plural, as in 431–433:

(431) ò:ʔí-pɛ̀ (jaguar-⟨SgM⟩ oohí:bye) ‘jaguar (SgM)’

(432) à:mo-ːpɛ̀ (fish-⟨SgM⟩ amó:be) ‘fish (sg)’
    à:mo-mɛ̀ (fish-⟨AnPl⟩ amó:me) ‘fish (pl)’

(433) ijá-ːpɛ̀ (animal-⟨SgM⟩ iyá:be) ‘animal’
    ijá-mɛ̀ (animal-⟨AnPl⟩ iyá:me) ‘animals’

The bound root mîne- ‘peccary’ is like these except it forms the plural with -ʔì:bɛ̀ ⟨AnPl⟩. To our knowledge, this is the only root that does this.

(434) mîne-ːpɛ̀ (peccary-⟨SgM⟩ mîne:be) ‘peccary’
The duals are formed by adding -mɯʦʰi (DuM) or -mɯpʰɨ (DuF) following the singular classifier. (See table 7.2 for additional examples.)

(435) oʔí:-pʰé-múú-pʰˀi (oohíbyemúpi) ‘jaguars (DuF)’
doɡ-⟨SgM⟩-DuM
óʔí:-pʰé-múutsʰi (oohíbyemútsi) ‘jaguars (DuM)’
doɡ-⟨SgM⟩-DuM
mínɛː:-pʰé-múutsʰi (mínéebémútsi) ‘peccaries (DuM)’
peccary-⟨SgM⟩-DuM

7.3.3 Pluralization with -ɨmu

Generally, animate nouns are pluralized by suffixing -ɨmu (−mu) ‘plAn’, as in 436a and b. -ɨmu supplants a singular classifier with some animate nouns, as in 436c, d, or with some inanimate nouns, as in e:

(436) SINGULAR | PLURAL
---|---
a. anteater, horse iːhù (ɨɨju) | iːhù-mù (ɨɨjumu)
b. buzzard âŋù (aŋu) | âŋù-mù (âŋumu)
c. rat kʰùːβɛ̀-pà (cuuvéba) | kʰùːβɛ̀-mù (cuuvému)
d. dove ɨhùː-ʊ (ɨjuu) | ɨhùː-mù (ɨjuumu)
e. plate pɔtʰá-hì (bohtájì) | pɔtʰá-mù (bohtámu)

(437) őkʰáhì-múutsʰi (őcájimútsi) ‘tapirs (DuM)’
őkʰáhì-múpʰɨ (őcájimúpi) ‘tapirs (DuF)’
őkʰáhì-ɨmu (őcájimu) ‘tapirs (more than two)’.

The noun őβáˀʦʰà ‘male adolescent’ is singular; the plural is formed with -ɨmu. By contrast, páʦɨ̀ˣkʰà ‘female adolescent’ is plural (collective); the singular is formed with -hà:

<table>
<thead>
<tr>
<th>MALE ADOLESCENT</th>
<th>FEMALE ADOLESCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGULAR</td>
<td>PLURAL</td>
</tr>
<tr>
<td>őβáˀʦʰà (ováhtsa)</td>
<td>őβáˀʦʰà-mù (ováhtsamu)</td>
</tr>
<tr>
<td>páʦɨkʰà-hà (bádsíjcajá)</td>
<td>páʦɨkʰà (bádsíjca)</td>
</tr>
</tbody>
</table>

Some animate nouns derive the dual by adding -mɯtsʰi or -mɯpʰɨ after the singular classifier, but form the plural by substituting -mu for the classifier. A few inanimate nouns form the plural by replacing the classifier with -mu, but form the dual with the -kʰù ‘InPl’. See table 7.2.
Table 7.2 Nouns that form the plural by replacing the classifier

<table>
<thead>
<tr>
<th>ANIMATE</th>
<th>SINGULAR</th>
<th>DUAL MASCULINE</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>'toad'</td>
<td>à'kʰó-kpà</td>
<td>à'kʰó-kpà-mɯ́ʦʰì</td>
<td>à'kʰó-mɯ̀</td>
</tr>
<tr>
<td></td>
<td>(ahcówa)</td>
<td>(ahcówamútsi)</td>
<td>(ahcómu)</td>
</tr>
<tr>
<td>'bird'</td>
<td>kʰːmːí-kʰːo</td>
<td>kʰːmːí-kʰːo-mɯ́ʦʰì</td>
<td>kʰːmːí-mɯ̀</td>
</tr>
<tr>
<td></td>
<td>(coomíco)</td>
<td>(coomícomútsi)</td>
<td>(coomímu)</td>
</tr>
<tr>
<td>'turtle'</td>
<td>kʰú:mɯ́-hǐ</td>
<td>kʰú:mɯ́-hǐ-mɯ́ʦʰì</td>
<td>kʰú:mɯ́-mɯ̀</td>
</tr>
<tr>
<td></td>
<td>(cúumúji)</td>
<td>(cúumújimútsi)</td>
<td>(cúumumu)</td>
</tr>
<tr>
<td>'cricket'</td>
<td>tʰːákʰːátʰːi-ːu</td>
<td>tʰːákʰːátʰːi-ːu-mɯ́ʦʰì</td>
<td>tʰːákʰːátʰːi-mɯ̀</td>
</tr>
<tr>
<td></td>
<td>(chácáhamster)</td>
<td>(chácáhamsterútsi)</td>
<td>(chácáhamstermu)</td>
</tr>
<tr>
<td>'parrot'</td>
<td>tʰːʔaʔtʰːaʔ-ːi</td>
<td>tʰːʔaʔtʰːaʔ-ːi-mɯ́ʦʰì</td>
<td>tʰːʔaʔtʰːaʔ-mɯ̀</td>
</tr>
<tr>
<td></td>
<td>(chahcháai)</td>
<td>(chahcháaimútsi)</td>
<td>(chahcháamu)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INANIMATE SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>'plate'</td>
<td>pʰtʰá-hǐ</td>
<td>pʰtʰá-hǐ-kʰːu</td>
</tr>
<tr>
<td></td>
<td>(bohtájǐ)</td>
<td>(bohtájǐfɛ)</td>
</tr>
<tr>
<td>'scissors'</td>
<td>mǎkʰːpá-kpá</td>
<td>mǎkʰːpá-kpá-kʰːu</td>
</tr>
<tr>
<td></td>
<td>(majchówa)</td>
<td>(majchówaácu)</td>
</tr>
<tr>
<td>'room'</td>
<td>mǐkʰːpá-ʔɔ́</td>
<td>mǐkʰːpá-ʔɔ́-ːkʰːu</td>
</tr>
<tr>
<td></td>
<td>(mǐjcoho)</td>
<td>(mǐjcohoócu)</td>
</tr>
</tbody>
</table>

7.3.4 The plural suffix -nɛ

The pluralizer -nɛ (:-ne) ~ -ːnɛ (:-ñe) ‘plln’ is added to singular inanimate nouns to form the corresponding plural, as in the following:

* úmɛ̀ʔɛ́-nɛ̀ (úmɛ̀hɛ́ne) ‘fields’; cf. úmɛ̀ʔɛ́ ‘field’
* kʰːmɛ̀ːmɛ̀-nɛ̀ (kʰːmɛ̀ːmɛ̀-nɛ̀) ‘airplanes’; cf. kʰːmɛ̀ːmɛ̀ ‘airplane’
* úmɛ̀ʔɛ̀-nɛ̀ (úmɛ̀hɛ́ne) ‘trees’; cf. úmɛ̀ʔɛ̀ ‘tree’

7.3.5 The plural suffix -⁽ˀ⁾hɨ̀

The pluralizer -⁽ˀ⁾hɨ̀ (-hjɨ) follows pronoun + classifier expressions, as in the following:

* tʰɛ́ːʔɛ̀-⁽ˀ⁾hɨ̀ (tʰɛ́ːʔɛ̀-⁽ˀ⁾hɨ̀) ‘those trees (plants,…)’; cf. tʰɛ́ːʔɛ̀ (tʰɛ́ːʔɛ̀) ‘that tree (plant,…)’
* tʰːʔɛ́-⁽ˀ⁾hɨ̀ (tʰːʔɛ́-⁽ˀ⁾hɨ̀) ‘these slabs (planks, benches, machetes,…)’; cf. tʰːʔɛ́ (tʰːʔɛ́) ‘that slab (plank,…)’

We do not know why -ːnɛ fail to produce a long vowel in this case.
7.3. NUMBER

* kʰé-há-ʔhi (kéjahjì) ‘which houses (shirts, pants,...)’; cf. kʰé-há (keejá) ‘which house (shirt,...)’
* tʰàˀŋɛ́-ʔàːmɨ́-hɨ̀ (tahñéhaamìjì) ‘my papers (books, notebooks,...)’; cf. tʰàˀŋɛ́-ʔàːm (tahñéhámì) ‘my paper (book,...)’
* tsʰì-mí-ʔhi (tsímìhjìjì) ‘other canoes (cars, airplanes,...)’; cf. tsʰì-mí (tsímì) ‘other canoe, (car,...)’
* á-ʔàːmɨ́-ʔhi (áhaamìjì) ‘those aforementioned papers (books, notebooks,...)’; cf. á-ʔàːmì (áhaamì) ‘that aforementioned paper (book,...)’
* á-ʔɛ̀-ʔhi (áhehjìjì) ‘those aforementioned trees (plants,...)’; cf. áː-ʔɛ̀ (aàhe) ‘that aforementioned tree, (plant,...)’

Likewise, it is used with bound inanimate modifiers, as in the following:

* átʰɛ́ɾɛ́ɛ̀-mɨ́-hɨ̀ (átéréemìjì) ‘worthless canoes (cars, airplanes,...)’; cf. átʰɛ́ɾɛ́ɛ̀-mɨ̀ (átéréemì) ‘worthless canoe, (car,...)’
* áːβʲɛ̀-há-ʔhi (áivyejáhjìjì) ‘burned houses (shirts,...)’ cf. áːβʲɛ̀-hà (áivyejá) ‘burned house (shirt,...)’

(438) Êwahjì muurá nitsúwááné oke u ájcuwáhjì.

í-kpà-ʔhi mɯ̀ːɾá nɨʦʰɯ́-kpá-ːnɛ́

this-⟨slab⟩-pl confirm knife-⟨slab⟩-pl

A [ò-kʰɛ̀ ɯ̀ S
Saˣkʰɯ̀]-kpá-ˀhɨ̀

I-objAnyou give -⟨slab⟩-pl

‘Look, these are the machetes that you gave me.’

Finally, -⁽ˀ⁾hɨ̀ (-hjì) may pluralize an animate noun to indicate a large quantity or exhaustiveness, as in the following:

* ti-tʰɛ̀-ʔhi (diityéhjì) ‘all of them’; cf. ti-tʰɛ̀ (diitye) ‘they’
* ɪ-ᵗʰɛ̀-ʔhi (ɪjtyehjì) ‘all of these’ cf. ɪ-ᵗʰɛ̀ (ɪjtye) ‘these’

(439) Êmiájitéhjìubá diftje.

ímaⁿ-xtnʰɛ̀-ʔhi-úpá ti-tʰɛ̀

All of them may be good.

proper-⟨AnPl⟩-pl-prob that-⟨AnPl⟩

(440) Taabóobée mítjane chémeméhjìke taabó cóómíyií.

tʰapó-ːpɛ́ mítʰà-nɛ̀ʧʰɛ́mɛ̀-mɛ́-ˀhɨ̀-kʰè
doctor-⟨SgM⟩ all-⟨ø⟩ be.ill-⟨AnPl⟩-pl-objAn

tʰàːpó-ʔ kʰô:mí-jìjì
cure-⟨t⟩ town-oblIn

‘The doctor treated all the sick people in the town.’

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In 441a pʰɛˣkʰo ‘night’ is a noun, so is pluralized with -ːnɛ. By contrast, in 441b pʰɛˣkʰo ⟨night⟩ is a classifier that, when combined with tʰɛ-‘that’, forms a qualifier phrase (as explained in section 7.8.2); therefore it is pluralized with ʔhi.

(441) a. pʰɛ́ˣkʰò-nɛ̀ (péjcone) ‘nights’
   night-pl
b. tʰɛ́-pʰɛ̀ˣkʰó-ʔhɨ̀ (tépejcóhji) ‘those nights’
   that-(night)-pl

Likewise, in 442a tʰɯtʰakʰo ‘contents of a pot’ is a noun, so is pluralized with -ːnɛ. By contrast, in 442b ňɛ̀ˀní-ɲɛ (bad-⟨ø⟩) ‘dirty one’ is a qualifier phrase so is pluralized with ʔhi.

(442) a. tʰɯ́tʰákʰó-ìˀʧó-nɛ̀ (tútácóihllóne) ‘cooking pots’
   cook-(pot)-pl
b. í Ⓐ ňɛˊní-ɲɛˊ-ʔhɨ̀ ‘the dirty ones (from among them)’
   self bad-(⟨ø⟩)-pl

### 7.3.6 The plural suffix -ʔane ‘various’

The pluralizer -ʔane (-hañe) ‘various’ indicates variety. It can be used with concrete nouns, as in example 443; with nonfinite verbs, as in 416 (above) and 444; and with locations, as in 445 and 446:

(443) háː-ʔàɲɛ̀ (jááhañe) ‘various houses’
   shelter-var
(444) tʰɛᵐɛ́-ʔánɛ̀ (cheméháñe) ‘various sicknesses’
   sickness-var
(445) kʰámɛ̀-ʔánɛ̀ (cáámeháñe) ‘above (in various places)’
   above-var
(446) Diityé únúháñerícyà diícya.
   tì-tʰɛ́ Ⓐ ňúńù-ʔánɛˊ-ɾí-kʰà t-i:kʰà
   that-(AnPl) beside-var-oblIn-doubt youImp-be
   ‘Remain beside them.’

Finally, -ʔánɛ ‘various’ is used with plural nouns to indicate diversity:

(447) i já-mɛ̀-ʔánɛ̀ (iyámeháñe) ‘varieties of animals’
   animal-(AnPl)-var
(448) mɨ́múmáñá-ʔánɛ̀ (mɨ́múmáaháñe) ‘types of people’
   people-var
(449) pʰíː-mɛ̀-ʔánɛ̀ (píímyeháñe) ‘types of ants’
    ant-⟨AnPl⟩-var

7.3.7 The plural suffix -βa

The pluralizer -βa (-va) ‘plQ’ is used only with numeral phrases and other expressions referring to quantities (such as those described in section 7.5). Examples follow:

(450) mítʰá-mɛ̀-βà (mítyámeva) ‘many beings (AnPl)’
    big/many-⟨AnPl⟩-plQ

(451) pʰíβá-mɛ̀-βà (pívámeva) ‘numerous beings (AnPl)’
    numerous-⟨AnPl⟩-plQ

(452) pʰà-mɛ́-βà (pamévére) ‘all types of beings (AnPl)’
    all-⟨AnPl⟩-plQ-only

(453) múr-ʔú-mɛ̀-βà (¿Múhdúmevá?) ‘How many
    how.many-⟨like⟩-⟨AnPl⟩-plQ

(454) a. tʰé-ʔú-mɛ̀-βà (téhdúmeva) ‘that many (AnPl)’
    that-⟨like⟩-⟨AnPl⟩-plQ

b. tʰé-ʔú-ḵpà-βà (téhdúwava) ‘that many slabs
    that-⟨like⟩-⟨slab⟩-plQ (planks, tables,…)

For the numbers 3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19 and 20, -βà ‘plQ’ follows the classifier.8 Examples follow:

(455) pʰá-pʰìˀʧʰɯ́ː-ʔàːmɨ́-βà (pápihchúúhamevá) ‘three papers
    all-pile.up-⟨leaf⟩-pl (leaves,…)

pʰínex-ʔóʦʰɨ́-mɛ̀-βà (píínehójtsmeva) ‘four people
    half-per-⟨hand⟩-⟨AnPl⟩-pl (or animals)

tsʰá-ʔóʦʰɨ́-nɛ̀-βà (tsáhojtsneva) ‘five things
    one-⟨hand⟩-⟨ø⟩-pl

8Because of how numeral phrases are formed, as explained in section 7.7.1, the numeral phrases for these numbers are plural as opposed to singular or dual. This is easier to visualize when charted as follows:

<table>
<thead>
<tr>
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<th>dual</th>
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<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
</tbody>
</table>

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7.4 Suffixes that modify nouns


7.4.1 -coba ‘augment’

Suffixed to a noun phrase, -kʰɔpà (-coba) ‘augment’ indicates that its referent is large. The host’s final syllable must bear high tone to avoid violating the ʰLLX constraint; see section 3.10.

(456) a. ɯ́mɛ́-ʔɛ́-kʰòpà  (úméhécoba) ‘big tree’
    tree-(tree)-aug
b. ɯ́mɛ́-ʔɛ́-kʰòpá-nɛ̀ (úméhécobáne) ‘big trees’
    tree-(tree)-aug-pl

Note that -kʰɔpà directly follows and modifies the noun phrase referring to a type of tree. Further note that, in 456b, the pluralizer follows -kʰɔpà. However, -kʰɔpà may follow the pluralizer, in which case it enhances the plurality of the referent:9

(457) a. ɯ́mɛ̀-ʔɛ́ː-nɛ́-kʰòpà  (úmehéénécoba) ‘many trees’
    tree-(tree)-pl-aug
b. kpáˣpʰíː-mɯ́-kʰòpà (wajpíímúcoba)  ‘many men (or male animals)’
    men-(AnPl)-aug

Note the alternate orders of -kʰɔpà ‘augment’ and -mɯ ‘plAn’ in 458 (where the G over the vowel indicates the genitive low tone):10

(458) a. tʰά mɛːnǐ-kihɔpá-mù  (taméënícobámu) ‘my big pigs’
    my pig-aug-plAn
b. tʰά mɛːnǐ-mù-kihɔpà  (támeenímúcoba) ‘my very many pigs’
    my pig-plAn-aug


10In 458a -kʰɔpà ‘augment’ is not part of the stem so the genitive tone 0 docks on the modifier. By contrast, in 458b -mù ‘plAn’ is part of the stem so 0 docks on the head’s initial syllable.
7.4. SUFFIXES THAT MODIFY NOUNS

7.4.2 -wuu ~ -wu ‘diminutive, small, few’

Suffixed to a noun phrase, -kpú(σ) (-wuu ~ -wu) ‘diminutive’ indicates that its referent is small. The first of its vowels always bears low tone. When the second vowel is followed by another suffix, it always projects a syllable bearing high tone. When this suffix is word final, the second vowel is dropped. Examples follow:

(459) a. úmɛ̀-ʔɛ́-kpú₁₁ (úmehéwu) ‘small tree’
   tree-(tree)-dim
   b. úmɛ̀-ʔɛ́-kpúú-nè (úmehéwuúne) ‘small trees’
      tree-(tree)-dim-pl

(460) tíː-ʔɛ́-kpú (díbyéwu) ‘he (who is) small’
      that-(SgM)-dim

(461) méːní-kpúúú-ré-húkú (mééniwuúréjuco) ‘ONLY the little pigs’
      pig-dim-only-focus

As explained above for -kʰopa ‘augment’, -kpú(σ) ‘diminutive’ may follow the pluralizer, in which case it diminishes the plurality of the referent:

(462) a. úmɛ̀-ʔɛ́-nɛ́-kpú (úmehéén̂wu) ‘few trees’
      tree-(tree)-pl-dim
   b. úhɛ́-mɛ́-kpú (uhjémwu) ‘few (AnPl)’
      few-(AnPl)-dim

7.4.3 -uvu ‘maximal’

Suffixed to a noun phrase, -uvu (-uvu) ‘max’ indicates that the host’s referent is in some maximal, exhorbitant, finalized, or surprising state. In 463 it indicates that the host’s referent no longer exists.₁²

(463) a. niːβɯkpå (=uvu) (níuvwáuvu) ‘dead deer’
      deer-max
   b. tʰáː kʰání-uvu (táácamíuvu) ‘my deceased father’
      my father-max

₁¹ This does not undergo FLTS, probably because the final /u/ is lexically marked as low.  
₁² -uvu ‘max’ generally imposes low tone on the preceding syllable, as in 463a; in 463b and 464 it fails to do so because of the exceptional tonal character of the root.
In 464 it indicates that the host’s referent has not appeared for a considerable length of time:

(464) ¿Kiátú áánúuvu tsááhi?

kʰìá-tʰú áːnú-tʰβ̀u tʰáː-ʔì

where-sou this(SgM)-max come-(t)

‘From whence does this one (SgM proximate) come (after such a long time)’?

- Twig ‘max’ may also occur on a qualifier (i.e., an adjective followed by a classifier); see examples 519 and 520, page 229.

### 7.5 Quantifier phrases

A **quantifier** is formed by adding a classifier to one of the following roots: 13 mitʰa ‘many, much, big’, ajä ‘little, few’, tʰɑʔjɯ ‘little, few’, uʰhɛ ‘little, few’, pʰiβa- ‘numerous’, or pʰa- ‘all, complete’. (The last two are bound roots.)

(465) uʰ’hɛ́-mɛ̀-βà (uhjémeva) ‘few’

toʔjɯ '(AnPl)-plQ

uʰ’hɛ́-mɛ̀ (Uhjéme.) ‘They are few.’

(AnPl)

In many cases the classifier is -nè ⟨ɔ⟩, as in 466:

(466) mitʰà-nè (many-⟨ɔ⟩ mìtyane) ‘many (things)’

pʰá-nè-ːɾɛ̀ (all-⟨ɔ⟩-only pàneére) ‘all (things)’

### 7.6 Conjoining noun phrases

There are two ways to conjoin noun phrases (including proper nouns and pronouns). First, -ma ‘with’ can be added to the second of two phrases. In this case the first generally bears a pluralizer corresponding to the total number of referents of the entire phrase. For example, in 467 hoáà ‘John’ bears -ma ‘with’ and pʰɛ́ːtòroró ‘Peter’ bears -muːtsi ⟨DuM⟩:

(467) Péédorómuṭsí Jóááma péé téhullévu.

pʰɛ́ːtòːrò-muːtsi hóáː-ːmà pʰɛ́ː-ʔè-ʔuːtʃɛ-βůr

Peter-(DuM) John-with go-(t) that-(yonder)-goal

‘Peter and John went over yonder.’

13 The inanimate indefinite pronouns formed from tʰa ⟨ɔ⟩- ‘one’ or tʰi ⟨ɔ⟩- ‘some, other’ described in section 8.5.2 are not quantifiers.
That the first of conjoined elements bears the number and gender marking for the whole phrase suggests that the first heads the phrase. This is confirmed by case marking: the first member bears the object case marker. For example, in 468 -kʰɛ ‘objAn’ occurs on pʰɛːtòrò but not on hóáː:

(468) Péédorómútsikye Jóááma ájtyúmiibe.

pʰɛːtòrò-mútsʰì-kʰɛ hóáː-mà átʰúmiː-pê ‘He saw Peter Peter-DuM-objAn John-with see-(SgM) and John.’

The second way to conjoin noun phrases is by listing items, adding a mora to each, and following the list with one of the following “summation” words:

(469) ě-ˀtɯ́-mɛ́-(’hi) (éhdumehjì ̃ éhdume) ‘that many that-like-(AnPl)-(pl) (animate)’
ě-ˀtɯ́-nɛ̀-(’hi) (éhdunehjì ̃ éhdune) ‘that many that-like-(Ø)-(pl) (inanimate)’
fʰkʰlà-mɛ́-(’hi) (íjcyámehjì ̃ íjcyáme) ‘these be-(AnPl)-(pl) (animate)’
fʰkʰlà-nɛ̀-(’hi) (íjcyánehjì ̃ íjcyáne) ‘these be-(Ø)-(pl) (inanimate)’

In the following examples the summation word bears case marking appropriate to the grammatical relation of the noun phrases being conjoined—nominative in 470 and accusative in 471 and 472:

(470) Péédoroo Jóáaá Perípee éhdume péé téhullévu.


Compare examples 471 and 472. Some speakers prefer -kʰɛ ‘objAn’ on each member, as in 471, while others prefer that it not to be there, as in 472:

(471) Íñáhbekee íñáállekee ɨ́ ɨ́ tsɨ́ ɨ́ mekee íjcyámeke tsajtyéébe téhullévu.

[í ̃ G já-ˀpɛ̀ ]-kʰɛː self-sib-(SgM)-objAn-and [í ̃ G jáː-tʃé ]-kʰɛː self-sib-(SgF)-objAn-and

14In the case of pʰɛːtòrò and pʰɛ́ːρípʰɛ̀ the addition of a mora simply lengthens the final vowel. However, with hóáː, the additional mora is a low following two high tones, so undergoes FLTS.

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CHAPTER 7. NOMS AND NOUN PHRASES

In 472, the object is a single relative clause in which each conjunct is a complement of íˣkʲʰa ‘be’, while in 471 each conjunct is an object of tsʰaˣtʲʰɛ ‘take’.

7.7 Numeralphrases

Table 7.3 lists Bora numeral phrases from one to twenty. The inanimate ones bear the classifier -nɛ (ø) but this could be replaced by another inanimate classifier. Section 7.7.1 deals with how these numeral phrases are formed, and section 7.7.2 explains a rather remarkable fact about how nouns agree with a numeral phrase.

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<th>GEN</th>
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<td>mí-nɛ́-ːkʰùùú</td>
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7.7. NUMERAL PHRASES

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<td></td>
<td></td>
<td>ɪɲɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-nɛ̀-βà</td>
</tr>
<tr>
<td>10</td>
<td>inan</td>
<td>anim</td>
<td>tˢʰá-ʔóˑʦʰɨˑ-kʰúˑ-nɛ̀-βà</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>tˢʰá-ʔóˑʦʰɨˑ-kʰúˑ-mɛ̀-βà</td>
</tr>
<tr>
<td>11</td>
<td>inan</td>
<td>anim</td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u tˢʰá-ːnɛ̀</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u tˢʰá-pʰìʧɛ̀</td>
</tr>
<tr>
<td>12</td>
<td>inan</td>
<td>anim</td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u tˢʰá-pʰìʧɛ̀</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u tˢʰá-ːnɛ̀</td>
</tr>
<tr>
<td>13</td>
<td>inan</td>
<td>anim</td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u pʰالأردنی-ئ-تʰɯ̀u tˢʰá-ːnɛ̀</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u pʰالأردنی-ئ-تʰɯ̀u tˢʰá-ːnɛ̀</td>
</tr>
<tr>
<td>14</td>
<td>inan</td>
<td>anim</td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u pʰ인-ئ-تʰɯ̀u tˢʰɨˑ-nɛ̀-βà</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mɛ́-ˣtʰɯ́-ɛ́-ʔóˣʦʰɨ́-tʰɯ̀u pʰ인-ئ-تʰɯ̀u tˢʰɨˑ-nɛ̀-βà</td>
</tr>
</tbody>
</table>

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7.7.1 The composition of numeral phrases

Numeral phrases are headed by a classifier (underlined in the examples in the tables 7.4–7.8). The inanimates will be illustrated using -ne (-ne) (ø). The animates use one of the classifiers appearing in the third column of table 6.1, page 164.

The numeral phrases are based on a metaphor of fingers, hands, and feet. This is very evident in the numerals for five, ten, fifteen, and twenty; see table 7.4.
7.7. NUMERAL PHRASES

Table 7.4 The numerals 5, 10, 15, and 20

<table>
<thead>
<tr>
<th>Numeral</th>
<th>Phrase</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>inan tsáhojtséneva</td>
<td>one -(hand) -(ø) -plQ</td>
</tr>
<tr>
<td>anim tsáhojtsémeva</td>
<td></td>
<td>‘one hand of’</td>
</tr>
<tr>
<td>10</td>
<td>inan tsáhojtsícúneva</td>
<td>one -(hand) -(ø) -plQ</td>
</tr>
<tr>
<td>anim tsáhojtsícúmeva</td>
<td></td>
<td>‘two hands of’</td>
</tr>
<tr>
<td>15</td>
<td>inan tsahójtsícuma tsájtuháneva</td>
<td>one -(hand) -(ø) -plQ</td>
</tr>
<tr>
<td>anim tsahójtsícuma tsajtúháácyúmeva</td>
<td></td>
<td>‘along with two hands, a foot of’</td>
</tr>
<tr>
<td>20</td>
<td>inan tsahójtsícuma tsajtúháácyúneva</td>
<td>one -(hand) -(ø) -plQ</td>
</tr>
<tr>
<td>anim tsahójtsícuma tsajtúháácyúmeva</td>
<td></td>
<td>‘along with two hands, two feet of’</td>
</tr>
</tbody>
</table>

pʰà- ‘all’ may be used instead of tsʰà- ‘one’ in expressing the numbers for ten, fifteen and twenty:

(473) a. páhojtsícúmeva
   pʰáʔòˡʦʰʰ-kʰúmɛ̀βà ‘ten beings (AnPl)’
   b. pahójtsícuma tsajtyuháwava
   c. pahójtsícume tsajtyúháácyúneva
   a. pʰáʔòˡʦʰʰ-kʰúmɛ̀βà ‘ten beings (AnPl)’
   b. pʰàʔòˡʦʰʰ-kʰúmɛ̀ʦʰᵃᵗʲʰᵘʔᶠᵃβà ‘fifteen slabs, tables,…’
   c. pʰàʔòˡʦʰʰ-kʰúmɛ̀ʦʰᵃᵗʲʰᵘʔᵃ:kʰ⁻úⁿɛ̀βà ‘twenty things’

The numeral phrases for one through four are illustrated in table 7.5.
Table 7.5 The numerals 1–4

1 inan  tsane  
  tsʰà-nê  
  one-⟨Ø⟩  
anim masc  tsáápi  
  tsʰàː-pʰi  
anim fem  tsáápile  
  tsʰáː-pʰiː-ʧê  

| 1 | ‘one’ |

2 inan  míñéeécuú  
  mí-nêː-kʰûrû  
  two-⟨Ø⟩-du  
anim masc  mítyétsií  
  míː-ʧʰɛ́ʦʰìí  
anim fem  mítyépiːf  
  míː-ʧʰɛpʰiː  

| 2 | ‘two’ |

3 inan  pápihchúúneva  
  pʰá-pʰiːʧʰûː-nêː-βà  
  all-piled.up-⟨Ø⟩-plQ  
anim  pápihchúúmeva  
  pʰápʰiːʧʰûː-ːmêː-βà  

| 3 | ‘piled up’ |

4 inan  pɨ́e neehójtsɨ neva  
  pʰîːnɛ́-ɛ̀-ʔóˣʦʰɨ́-nêː-βà  
  half-per-⟨hand⟩-⟨Ø⟩-plQ  
anim  pɨ́e neehójtsɨ meva  
  pʰîːnɛ́-ɛ̀-ʔóˣʦʰɨ́-mêː-βà  

| 4 | ‘half a hand of’ |

Some speakers express ‘three’ as a combination of the numeral phrases for ‘two’ and ‘one’, as in the following:

(474) a. míː-ʧʰɛ́ʦʰìí  
  tsʰàː-pʰiː:  
  (mítyétsií tsáápii)  
  ‘three (SgM)’
  〈DuM〉 〈SgM〉

b. míː-ʧʰɛpʰiː  
  tsʰáː-pʰiːʧê:  
  (mítyépiːf tsáápilee)  
  ‘three (SgF)’
  〈DuF〉 〈SgF〉

c. míː-nêː-kʰûrû  
  tsʰà-nê  
  (míñéécuú tsane)  
  ‘three things’
  〈Ø〉-du 〈Ø〉
The base for the numerals from six to nine is íɲèⁿkʰúèʔòtsʰítʰù́ ‘from the hand on this side’. To this are added the phrases for the digits given above in table 7.5; see table 7.6.

<table>
<thead>
<tr>
<th>Table 7.6 The numerals 6–9</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 inan</td>
</tr>
<tr>
<td>íñejcúehójtsitu tsáni</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>this-side-per-(hand)-sou</td>
</tr>
<tr>
<td>one(ø)</td>
</tr>
<tr>
<td>anim masc</td>
</tr>
<tr>
<td>íñejcúehójtsitu tsápi</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>this-side-per-(hand)-sou</td>
</tr>
<tr>
<td>one(ø)</td>
</tr>
<tr>
<td>fem</td>
</tr>
<tr>
<td>íñejcúehójtsitu tsápille</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>'one from the hand on this side'</td>
</tr>
<tr>
<td>7 inan</td>
</tr>
<tr>
<td>íñejcúehójtsitu míñéeckú</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>this-side-per-(hand)-sou</td>
</tr>
<tr>
<td>two(ø)-du</td>
</tr>
<tr>
<td>anim masc</td>
</tr>
<tr>
<td>íñejcúehójtsitu míñyétsí</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>fem</td>
</tr>
<tr>
<td>íñejcúehójtsitu míñyépí́</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>'two from the hand on this side'</td>
</tr>
<tr>
<td>8 inan</td>
</tr>
<tr>
<td>íñejcúehójtsitu pápichúúneva</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>this-side-per-(hand)-sou</td>
</tr>
<tr>
<td>piled.up(ø)-plQ</td>
</tr>
<tr>
<td>anim</td>
</tr>
<tr>
<td>íñejcúehójtsitu pápichúúneva</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>'piled up from the hand on this side'</td>
</tr>
<tr>
<td>9 inan</td>
</tr>
<tr>
<td>íñejcúehójtsitu pʰíñehojétsíneva</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>this-side-per-(hand)-sou</td>
</tr>
<tr>
<td>half(ø)-plQ</td>
</tr>
<tr>
<td>anim</td>
</tr>
<tr>
<td>íñejcúehójtsitu pʰíñehojétsíneva</td>
</tr>
<tr>
<td>íɲèⁿkʰúèʔòtsʰítʰù́</td>
</tr>
<tr>
<td>'half a hand from the hand on this side'</td>
</tr>
</tbody>
</table>
The base for the numerals from eleven to fourteen is mɛ́ˣᵗʰúʔâᵗʰǔ<br>‘from our foot’. To this are added the phrases for the digits given above in<br>table 7.5, as seen in table 7.7.

### Table 7.7 The numerals 11–14

<table>
<thead>
<tr>
<th>Numeral</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>inan</td>
<td>mɛ́ˣᵗʰúʔà-tʰų ʦʰà-nɛ̀ .sap one-Ø</td>
</tr>
<tr>
<td></td>
<td>anim masc</td>
<td>mɛ́ˣᵗʰúʔà-tʰų ʦʰà-pʰì</td>
</tr>
<tr>
<td></td>
<td>fem</td>
<td>mɛ́ˣᵗʰúʔà-tʰų ʦʰáː-pʰì-ʧɛ̀</td>
</tr>
<tr>
<td>12</td>
<td>inan</td>
<td>mɛ́ˣᵗʰúʔà-tʰų mí-ɲɛ́-kʰũṹ .sap two-Ø-du</td>
</tr>
<tr>
<td></td>
<td>anim masc</td>
<td>mɛ́ˣᵗʰúʔà-tʰų míː-tʰɛ́ʦʰìí</td>
</tr>
<tr>
<td></td>
<td>fem</td>
<td>mɛ́ˣᵗʰúʔà-tʰų míː-tʰɛ́pʰɨ̀ɨ́</td>
</tr>
<tr>
<td>13</td>
<td>inan</td>
<td>mɛ́ˣᵗʰúʔà-tʰų pʰápʰìʔʧʰũú-ɲɛ̀-βà .sap piled.up-Ø-plQ</td>
</tr>
<tr>
<td></td>
<td>anim</td>
<td>mɛ́ˣᵗʰúʔà-tʰų pʰápʰìʔʧʰũú-mɛ̀-βà</td>
</tr>
<tr>
<td>14</td>
<td>inan</td>
<td>mɛ́ˣᵗʰúʔà-tʰų pʰíːnɛ́-ʔóˣʦʰɨ́-nɛ̀-βà .sap half-per-Ø-hand-Ø-plQ</td>
</tr>
<tr>
<td></td>
<td>anim</td>
<td>mɛ́ˣᵗʰúʔà-tʰų pʰíːnɛ́-ʔóˣʦʰɨ́-mɛ̀-βà</td>
</tr>
</tbody>
</table>
7.7. NUMERAL PHRASES

The base for the numerals from sixteen to nineteen is íɲɛ̀ˣkʰúɛ́-ˣtʰúʔà-tʰù ‘from the foot on this side’. To this is added the phrases for the digits given above in table 7.5; see table 7.8.

Table 7.8 The numerals 16–19

<table>
<thead>
<tr>
<th>Number</th>
<th>Gender</th>
<th>Numerical Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>inan</td>
<td>íñejcúéjtúhatyu tsane</td>
</tr>
<tr>
<td></td>
<td>anim</td>
<td>íñejcúéjtúhatyu tsáápi</td>
</tr>
<tr>
<td></td>
<td>fem</td>
<td>íñejcúéjtúhatyu tsáápille</td>
</tr>
<tr>
<td>17</td>
<td>inan</td>
<td>íñejcúéjtúhatyu míñeécuú</td>
</tr>
<tr>
<td></td>
<td>anim</td>
<td>íñejcúéjtúhatyu mítyétsí</td>
</tr>
<tr>
<td></td>
<td>fem</td>
<td>íñejcúéjtúhatyu mítyépií</td>
</tr>
<tr>
<td>18</td>
<td>inan</td>
<td>íñejcúéjtúhatyu pápihchuúneva</td>
</tr>
<tr>
<td></td>
<td>anim</td>
<td>íñejcúéjtúhatyu pápihchuúmeva</td>
</tr>
<tr>
<td></td>
<td>fem</td>
<td>íñejcúéjtúhatyu pápihchuúmeva</td>
</tr>
<tr>
<td>19</td>
<td>inan</td>
<td>íñejcúéjtúhatyu pííñeéhojtsíneva</td>
</tr>
</tbody>
</table>

The numeral phrases given above are the standard forms used by the Iñeje clan, but they do shorten them in certain contexts, when the meaning is clear.

It is possible to form numeral phrases that refer to numbers larger than twenty, but these are long and complicated. For that reason many speakers use numbers borrowed from Spanish, adding to these the classifier of the referent. With the exception of uno ‘1’, the Spanish numbers are all treated

15 Other clans use somewhat different forms, but form the numeral phrases in the same way.
as plural. Examples follow, written in a highly assimilated form. (Most Bora speakers would now say them much as pronounced in Spanish.)

(475) dyetsitsééneva
tʰɛːtsʰɛː-nɛ̀-βà¹⁶ ‘16 things’

(476) wareetatséétějava
kpâːrɛːtʰàtsʰɛː-tʰɛː-hà-βà¹⁷ ‘47 houses (pants, shirts,...)’

(477) tsiéétó terééta tsééheva
tʰːɛːtʰːɛːtʰːɛː-ʔɛ̀-βà¹⁸ ‘136 trees (plants)’

The pluralizer -βà ‘plQ’ is used only with numeral phrases and other expressions referring to quantities, as discussed in section 7.3.7.

7.7.2 Agreement with numeral phrases

The last word of a numeral phrase bears a classifier. This classifier heads the numeral phrase. The phrase’s animacy, gender, and number are those of the final word.

When the numeral phrase quantifies another noun phrase, that phrase must agree in animacy, gender and number. For example, in 478 the numeral phrase (bracketed) ends with tsʰàː-pʰì (one-⟨SgM⟩) ‘one’, which is animate, singular and masculine. Thus the noun phrase quantified by this numeral phrase must be animate, singular and masculine, so bears -ːpʲɛ ⟨SgM⟩, although one would expect ‘dog’ to be plural:

(478) íñejcúehójtsɨtu tsaapi oohííbye
[í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣʦʰɨ̀-tʰɯ̀ tsʰà-ːpʰì] òːʔí-ːpʲɛ ‘six dogs’
this-side-per-⟨hand⟩-sou one-⟨SgM⟩ dog-⟨SgM⟩

Likewise, in 479, the final word of the numeral phrase, mǐːtʰɛ́pʰɨ̀ɨ́, is animate dual feminine, so the quantified noun phrase bears -mɯ́pʰɨ ⟨DuF⟩:

(479) íñejcúehójtsitu míítyépɨ wállemúpi
[íɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣʦʰɨ̀-tʰɯ̀ mǐː-tʰɛ́pʰɨ] kpáʧɛ-ːmɯ́pʰɨ ‘seven women’
this-side-per-⟨hand⟩-sou two-⟨DuF⟩ woman-⟨DuF⟩

In 480, the final word of the numeral phrase is animate plural (unspecified for gender) and so the quantified noun phrase bears -me ‘plAn’:

In Spanish, sixteen is approximately [dʲe.si.sé.js].
In Spanish, forty-seven is approximately [kʷa.ren.ta.if].
In Spanish, one hundred thirty-six is approximately [sʲe.n.to treⁿ.ta.if].
7.8 Adjectives

Adjectives may be derived from verbs as discussed in section 4.3.4. In this section we discuss adjectives as prenominal modifiers (7.8.1), qualifier phrases, i.e., adjectives combined with classifiers (7.8.2), predicate adjectives (7.8.3), adjectives used as adverbs (7.8.4), and suffixes added to adjectives (7.8.5).

7.8.1 Prenominal modifiers

There seem to be no cases of an adjective modifying a noun in which these are related simply by constituency, as represented in 7.2a. We will discuss three apparent counter-examples: a modifier followed by a classifier, as in 7.2b; a modifier in a genitive relationship to the modified NP, as in 7.2c; and a modifier in apposition to a preceding NP, as in 7.2d.

\[
\text{Figure 7.2 The grammatical relation of prenominal modifiers}
\]

- a. NP $\rightarrow$ Adj NP
- b. NP $\odot$ NP
- c. NP $\ominus$ NP
- d. NP $\odot$ NP

We begin in section 7.8.1.1 by illustrating 7.2b and c, using the modifier imia 'proper, of good quality'.

7.8.1.1 ìmìa 'of good quality'

In many cases a root or stem modifies a classifier. In this case the classifier heads the word or phrase, which is a single phonological phrase that respects the *LLX constraint. We will illustrate this using imia (ìmìa) ‘proper (of good quality, right, righteous, just)’ as the modifier. The examples below conform to the tone patterns of classifiers discussed in section 6.1.4, although this is not readily apparent because the lexically marked low tone
of ḫ́m stops the classifier tone from docking on the its final syllable. For example, in 481 the classifier is monosyllabic so the classifier tone should dock on the modifier’s final syllable, but this is blocked by the lexically marked low tone of ḫ́m.

(481) a. ḫ́májaa méénuúbe.
b. ḫ́máacoo tsívaábe.
   a. ḫ́mácóo hàː mɛ́ːnɯ́ː-ːpɛ̀ ‘He made a good house.’
       proper house
   b. ḫ́mácóo kʰòː ʦʰíβàː-ːpɛ̀ ‘He brought good firewood.’
       proper firewood

In other cases the modifying phrase stands in a genitive relationship to the noun (phrase) that it modifies (much like English of good quality stands in relation to product in a product of good quality). The genitive tone pattern (as given in table 9.1) is followed although, just as for the classifier tone pattern, this is not readily apparent because the lexically marked low tone of ḫ́m blocks the genitive tone from docking on the final syllable.

As a first example, consider 482:

(482) ḫ́máx c kʰò (ɨ́máj coó) ‘good firewood’
       proper firewood

Note that the head’s preaspiration surfaces in the coda of the modifier’s final syllable. This happens with certain nouns when they head a genitive construction, as discussed in section 2.4.3.

In 483 and 484 the heads are bisyllabic and—conforming to the pattern of table 9.1—bear high tone on the first syllable:20

(483) ḫ́má máxʧʰò (ɨ́má májcho) ‘good food’
       proper eat
   ḫ́má átò (ɨ́má ádo) ‘good drink’
       proper drink

(484) ḫ́má wájyú teene íjcyatúne.
   [ɨ́má kpáhú]\ tʰɛː-ːnɛ̀ tʰkʰà-tʰú-ːnɛ̀ ‘That is not real love.’
       proper love that-(Ø) be-neg-(n)

20This presents an interesting wrinkle. Because the heads are nonfinite verbs, we expect the nonfinite low tone to occur on their initial syllables. This is not the case, presumably because the genitive tone pattern behaves as though there were a low tone on the modifier’s final syllable, by virtue of which the head’s initial syllable must bear high tone.
In 485, which are possessed nouns, and 486, which are possessed non-finite verbs, the head is trisyllabic and bears the genitive low tone on the first syllable:

(485) a. ɨ́mⁿú-³pʰákʰò (ɨmiá nujpácyo) ‘good water’
    proper water-(liquid)

b. ɨ́m kpáh álámù-mà (ɨmiá wajyámu-ma) ‘with good clothes’
    proper clothes-with

c. ɨ́m amó-mè-kʰè (ɨmiá amómeke) ‘good fish
    proper fish-(AnPl)-objAn (AnPl, acc)’

(486) d. ɨ́m abjéhú-pè (ɨmiá avyéjuúbe) ‘good chief’
    proper reign-(SgM)

e. ɨ́m w:petè (ɨmiá uubálle) ‘good news’
    proper tell

f. ɨ́m kʰhúwɛ́-sʰò (ɨmiá cahcújtso) ‘good beliefs’
    proper believe

g. ɨ́m ukpá:pò-hù (ɨmiá uwááboju) ‘good teaching’
    proper teach-(mouth)

h. ɨ́m ukpá:pò-ʰɛ́-kʰè (ɨmiá uwáábojtéke) ‘good teach-
    proper teach-(AnPl)-objAn ers (acc)’

In 487 the head has four syllables. It bears the genitive low tone on
the first syllable:

(487) ɨ́m ni:šúkpá-mù (ɨmiá niivúwamu) ‘good deer (plural)’
    proper deer-plAn

In 488 the head is a nonfinite verb. The nonfinite low tone (represented by N) blocks the possessive tone from docking on the head’s first syllable.

(488) ɨ́m fítsʰámɛ́ (ɨmiá íjtsaméí) ‘good thought’
    proper think

ɨ́m kpákhímɛ́ (ɨmiá wákimyɛ́) ‘good work’
    proper work

Because ɨ́m ‘proper’ and the following head conform to the tone patterns of the genitive construction, we assume that it is a genitive construction, and thus that ɨ́m and what it modifies are not related by constituency per se, but stand in a genitive relationship (possessor-possessed).
Although ímí ‘proper’ stands in a genitive relationship with the noun it modifies, the same is not true of other “adjectives.” For example, compare 485a with the ungrammatical phrase in 489.21

\[(489)^*ími \text{n}u^g{p^h{á}k^h{ó}} \quad (ími \text{nújácyo}) \text{‘good water’}
\]

good water-⟨liquid⟩

7.8.1.2 mítyane ‘much’

We now come to the third apparent counter-example, that of figure 7.2d. The modifier míthànɛ̀ (mítyane) ‘much’ precedes the noun (phrase) it modifies, as in 490a where it appears to modify míamúnàà ‘people’. However, we claim that the two words are not in a modifier-head relationship, but appositive, just as (more obviously) when the first word is headed by -mɛ ⟨AnPl⟩, as in 490b.22

\[(490)^a \text{. mítyane míamúnaa}
\]

\[(490)^b \text{. mítyame míamúnaa}
\]

\[\text{míthà } \{ \text{a. -nɛ̂ ⟨Ø} \}
\]

\[\text{many } \{ \text{b. -mɛ̂ ⟨AnPl} \}
\]

\[\text{mía lá múnàà ‘many people’ SAP people}
\]

We understand this as follows. In 490b míthành’mè would usually suffice to refer to “many people” because people are generally more topical than other collections of animate beings. Therefore 490b is a rather strange way to refer to “many people” (perhaps being reserved for cases of repair, where midstream the speaker realizes that the hearer needs clarification, so adds míamúnàà ‘people’).

By contrast, in 490a the notions of “many” and “people” are spread over two words, each of which is really a noun phrase in its own right. The first refers to “many” objects from the maximally unconstrained set established by -nɛ ⟨Ø⟩; the second word is required to refer to “people”. The point is that the notions of “many” and “people” are linked only through the structural mechanism of apposition, where -nɛ ⟨Ø⟩ plays a semantically vacuous but structurally crucial role.23

---

21 One may say the following, using apposition as described in section 7.8.1.2:

\[ími-nɛ̂ \quad A \text{núr}^g{p^h{á}k^h{ó}} \quad \text{‘good water’}
\]

good-⟨Ø⟩ water-⟨liquid⟩

Or one may say the following, using a predicate adjective construction:

\[ími \quad núr^g{p^h{á}k^h{ó}} \quad \text{‘The water is good.’}
\]

good water-⟨liquid⟩

22 490a is more common than 490b. It may initiate a sentence whereas 490b may not.

23 A further example from the translation of the New Testament into Bora follows:
The following example illustrates the same phenomenon but with pʰɛ̀βɛ́-nɛ̀ ‘ordinary’:

(491) Pevéne majchóré majchóme.
    pʰɛ̀βɛ́-nɛ̀ mànʧʰó-rɛ́ mànʧʰó-mɛ̀ ‘They eat only ordinary- ⟨ø⟩ food-only eat- ⟨AnPl⟩ ordinary food.’

7.8.2 Qualifier phrases

Bound adjectival stems combine with classifiers to form:

- pronouns (see chapter 8),
- numeral phrases (see section 7.7),
- sentence-initial thematic connectives (see section 19.1), and
- qualifier phrases, now to be discussed.

Qualifier phrases characterize persons, animals, or things. They are formed by combining an adjectival root (either free or bound) with a classifier, and are animate or inanimate according to the classifier used. Because the classifier heads the phrase, these are actually noun phrases; we will nonetheless refer to them as “qualifiers” or “adjectives”. Qualifier phrases may occur with or without an accompanying noun.

The form of qualifier phrases

Animate qualifier phrases are formed using the animate classifiers of column 2 of table 6.1, page 164. For example, ímǐa ‘just, good’ is an independent adjective; from it qualifier phrases can be formed as in 492:

(492) a. ímǐá:pɛ̀ (ímǐáábe) ‘good (SgM)’
    b. ímǐá+tʰɛ́pʰi (ímǐájtepi) ‘good (DuF)’
    c. ímǐá+tʰɛ̀ (ímǐájte) ‘good (AnPl)’

Inanimate qualifier phrases are formed by adding classifiers referring to the shape (or physical form) of the object being characterized. The classifier may be followed by -kʰu ‘duin’ or -(?)hi ‘plural’; for example, ímǐa ‘proper (of good quality, right, righteous, just)’ and -ʔɛ ‘tree, plant’ can be combined to make the qualifier phrase ímǐá-ʔɛ ‘good tree (plant,…)’.

Examples follow for -kpa ⟨slab⟩ in 493 and -mi ⟨canoe⟩ in 494:

mítʰà-mɛ̀ pʰàɾìʦʰɛ́ó Gì mʲɛ́mɛ́íˣkʲʰá-ʔà mɯ́nàà
much- ⟨AnPl⟩ Pharisee self name be- ⟨group⟩ people
‘many of the group who were called Pharisees’
(493) a. ímiáː-kpà (ímiááwa) ‘good slab (plank,…)’
   b. ímiá-kpáː-khù (ímiáwáácu) ‘two good slabs (tables,…)’
   c. ímiá-kpáː-hì (ímiáwáhji) ‘good slabs (tables,…)’

(494) a. átʰɛ́ɾɛ́-ɛ̀-mɨ́ (átéréemɨ) ‘worthless canoe (ship, car,…)’
   b. p átʰɛ́ɾɛ́-ɛ̀-mɨ́-kʰɯ̀ (átéréemɨcu) ‘two worthless canoes (ships, cars,…)’
   c. átʰɛ́ɾɛ́-ɛ̀-mɨ́-hɨ̀ (átéréemɨjɨ) ‘worthless canoes (ships, cars,…)’

Additional examples follow:

(495) Táñáhbé hajchóóbe.
   [tʰá Gɲáˀpɛ́ G aˣʧʰó-ːpɛ̀] ‘He is the same height as my brother.’

(496) Ó imíllé tsaaja jaa óóma u méénune íjyá hajchója.
   ó imíʧɛ́-ʔìʦʰàː-hà hàː óː-màɯ̀ mɛnɯ̀-nɛ̀ I want ⟨t⟩ one ⟨ø⟩ house
   i-hʲá aˣʧʰó-hà that ⟨house⟩ same.size ⟨house⟩
   ‘I want you to make me a house the same size as that house.’

A fairly complete list of bound adjectival stems is given in appendix C,
page 413.

The use of qualifier phrases

Qualifier phrases can be used like other noun phrases to refer to persons, animals, or things. They are not used to introduce a new participant; they are only used when the context provides a referent. With sufficient context “one” could be the subject, as in 497:

(497) ímiáː-pé tsʰáː-ʔì (Ímiáábé tsááhi.) ‘One who is
   proper ⟨SgM⟩ come ⟨t⟩ good comes.’

Or they can be the direct object:

(498) mít’hà-nè màxʧʰó-mè (Mítyane majchóme.) ‘They ate a lot.’
   much ⟨ø⟩ eat ⟨AnPl⟩

In most languages an adjective modifies a noun by means of constituency: [NP Adjective Noun]. However, in Bora adjectives are made
into qualifier phrases and the nouns they modify are in apposition. For example, consider 499 in which kpàʰpʰi ‘man’ is in apposition to ímiáːpé ‘good one’:

(499) Ɨ́mɨáábé wajpi tsááhi.

\[
\text{ímiáːpé} \quad _\text{proper-⟨SgM⟩} \quad _\text{man}\]
\[
\text{kpàʰpʰi} \quad _\text{come-⟨t⟩} \quad _\text{tsʰáː-ʔì} \quad 'A good man comes.'
\]

And this is the general case: qualifier phrases “modify” by the mechanism of apposition: QualifierP \(\text{A}\) NP. Classifiers play the crucial roles of (1) heading the qualifier phrase \(^{24}\) and (2) linking them referentially. For further discussion see section 7.1.

### 7.8.3 Predicate adjectives

An adjective may be the predicate of a clause, stating that the subject has whatever characteristic is indicated by the adjective. Predicate adjectives precede the subject. For example, imi ‘good’ is the predicate of 500:

(500) ími oó.  öd (Ímí oód.)

\[
.gz{I}_\text{am good.}
\]
\[
.gz{I}_\text{am in good health.'}
\]

Predicate adjectives have high tones on all syllables unless followed by -\(\text{l}\) kpú(u) ‘diminutive’, as in example 510.

Predicate adjectives end with a glottal stop,\(^{25}\) as in 501a and b:

(501) a. ími tì-pè (Ímí dííbye.) ‘He is good.’

\[
.gz{I}_\text{good-⟨t⟩}
\]\n
b. ími-jé tì-pè (Ímíhyé dííbye.) ‘He is only good.’

\[
.gz{I}_\text{good-only that-⟨SgM⟩}
\]

When the clitic -rè \(\sim\) -jè follows, the glottal stop remains:

(502) ími-jè tì-pè (Ímíhyé dííbye.) ‘He is healthy.’

\[
.gz{I}_\text{good-only-⟨t⟩ that-⟨SgM⟩}
\]

However, if -kpú ‘diminutive’ follows, the glottal stop is dropped:

(503) ími-kpú tì-pè (Ímwú dííbye.) ‘He is really good-dim that-⟨SgM⟩

\[
.gz{I}_\text{good (beautiful).}
\]

With monosyllabic roots, the /i/ of -\(\text{l}\) ?i ⟨t⟩ may undergo FLTS:

(504) ó tó-ʔi (Ó dóóhí.) ‘I eat (meat).’

\(^{24}\) A classifier may also head the noun phrase being qualified.

\(^{25}\) This /ʔi/ may be cognate with -ʔi ⟨t⟩.
7.8.4 Adjectives used as adverbs

Some adjectives may be used adverbially. For example, in 505a ími (imi) ‘good’ is a predicate adjective modifying the subject kʰáɾakʰà ‘chicken’ but in 505b it modifies the verb mà⁻tʰóʔì ‘eat’:

(505) a. Ímí cáraca.
   b. Ímí cáraca majchóhi.

   a. ímíː kʰáɾakʰà  ‘It is a good chicken.’
      good chicken
   b. ímíː kʰáɾakʰà mà⁻tʰóʔì  ‘The chicken eats well.’
      good chicken  eat-(t)

The word order in 505b is interesting: it is as though the adverb is predicated of “the chicken eats.” To characterize the chicken as good—without “good” being interpreted as an adverb, as in 505b—it is necessary to combine ími ‘good’ with a classifier and make “chicken” appositive to the combination, as in 506:

(506) Ímiibye cáraca majchóhi.

ímiː⁻pʲɛ̀ A kʰáɾakʰà mà⁻tʰó-ʔì  ‘The good chicken eats.’
      good-(SgM)   chicken  eat-(t)

Another example of an adjective used adverbially follows:

(507) Mítyane ímíyuuvéme.

mítʰà-nɛ̀ ímíhʲɯ̀⁻βɛ́⁻mɛ  ‘They became very happy.’
      much-(ø) happy-sIn-(AnPl)

7.8.5 Suffixes added to adjectives

There are three suffixes that can be added to an adjective: -kpɯ(ː) (wu wu) ‘diminutive’ (7.8.5.1), -iʧʰo (icho) ‘somewhat’ (7.8.5.2) (the co-occurrence of these is discussed in section 7.8.5.3), and -Lɯβɯ (-uvu) ‘max’ (7.8.5.4).

7.8.5.1 -wu wu ‘diminutive, very’

The suffix -kpɯ (wu) ‘dim’ is used to enhance the meaning of its host. -kpɯ is used word finally and -kpɯu is used when some suffix follows; compare méːnǐ⁻kpɯ ‘little pig’ with méːnǐ⁻kpɯ⁻mɯ́ /méːnǐ⁻kpɯː⁻mɯ́/ ‘little pigs’.
When -kpù(ɯ) ‘dim’ follows a noun, both the noun’s final and penultimate syllables generally bear high tone, as in the examples just given. Following an adjective the form is generally #(1)....-kpù(ɯ), that is, it imposes a low tone on the adjective’s initial syllable, as in 508–509:

(508) \(\ddot{a}j\dot{a}j\dot{a}-kpù uùu (Ayáwu úú.) ‘You are very tiny.’
small-dim you

(509) \(\ddot{a}mí\dot{mí}-kpù ti:-tʃɛ̀ (Imíwu diílle.) ‘She is beautiful.’
good-dim that-(SgF)

When #(1)....-kpù(ø) ‘dim’ follows a scalar adjective, it indicates an extreme degree on the (implied) scale, as illustrated in 510:

(510) Imíwu dikt̪ixńęne.
\(\ddot{a}mí-kpù t\dot{a} ʃt̪ixńęne ‘Your baby is very
good-dim your child good (or pretty).’

Because \(\ddot{a}mí-kpù ‘very good’ is the predicate in 510, we might expect it to bear all high tones, but -kpù imposes a low tone on its host’s initial syllable. For additional examples, compare the a and b sentences in 511 and 512:

(511) a. Chémépí diíbye.
   b. Chemépíwu diíbye.
   a. \(\ddot{a}ʃʰɛmɛ̃-pʰ(7)\dddot{a} ti:-pɛ̀ ‘He is sickly’
sick-excess that-(SgM)
   b. \(\ddot{a}ʃʰɛmɛ̃-pʰ-kpù ti:-pɛ̀ ‘He is very sickly’
sick-excess-dim that-(SgM)

(512) a. Wákímyéípí diíbye.
   b. Wákímyéípíwu diíbye.
   a. kpákʰimɛ̃-pʰ(7) ti:-pɛ̀ ‘He is a hard worker.’
work-excess that-(SgM)
   b. kpákʰimɛ̃-pʰ-kpù ti:-pɛ̀ ‘He is a very
work-excess-dim that-(SgM) hard worker.’

### 7.8.5.2 -icho ‘somewhat’

The suffix -iʧʰo (-icho) ‘somewhat’ is used with scalar adjectives to indicate a moderate degree along the (implied) scale; e.g., with big it means

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26. 1° 0 pʰ ‘excessive’ derives stative verbs (adjectives) from verbs; see also examples 193 and 194, page 117.

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somewhat big, with small it means somewhat small, and so forth. Examples follow. Note that -iʧʰo ‘somewhat’ may follow a predicate adjective with a following subject, as in 513b, or with a following subject classifier, as in 513c:

(513) a. ájá⁽ˀ⁾ tì-ːpʲɛ̀ (Áyá díbye.)
small that-⟨SgM⟩

b. ájá-ɪʧʰó’ tì-ːpʲɛ̀ (Áyáíchó díbye.)
small-ish that-⟨SgM⟩

c. ájá-ɪʧʰò-ːpɛ̀ (Áyáíchoóbe.)
small-ish-⟨SgM⟩
a. ‘He is small.’
b,c. ‘He is somewhat small (medium sized, not very small).’

(514) mítʲʰá-ɪʧʰóˀ tì-ːpʲɛ̀ (Mítyáíchó díbye.) ‘He is rather big.’
big-ish that-⟨SgM⟩

(515) a. Kéémú diílle.
b. Kéémúíchó diílle.

a. kʰɛ́ːmɯ́
b. kʰɛ́ːmɯ́-ɪʧʰó
big-ish

a. ‘She is big.’
b. ‘She is medium sized (not very big).’

(516) a. í mítʲʰá-ɪʧʰó-ːpɛ̀-kʰɛ̀ (sítʰìβà)
self large-ish⟨SgM⟩-objAn

b. í ñaː-ɪʧʰó-ːpɛ̀-kʰɛ̀ (sítʰìβà)
self small-ish⟨SgM⟩-objAn

c. í ájá-ɪʧʰó-ːpɛ̀-kʰɛ̀ (sítʰìβà)
self small-ish⟨SgM⟩-aug-objAn

‘Bring me one of them that is

a. somewhat large.’
b. somewhat small.’
c. very small.’

7.8.5.3 The co-occurrence of -kpu(ɯ)(ː) and -iʧʰo

The suffixes -kpu(ɯ)(ː) (-wuu) ‘diminutive’ and -iʧʰo (-icho) ‘somewhat’ may co-occur in the same word, as in 516c, 517, and 518:
(517) Áyáichówú cahqúnucó mewájtúíyoki.
ájá-ɪʧʰó-kpú kʰàˀkúŋu-kʰò mè kpáˣtʰú-f-jó-kʰì
small-ish-dim manioc.drink- ⟨cls ⟩ SAP serve-fut-frs-pur
‘There is too little manioc drink for us to serve.’

(518) Cáracáwu dsíjívé íŋehnííchóóbéwuúvu.
kʰáɾàkʰá-kpɯ̀ʦɨ́hɨ̀βɛ́-ˀí ɲɛˀní-ːʧʰó-ːpɛ́-kp
chicken-dim die- ⟨t ⟩ self ugly-ish- ⟨SgM ⟩-dim-sou
‘The chick died, the rather ugly one (of them).’

7.8.5.4 -uvu ‘maximal’

-ʊβɯ (−uvu) ‘maximal’ can be added to an adjective to indicate its max-
imum degree, as in 519 and 520:

(519) àˣtʲʰúβá-nɛ̀-ɯβɯ̀ (ajtyúváneúvu) ‘the most brilliant
green- ⟨ø ⟩-max green (or blue) thing’

(520) ímí-ɲɛ̀-ɯβɯ́ mɛ̀nʌ-kʰò (Ímíñeúvú méénuco.) ‘Do it as well
good- ⟨ø ⟩-max do-dim as possible.’

Compare these examples to those of section 7.4.3.
Chapter 8

Pronouns

Pronouns are noun phrases: they have the distribution of noun phrases and, in Bora, are constructed like noun phrases, being headed by a classifier. They differ from nouns in that they take different pluralizers and they may not introduce a participant into the universe of discourse.

There are various classes of pronouns: personal pronouns (8.1), inanimate anaphoric pronouns (8.2), the anaphor i ‘self’ (8.3), demonstrative pronouns (8.4), indefinite pronouns (8.5), and possessive pronouns (8.6). For many of these it is convenient to subdivide the discussion based on animacy. Further, interrogative pronouns are discussed in chapter 15, in sections 15.2.1 and 15.2.2.

8.1 Personal pronouns

8.1.1 The form of personal pronouns

Personal pronouns are masculine, feminine, or unspecified for gender; they may be first, second, or third person; they may be singular, dual, or plural. First person dual and plural may be either inclusive (in.) or exclusive (ex.).\(^1\) See table 8.1.

\(^1\)These forms involve the following systems of features: item: \(\pm\)SAP, \(\pm\)singular; \(+\)SAP: \(\pm\)1person; \(\pm\)singular; \(+\)dual; \(\pm\)masc; \(\pm\)SAP, \(\pm\)singular: \(\pm\)masc.

The morphemes from which these words are formed are: o [+1person, +singular], ut [−1person, +singular], mu[r] ~ mu:r [±SAP, −singular], ti[+1person, −singular], ts[i] [+masc], t[+1person, −singular], mɛ [+1person, −exclusive], −ɛ [±SAP, +singular, −masc], t[+1person, +singular, −masc], −ɛ [±SAP, +singular, −masc], −ɛ [±SAP, −dual]
### Table 8.1 Personal pronouns

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<td>muhpi</td>
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<tr>
<td></td>
<td>dîbye</td>
<td>dîlle</td>
<td>diityeṭsi</td>
</tr>
</tbody>
</table>

*a* This is the first person plural exclusive form. The corresponding inclusive form is me ‘SAP’. See example 524.

*b* In example 1182 u ‘you’ followed by -ma ‘with’ at the end of a phrase becomes ú:maá ‘with you’. We do not know why the vowel of the pronoun is lengthened in this case.

*c* This has a lexically marked low tone on the first syllable. This low tone blocks the low of -kʰɛ’ ‘obj An’: tìː-tʲʰɛ́kʰɛ̀ ‘to those (AnPl)’. Other pronouns formed with tʲʰɛ̀ may have a lexically marked low tone, but it seems that this is not the case for all of them.

In addition to these there is (1) the first person inclusive form me ‘SAP’, and (2) combinations of tìː- ‘that’ and an animate classifier like -ʦʰɨ ‘child’.

Note that the second person dual and plural forms are like the corresponding first person forms except that the second person forms begin with á-.

When a personal pronoun is a preverbal subject, if it has a long vowel, this is shortened. For example, tìːpʲɛ̀ ‘he (SgM)’ changes to tìpʲɛ̀, as in 521:

(521) Tsá dibye pééityú.

\[
\text{t millenn } \text{tì-pʲɛ̀ } \text{pʰɛ́-i-tʰɯ́ } \text{‘He will not go.’}
\]

not that-⟨SgM⟩ go-fut-neg

A monosyllabic pronoun cliticizes to a following verb. Consequently the pronoun and the first syllable of the verb may not both bear low tones as these would violate the *LLX constraint. Examples abound for the first and second person singular; me ‘SAP’ occurs in 522 where the verb is phonetically \[mepʰɛ́ɛ́ˀ\]:

(522) mepʰɛ́ɛ́-ʔì (Mépééhi.) ‘Let’s (in.) go.’

SAP go-fut-⟨t⟩

When the subject is a first or second person dual or plural pronoun, me is “echoed” on the verb. For example, in 523a the subject is first person plural exclusive and in 523b it is second person dual masculine:
8.1. PERSONAL PRONOUNS

(523) a. Muha mepéjucóóhi.
    b. ¿A ámuhtsi metsááhi?
  a. múʔ?à mè pʰɛ́-hùkʰóːʔì 'We (ex.)
      we SAP go-now-(t) are going now.
  b. à ámùʔʔtsʰi mè tˢʰáːʔì 'Are you (DuM)
      ques you(DuM) SAP come-(t) coming?'

Note the following contrast:

(524) a. Teene újcuube memájchoki.
    b. Teene újcuube muha memájchoki.

<table>
<thead>
<tr>
<th></th>
<th>a. Ø</th>
<th>b. múʔʔà mɛ̀ máˣʧʰò-kʰì</th>
</tr>
</thead>
<tbody>
<tr>
<td>that-(Ø) get-(SgM)</td>
<td>we</td>
<td>SAP eat-pur</td>
</tr>
</tbody>
</table>

The personal pronouns may occur with case markers. When they are direct objects, they bear -kʰɛ’objAn’, as in 525 and 526:

(525) ó áᵣʰùmíf-² tivité-kʰɛ́ (Ó ájtýumí díbyeke.) ‘I saw
      I see-(t) that-(SgM)-objAn him.

(526) Ó ájtýumí ámúhpìke.

ó áᵣʰùmíf-² ámúʔʔpʰi-kʰɛ́ ‘I saw you two (DuF).’
I see-(t) you-DuF-objAn

When they are goals, they take -⁽ˀ⁾ti’animate’ along with -βɯ́ ‘goal, theme’, as in 527:

(527) Oke daacu tétsidívu.

ô-kʰɛ́ t’àkʰù tivité-tsʰi-tf-βùr
I-objAn give that-(baby)-anim-thm

‘Give me that baby.’

When o, u, and mɛ are used as direct objects (followed, of course, by -kʰɛ ‘objAn’) they have a single vowel, as in 528 and 529:

(528) ô-kʰɛ́ ñtʰɛ́-pɛ́ (Oke ñtíeebe.) ‘He looks at me.’
I-objAn look-(SgM)

(529) mɛ̀-kʰɛ́ ñtʰɛ́-ʧɛ́ (Meke ñtíelle.) ‘She looks at us (in.).’
SAP-objAn look-(SgF)

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However, in single word responses to questions the vowel is long, as in 530:

(530) a. ̀òː-kʰɛ̀ (Oóke.) ‘To me.’
   b. mɛ̀ː-kʰɛ̀ (Meéke.) ‘To us (in.).’

8.1.2 The use of personal pronouns

First and second person pronouns are used to refer to the speaker(s) and hearer(s) as needed. Third person pronouns are used either to “point” to a referent in the external context or to establish coreference with another referring expression, usually one that has been previously established. This latter use of pronouns competes with two alternatives: (1) with the anaphor i ‘self’, and (2) with the use of a classifier subject to refer to the subject. We comment briefly on these in turn.

First, i ‘self’ is an anaphor, so must be bound within a very local domain (as discussed further in section 8.3) while the personal pronouns must not be bound within that domain. For example, consider 531, the structure of which is represented in figure 8.1. The possessor in the subordinate clause is tíː-pʰè (that- ⟨SgM⟩) and it is bound from outside of the subordinate clause. (It could refer to the speaker’s brother or any other male other than the speaker himself.) If instead it were i ‘self’, as in 1157, page 439, it would be bound by the subject of its clause and thus refer to “me” rather than to John.

(531) Táñahbe oke úhbápejtsó díibye jávu o péébeke.
  tá-ðaːjɛ̀ ̀ò-i-kʰɛ̀ úpʰɛ̀xʦʰó-i-pʰè
  my sib- ⟨SgM⟩ I-objAn upbraid-meet- ⟨t⟩

  Α [ [tíː-pʰè ̀ha-bUU ̀òi- pʰɛ̀ ]-pɛ̀-kʰɛ̀
  that- ⟨SgM⟩ house -goal I go ⟨SgM⟩-objAn
   ‘My brother bawled me out right when I arrived at his house.’

4Note further that what is interpreted as a time adverbial is structurally a postpositional phrase in apposition to the direct object.
Thus, the choice between a personal pronoun and the anaphor may be determined by the (structural) distance to the pronoun’s coreferent: a pronoun if sufficiently far, the anaphor if sufficiently close.

Second, in some cases the choice between indicating a sentence’s subject with an overt personal pronoun, as opposed to using a classifier on the verb, is determined by structural factors. For example, when a sentence is negated with ṭsʰāʔ(a) and -ṭʰɯ’ ‘neg’ an overt pronoun (or noun phrase) is required, but if it is negated (contrastively) with -ʰiː(βa) ‘deny’, a classifier subject is used; see section 13.3, particularly examples 850 and 851.

However, more generally the choice is determined by the issue of topic continuity:

**continuity:** A classifier subject on the verb is generally used when the subject remains the same, as in the second and third sentences of 1043, page 398. Continuity can also be maintained by making the subject a thematic connective, as in 1041, page 398.
discontinuity: Shifting the subject from the currently most topical referent to another possible referent generally requires using an overt pronoun or noun phrase. See, for example, the set in 1054–1056, page 401. A special case of this is to reestablish a topic that was earlier put aside; see section 19.1.4.

Continuity is generally more frequent than discontinuity, so subjects are more frequently indicated with a classifier than with an overt pronoun.

8.2 Inanimate anaphoric pronouns

An anaphoric pronoun refers to something previously mentioned.\(^5\) Bora inanimate anaphoric pronouns are formed by adding a classifier to tʰɛː- ‘aforementioned (that)’; they are third person, and may be singular, dual, or plural. For example:\(^6\)

\((532)\)

- (a) tʰɛː-nɛ̀ (teéne) ‘that thing (in general)’
- (b) tʰɛː-kpà (teéwa) ‘that slab (plank, table, etc.)’
- (c) tʰɛː-mɨ̀ (teémɨ) ‘that canoe (airplane, car,…)’
- (d) tʰɛ́-ʔàːmɨ̀ (téhaámɨ) ‘that leaf (paper, book,…)’

The dual is formed by adding -ːkʰɯ ‘duIn’ and the plural is formed by adding -(ˁ)hi ‘plural’. Examples are given in 533: \(^7\)

\((533)\)

- (a) tʰɛ́-nɛ̀-ːkʰɯ̀ (téneécu) ‘those two things (in general)’
- (b) tʰɛ́-kpà-ˀhɨ̀ (téwahji) ‘those slabs (benches,…)’
- (c) tʰɛ́-ʔàːmɨ́-kʰɯ̀ (téhaamɨ́ cu) ‘those two books (leaves,…)’
- (d) tʰɛ́-ʔàːmɨ́-hɨ̀ (téhaamɨ́ jɨ) ‘those leaves (papers,…)’

When an inanimate anaphoric pronoun is used as the subject of a clause, if it has a long vowel, then this shortens, as in 534: \(^8\)

\((534)\)

bsʰ₁.phi tʰɛ-nɛ́ ʔimí-tʰú-(nɛ̀) (Tsá tene imityú(ne).) ‘That is bad.’
not that-(ʔ) good-neg-(n)

---

\(^5\)Here we use anaphoric in its broader, traditional sense in which it contrasts with cataphoric ‘forward-referring’ and exophoric ‘referring to something outside of the text’. Below we use anaphor in the narrower (more modern) sense of a pronoun that must be bound within a very local domain.

\(^6\)In example 532a–c the root has a long vowel whereas in 532d the length is suppressed, presumably because the following suffix has a long vowel.

\(^7\)By contrast to 532a–c (but like 532d), in 533 the length of tʰɛː- ‘aforementioned (that)’ is suppressed in all cases. This is presumably because—in every case—the following syllable is heavy. Further note that the length of -ːkʰɯ ‘duln’ is suppressed in 533c, presumably because of the length in the preceding syllable.

\(^8\)Perhaps they are lengthened (or otherwise made heavy) when followed by a light syllable.
Because these pronouns are inanimate, when occurring as the direct object they do not take -1kʰɛ‘objAn’; see 535. Nor do they take ˀti‘animate’ with -βù‘goal, theme’; see 536.

(535) Ó ájtyumí teéwa.
  ó átʰjùmɪ.² tʰɛː-kpà     ‘I saw that slab (plank, table, …)’
  I see-⟨t⟩ that-⟨slab⟩

(536) Oke daacu tééwavu.
  ḃ-kʰɛ tà:kʰù tʰɛː-kpà-βù     ‘Give me that slab (bench, I-objAn give that-⟨slab⟩-thm table, …)’

8.3 The anaphor i ‘self’

The morpheme i (i-) ‘self’ is an anaphor, a type of pronoun that must be bound in a very local domain. That is, an anaphor must be coreferential with an element that occupies a structurally more prominent position, but one that is not too far away. Generally it must not be farther away than the structurally closest subject (but not one that is structurally “lower” than the anaphor). 9 It may indicate the subject of a subordinate clause that is bound by the subject of the next higher verb, as shown in the following discussion and examples:

ADVERBIAL CLAUSES:

In example 537a the subject of the adverbial clause is indicated by the anaphor i ‘self’, which is bound by the subject of the main clause (indicated by the classifier on the main verb). By contrast, the overt pronoun in 537b must not be bound by the subject of the main clause, so necessarily refers to someone other than the subject of the main clause. Further examples: 863, page 331; 982, page 374; and 1059, page 403.

(537) a. Teene újcuube imájchoki.
    b. Teene újcuube dibye májchoki.

  tʰɛː-nɛ úxkʰù-pɛ
  that-⟨∅⟩ get-⟨SgM⟩

   a.  i 
     self
   b.  tʰɛː
     that-⟨SgM⟩

  máxʧʰò-kʰì
  eat-pur

  9Technically, an anaphor must be coindexed with a c-commanding noun phrase within the domain of the closest accessible subject.
a. He got that in order to eat it.
b. He got that in order that he eat it.

COMPLEMENT CLAUSES:

In 538 ʼimáʧʰò-nɛ̀ (self eat-(n)) is the complement of the ʼimíʧɛ́- ‘to want’. In 538a the subject of the complement is i ‘self’, which is bound by the subject of the higher verb. By contrast, the overt pronoun in 538b must not be bound by the subject of the main clause, so necessarily refers to someone other than the subject of the main clause:

(538) a. Imíllémé imájchone.
   b. Imíllémé dibye májchone.

a. They want to eat.
b. They want him to eat.

Likewise, in 851b, page 328, the anaphoric subject of the complement is bound by the subject of ‘to want’ (whether indicated by a classifier as in 851a or by an overt personal pronoun as in 851b).

RELATIVE CLAUSES:

In 1030, page 392, the subject of the relative clause, indicated by i ‘self’, is coreferential with the subject of the main clause.

In 539, the three cases of i ‘self’ refer to the subject of the main clause. The two that are underlined indicate the subjects of subordinate clauses; the other (in the first word) is part of a possessive pronoun:

(539) Ihñe imújtátsóne imíllebee dihñe iújcune.

\[
\begin{align*}
\text{[i}^\text{ż-nɛ̀ } \hat{\text{i}} \text{mu}^\text{8-thá-ts}^\text{hó }] & -nɛ̀ \text{ imíʧɛ́-pɛ̀ self-(ø) self lose-cause -} \text{(event) want-(SgM)} \\
\text{[ti}^\text{2-nɛ̀ } \hat{\text{i}} \text{úr}^\text{h} \text{ù }] & -nɛ̀ \text{ your-(ø) self obtain -} \text{(ø)}
\end{align*}
\]

‘Having caused the loss of his own, he wants to get yours.’

We now turn to cases in which the anaphor is the modifier (possessor) in a genitive construction. In 540a the anaphor i ‘self’ modifies (possesses)
‘house’ and refers to the sentence’s subject (John). By contrast, in 540b the personal pronoun ti-p’ɛ must refer to someone outside of this domain, that is, someone other than John:

(540) a. Jóáa péé ihjyávu.
   b. Jóáa péé dííbye jávu.

\[
\begin{array}{l}
\text{hóáà pʰɛ́ː-ʔɪ} \\
\text{John go-⟨t⟩}
\end{array}
\]

\[
\begin{array}{ll}
\text{a. } & \text{ɪʰ} \\
\text{self} & \text{há-βùu} \\
\text{b. } & \text{tiːp’ɛ} \\
\text{that-⟨SgM⟩} & \text{há-βùu}
\end{array}
\]

a. ‘John, went to his house.’

b. ‘John, went to his house. (i \neq j)’

And i ‘self’ behaves as an anaphor when it is part of a free possessive pronoun. For example, i’ɲɛ ‘self’s (thing)’ must refer to something possessed by the referent of a nearby expression, one close enough to bind the anaphor. In 564, page 248, it refers to the sentence’s subject.

Although i ‘self’ behaves like a typical anaphor in the majority of cases, some cases are unexpected. For example, in 541 it refers to the subject of the sentence, but that subject is outside of the immediate clause of the anaphor:

(541) Jóáa waajácu îoohíbyte dśǐjivéne.

\[
\begin{array}{l}
\text{hóáà, kpà:hákʰúː} \\
\text{John know-⟨t⟩} \\
\end{array}
\]

\[
\begin{array}{ll}
\text{a. } & \text{ɨʔ} \\
\text{self} & \text{dog-⟨SgM⟩ die -⟨ø⟩} \\
\end{array}
\]

‘John, knows that his dog died.’

Example 542 is perhaps even more problematic. Generally anaphors must be coreferential to a noun phrase that is in a structurally more prominent position. However, in 542 i refers from within the subject to the direct object, which presumably is not more prominent:

(542) Îoohíbyte Jóááke ihdóhi.

\[
\begin{array}{l}
\text{ɨ} \\
\text{self} \\
\end{array}
\]

\[
\begin{array}{l}
\text{Øːʔíːp’ɛ́ hóáː–kʰɛ́} \\
\text{John-objAn bite-⟨t⟩}
\end{array}
\]

Technically, the binding expression should c-command the anaphor. Further, subjects generally c-command objects, but objects do not c-command subjects. This may be evidence that Bora has a “flat” structure, one lacking a verb phrase. However, this raises other questions beyond the scope of this grammar. We leave the question as an outstanding research issue.

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8.4 Demonstrative pronouns

Demonstrative pronouns refer to a person or object, indicating the relative distance between it and the speaker: PROXIMATE refers to something close to the speaker; DISTAL refers to something far from the speaker; MEDIAL refers to something neither close to nor far from the speaker. The pronouns are formed from the roots listed in table 8.2:

<table>
<thead>
<tr>
<th>Table 8.2 The roots of demonstrative pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROXIMATE</td>
</tr>
<tr>
<td>animate</td>
</tr>
<tr>
<td>inanimate</td>
</tr>
</tbody>
</table>

Whether a demonstrative pronoun is animate or inanimate depends on the classifier that follows.

8.4.1 Animate demonstrative pronouns

Animate demonstrative pronouns are either masculine, feminine, or unspecified for gender. They are third person and either singular, dual, or plural. The proximate pronouns are formed with í- ‘proximate’ except in the singular, which forms are exceptional. The medial pronouns are formed with àː- ‘medial’. The distal pronouns are formed with áː- ‘distal’. See table 8.3.

Table 8.3 Animate demonstrative pronouns

<table>
<thead>
<tr>
<th>singular masculine</th>
<th>proximate (í-)</th>
<th>medial (àː-)</th>
<th>distal (áː-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>áːnù</td>
<td>àː-pʲɛ̀</td>
<td>áː-tì</td>
<td>(áːdidi)</td>
</tr>
<tr>
<td>áːnuú</td>
<td>aábye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>feminine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>áːmʲɛ̀</td>
<td>àː-ʧɛ̀</td>
<td>áː-ʧɛ̀</td>
<td></td>
</tr>
<tr>
<td>áːmyeé</td>
<td>aálle</td>
<td></td>
<td>(aálleé)</td>
</tr>
<tr>
<td>dual masculine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>í-xtʲʰɛ̀-ʦʰì</td>
<td>àː-tʲʰɛ̀-ʦʰì</td>
<td>áː-tʲʰɛ̀-ʦʰì</td>
<td></td>
</tr>
<tr>
<td>ſtyetsi</td>
<td>aatyétsí</td>
<td>aatyétsí</td>
<td></td>
</tr>
<tr>
<td>feminine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>í-xtʲʰɛ̀-pʰɨ̀</td>
<td>àː-tʲʰɛ̀-pʰɨ̀</td>
<td>áː-tʲʰɛ̀-pʰɨ̀</td>
<td></td>
</tr>
<tr>
<td>ſtyepɨ</td>
<td>aatyépɨ</td>
<td>aatyépɨ</td>
<td></td>
</tr>
<tr>
<td>plural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>í-xtʲʰɛ̀</td>
<td>àː-tʲʰɛ̀</td>
<td>áː-tをつけ</td>
<td></td>
</tr>
<tr>
<td>ſtyeé</td>
<td>aátye</td>
<td>aátyeé</td>
<td></td>
</tr>
</tbody>
</table>

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Note that the medial and distal differ by the tone of the first syllable: low for medial and high for distal.\(^{10}\)

The animate demonstrative pronouns are generally used to refer to beings (people or animals) that are within view, as in 543:

(543) áːnù̀ tsʰá-hùkʰóː-ʔì (Áánu tsájucóóhi.) ‘This one (SgM) come-now-⟨t⟩ has now come.’

They may also be used to answer a question. For example, the question in 544a could be answered by 544b:

(544) a. kʰìá tiːpʲɛ́ ⟨¿Kiá diíbye?⟩ ‘Where is he?’
where that-⟨SgM⟩ (lit. ‘Where he?’)

b. áːnù̀: (Áánuú.) ‘He is here.’
this.SgM

8.4.2 Inanimate demonstrative pronouns

Inanimate demonstrative pronouns are not specified for gender; they are third person and may be singular, dual or plural. These are formed by adding a classifier to i- ‘demonstrative proximate’ e(ː)- ‘medial’ and ếˀ- ‘distal’. For example, see ế-xpʰì in 545 and ế-kpàː in 546:

(545) tsʰí-xpʰì ế-xpʰì (tsíjpi éjpi) ‘another’s person other-⟨SgM⟩ that-⟨SgM⟩ (or animal)’

(546) ...dihñéwaa Moitsée éhwaa, Ería éhwaa...
[your-⟨slab⟩ Moses that-⟨slab⟩ Elijah that-⟨shelter⟩]
‘...your shelter, Moses’ shelter, Elijah’s shelter...’

Any of the classifiers can be used in this way. Table 8.4 illustrates this for -nɛ̀ ~ -ɲɛ̀ ‘thing’, -kpa ‘slab, plank, table, bench, machete, knife and similar things’, and -ʔaːmi ‘leaf, paper, book, bill, and similar things’. The proximate, medial, and distal demonstratives are given as singular, dual (with :kʰu ‘dUl’), and plural (with .hî ‘plural’). Note that, with perhaps a few exceptions, the medial and distal differ by the tone of the second syllable: low for medial and high for distal.

\(^{10}\) Also note that in two places the first consonant is not palatalized by the preceding aː-, namely the singular masculine proximate and distal forms. In áː-tìː the palatalization may simply be masked by the following /i/. It may be that in áː-nùː ‘this (SgM)’ palatalization is blocked to avoid confusion with áɲù ‘buzzard’; witness áːnù-kʰè ‘to him’ versus áɲù-kʰè ‘to the buzzard’.
### Table 8.4 Inanimate demonstrative pronouns

<table>
<thead>
<tr>
<th>Proximate (í-)</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thing</td>
<td>í-ɲɛ̀</td>
<td>í-ɲɛ̀-ːkʰɯ̀</td>
<td>í-ɲɛ̀-ˀhɨ́</td>
</tr>
<tr>
<td>Slab</td>
<td>í-ḵpà</td>
<td>í-ḵpà-ːkʰɯ̀</td>
<td>í-ḵpà-ˀhɨ́</td>
</tr>
<tr>
<td>Leaf</td>
<td>í-ʔàːmì</td>
<td>í-ʔàːmì-ːkʰɯ̀</td>
<td>í-ʔàːmì-ˀhɨ́</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Medial (ɛ́ː)</td>
<td>Thing</td>
<td>ë⁻-ɲɛ̀</td>
<td>ë⁻-ɲɛ̀-ːkʰɯ̀</td>
</tr>
<tr>
<td>Slab</td>
<td>ë⁻-ḵpà</td>
<td>ë⁻-ḵpà-ːkʰɯ̀</td>
<td>ë⁻-ḵpà-ˀhɨ́</td>
</tr>
<tr>
<td>Leaf</td>
<td>ë⁻-ʔàːmì</td>
<td>ë⁻-ʔàːmì-ːkʰɯ̀</td>
<td>ë⁻-ʔàːmì-ˀhɨ́</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Distal (ɛ́ˀ)</td>
<td>Thing</td>
<td>ë⁻⁻-ɲɛ̀</td>
<td>ë⁻⁻-ɲɛ̀-ːkʰɯ̀</td>
</tr>
<tr>
<td>Slab</td>
<td>ë⁻⁻-ḵpà</td>
<td>ë⁻⁻-ḵpà-ːkʰɯ̀</td>
<td>ë⁻⁻-ḵpà-ˀhɨ́</td>
</tr>
<tr>
<td>Leaf</td>
<td>ë⁻⁻-ʔàːmì</td>
<td>ë⁻⁻-ʔàːmì-ːkʰɯ̀</td>
<td>ë⁻⁻-ʔàːmì-ˀhɨ́</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

The combination of ɛ́⁻ 'that' and -ɲɛ ⟨∅⟩ forms a general demonstrative pronoun that can be used to point to any object (exophoric), but is most often used as the head of genitive construction, as in 547:

(547) tí⁻⁻-pʲɛ̀  ɛ́⁻⁻-ɲɛ̀ (dííbye ɛ́hne) 'that thing belonging that-⟨SgM⟩ that-⟨∅⟩ to him'

## 8.5 Indefinite pronouns

Indefinite pronouns may be animate (8.5.1) or inanimate (8.5.2).

### 8.5.1 Animate indefinite pronouns

The animate indefinite pronouns are all third person, and may be singular, dual, or plural. The singulars and duals may be masculine or feminine.
Those in table 8.5 are derived from the root $ʦʰàː-'one, each’$ (also used in numeral phrases) and refer to indefinite persons or or animals. Those in table 8.6 are derived from the root $ʦʰi- ‘other’$ and refer to some “other(s)”.

### Table 8.5 Animate indefinite pronouns: ‘one’

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>masculine</strong></td>
<td>$ʦʰàː-ːpʰì$</td>
<td>$ʦʰàː-ːtʰɛ́-ʦʰì$</td>
<td>$ʦʰà-ːtʰɛ̀$</td>
</tr>
<tr>
<td></td>
<td>$tsaápi$</td>
<td>$tsaatétsi$</td>
<td>$tsaáte$</td>
</tr>
<tr>
<td><strong>feminine</strong></td>
<td>$ʦʰá-ːpʰìʧɛ̀$</td>
<td>$ʦʰà-ːtʰɛ́-pʰɨ̀$</td>
<td>$tsáapille$</td>
</tr>
<tr>
<td></td>
<td>$tsáápille$</td>
<td>$tsaatépɨ$</td>
<td>$tsaatépɨ$</td>
</tr>
</tbody>
</table>

The root $ʦʰaː- ‘one, each’$ only occurs followed by a classifier; thus, “one man” or “one woman” is said as in 548:

(548) a. Tsaapi (wajpi) tsááhií.

b. Tsáapille (walle) tsááhií.

\[ \begin{align*}
  \text{a. } & t s ʰ ə - ː p ^ { h i } \quad (k p ə - x p ^ { h i }) \\
  & \quad \text{one-⟨SgM⟩ person-⟨SgM⟩} \\
  & t s ʰ ə - ː ? i \quad \text{‘One man came.’} \\
  \text{b. } & t s ʰ ə - ː p ^ { h i } t ʃ è \\
  & \quad (k p ə - t ʃ è) \\
  & \quad \text{one-⟨SgF⟩ person-⟨SgF⟩} \\
  & t s ʰ ə - ː ? i \quad \text{‘One woman came.’}
\end{align*} \]

### Table 8.6 Animate indefinite pronouns: ‘other’

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>masculine</strong></td>
<td>$ʦʰi-ːpʰì$</td>
<td>$ʦʰi-ːtʰɛ́-ʦʰì$</td>
<td>$ʦʰi-ːtʰɛ̀$</td>
</tr>
<tr>
<td></td>
<td>$tsjipi$</td>
<td>$tsjytetsi$</td>
<td>$tsijye$</td>
</tr>
<tr>
<td><strong>feminine</strong></td>
<td>$ʦʰi-ːpʰi-ːtʃè$</td>
<td>$ʦʰi-ːtʰɛ́-pʰi$</td>
<td>$tsíjyepi$</td>
</tr>
<tr>
<td></td>
<td>$tsíjpille$</td>
<td>$tsíjtyepi$</td>
<td>$tsíjyepi$</td>
</tr>
</tbody>
</table>

The pronouns in tables 8.5 and 8.6 result from combining morphemes from three sets; see table 8.7.\(^\text{i1}\)

\(^\text{i1}\)There is no masculine singular suffix; if there is no indication to the contrary, a singular is interpreted as masculine.
### Table 8.7 Composition of animate indefinite pronouns

<table>
<thead>
<tr>
<th>DETERMINER</th>
<th>NUMBER</th>
<th>NUMBER-GENDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>tsʰaː-</td>
<td>‘one’</td>
<td>-ʰpi ‘singular’</td>
</tr>
<tr>
<td>tsʰiː-</td>
<td>‘other’</td>
<td>-tʰɛ ‘nonsingular’</td>
</tr>
</tbody>
</table>

*a* ·ʰpi means ‘body’ but there is no simple gloss for ·tʰɛ.

Other animate indefinite pronouns are now illustrated. Those in 549 have tsʰaː- ‘one, each (indefinite)’, those of 550 have tsʰi- ‘other’.

(549) a. tsʰáː-ʰpi-ʦʰà (tsáápiítsa) ‘each one (SgM)’
   one- ⟨SgM⟩ -one
b. tsʰáː-ʰpiʧɛ́-ʦʰà (tsáápillétsa) ‘each one (SgF)’
   one- ⟨SgF⟩ -one
c. tsʰà-mútsʰì (tsamútsi) ‘both (DuM)’
   one- ⟨DuM⟩
d. tsʰà-múpʰɨ̀ (tsamúpɨ) ‘both (DuF)’
   one- ⟨DuF⟩
e. tsʰà-méːɾɛ̀ (tsaméére) ‘all of a group (AnPl)’
   one- ⟨AnPl⟩ -only

(550) a. tsʰi-ɛ̀mɛ́-ʰpi (tsíeméjpi) ‘another one (SgM)’
   other-sim-sg
b. tsʰi-ɛ̀mɛ́-tʰɛ́ (tsíeméjte) ‘other ones (AnPl)’
   other-sim- ⟨AnPl⟩

Another animate indefinite pronoun is pʰá-mɛ̀-ːɾɛ̀ ‘all (AnPl)’ (formed from pʰà- ‘all’); see 551 and 552:

(551) pʰá-mɛ̀-ːɾɛ̀ tsʰáː-ʔìː (Pámeere tsááhií.) ‘Everyone came.’
   all- ⟨AnPl⟩ -only come- ⟨t⟩

(552) pʰá-mɛ̀-βá-ːɾɛ̀¹² tsʰáː-ʔìː (Pámeváre tsááhi.) ‘All kinds (AnPl) came.’
   all- ⟨AnPl⟩ -pl-only come- ⟨t⟩

¹²We do not know why -ːɾɛ̀ ‘only’ makes the preceding vowel long in 551 but not in 552.
8.5.2 Inanimate indefinite pronouns

The inanimate indefinite pronouns are third person and may be singular, dual or plural. They are formed by combining a classifier with a morpheme like tsʰa(ː)- ‘one’, tsʰi- ‘some, other’ or tsʰi-êtɛ́- ‘something similar’, (among other possibilities). The only difference between these and the animate indefinite pronouns is that these have inanimate classifiers whereas the former have animate ones.

A pluralizer may follow the classifier -kʰɯ’ ‘duIn’ or -⁽ˀ⁾hɨ’ ‘plural’. These are illustrated in tables 8.8–8.10 with the classifiers -nɛ ⟨ø⟩, -ʔɛ ‘tree, plant’, and -⁽ˀ⁾pa ‘soft fruits, thick drinks, and such’. (Note the quantity shifts.)

Table 8.8 Inanimate indefinite pronouns: ‘one’

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>thing</td>
<td>one</td>
<td>both</td>
<td>some</td>
</tr>
<tr>
<td></td>
<td>tsʰa-ːnɛ</td>
<td>tsʰá-ːnɛ-ːkʰɯ</td>
<td>tsʰá-ːnɛ-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsane</td>
<td>tsáneécu</td>
<td>tsánehjì</td>
</tr>
<tr>
<td>tree</td>
<td>tsʰa-ʔɛ̂</td>
<td>tsʰá-ʔɛ̂-ːkʰɯ</td>
<td>tsʰá-ʔɛ̂-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsáhe</td>
<td>tsáheécu</td>
<td>tsáhehjì</td>
</tr>
<tr>
<td>fruit</td>
<td>tsʰa-ːpà</td>
<td>tsʰá-ːpà-ːkʰɯ</td>
<td>tsʰá-ːpà-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsahba</td>
<td>tsábaácu</td>
<td>tsábahjì</td>
</tr>
</tbody>
</table>

Table 8.9 Inanimate indefinite pronouns: ‘other’

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>thing</td>
<td>another</td>
<td>two others</td>
<td>others (various)</td>
</tr>
<tr>
<td></td>
<td>tsʰi-ːnɛ</td>
<td>tsʰi-ːnɛ-ːkʰɯ</td>
<td>tsʰi-ːnɛ-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsiíñe</td>
<td>tsiíñeécu</td>
<td>tsiínehjì</td>
</tr>
<tr>
<td>tree</td>
<td>tsʰi-ʔɛ̂</td>
<td>tsʰi-ʔɛ̂-ːkʰɯ</td>
<td>tsʰi-ʔɛ̂-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsiíhe</td>
<td>tsiíheécu</td>
<td>tsiíhehjì</td>
</tr>
<tr>
<td>fruit</td>
<td>tsʰi-ːpà</td>
<td>tsʰi-ːpà-ːkʰɯ</td>
<td>tsʰi-ːpà-ˀhɨ</td>
</tr>
<tr>
<td></td>
<td>tsihba</td>
<td>tsíbaácu</td>
<td>tsíbahjì</td>
</tr>
</tbody>
</table>

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Table 8.10 Inanimate indefinite pronouns: ‘some’

<table>
<thead>
<tr>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>some (one)</td>
<td>some (two)</td>
<td>some (various)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>thing</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tsʰí-ɛ̀mɛ́-nɛ̀</td>
<td>tsʰí-ɛ̀mɛ́-nɛ́-ːkʰɯ́</td>
<td>tsʰí-ɛ̀mɛ́-nɛ́-ʔhɨ́</td>
</tr>
<tr>
<td>tsíeméne</td>
<td>tsíeménéécu</td>
<td>tsíeménéhji</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tree</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tsʰí-ɛ̀mɛ́-ʔɛ́</td>
<td>tsʰí-ɛ̀mɛ́-ʔɛ́-ːkʰɯ́</td>
<td>tsʰí-ɛ̀mɛ́-ʔɛ́-ʔhɨ́</td>
</tr>
<tr>
<td>tsíeméhe</td>
<td>tsíeméhéécu</td>
<td>tsíeméhéhji</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>fruit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tsʰí-ɛ̀mɛ́-pà</td>
<td>tsʰí-ɛ̀mɛ́-pà-ːkʰɯ́</td>
<td>tsʰí-ɛ̀mɛ́-pà-ʔhɨ́</td>
</tr>
<tr>
<td>tsíeméba</td>
<td>tsíemébáácu</td>
<td>tsíemébáhji</td>
</tr>
</tbody>
</table>

Other inanimate indefinite pronouns are now illustrated. Those in 553 have the suffix -ːʦʰa ‘each’.

(553) a. tsʰá-nɛ̀-ːʦʰà (tsáneétsa) ‘each thing (one after the other)’
   b. tsʰá-ʔɛ̀-ːʦʰà (tsáheétsa) ‘each tree (one after the other)’
   c. tsʰá-pà-ːʦʰà (tsábaátsa) ‘each fruit (one after the other)’

(554) pʰá-nɛ̀-ːɾɛ̀ (páneére) ‘all (things)’
   all-⟨ø⟩-only

(555) mítʲʰà-nɛ̀ (mítyane) ‘many (things)’
   big/many-⟨ø⟩

13 Compare the animate in example 552.
### 8.6 Possessive pronouns

The **possessive pronouns** are given in table 8.11.

**Table 8.11 Possessive pronouns**

<table>
<thead>
<tr>
<th>Bound possessive pronouns</th>
<th>Free possessive pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>tʰa</strong> (tʰa-) ‘my’</td>
<td><strong>tʰa-ʔne</strong> (tahñe) ‘mine’</td>
</tr>
<tr>
<td><strong>ti</strong> (di-) ‘your’</td>
<td><strong>ti-ʔne</strong> (dihñe) ‘yours’</td>
</tr>
<tr>
<td><strong>me</strong> (me-) ‘our (in.)’</td>
<td><strong>me-ʔne</strong> (mehne) ‘ours (in.)’</td>
</tr>
<tr>
<td><strong>mu</strong> (mu-) ‘of whom’</td>
<td><strong>mu-ʔne</strong> (muhne) ‘whose?’</td>
</tr>
<tr>
<td><strong>i</strong> (i-) ‘self’s’</td>
<td><strong>i-ʔne</strong> (ihñe) ‘self’s’</td>
</tr>
</tbody>
</table>

\(^{a}\)The final /e/ of mɯ̀-ʔne ‘whose’ becomes /a/ word finally.

\(^{b}\)Strictly speaking, this is an anaphor, not a pronoun; see section 8.3.

\(^{c}\)This is like English his, hers, its, theirs.

When a bound possessive pronoun tʰa-, ti-, me- or i- possesses a monosyllabic noun, it is made heavy by the addition of a glottal stop. For example, compare the anaphoric pronoun in 556a with the possessive pronoun in 556b:

(556) a. /í-hà/ [íhʲàː] (íjyaá) ‘this house’
       this-⟨shelter⟩

b. /ìˀhà/ [ìˀhʲà] (ihjya) ‘self’s house’
       self house

This is also evident in the free possessive pronouns of table 8.11.

The bound possessive pronouns are used as the modifier (possessor) in a genitive construction,\(^{14}\) as discussed in chapter 9. They function much like the bound adjectival stems listed in appendix C but have a slightly different distribution.

**Free possessive pronouns** are derived by adding the null classifier -ne. ⟨ø⟩ to a bound possessive pronoun; these now function as a single

---

\(^{14}\)In the following possessed forms of tʰi:me ‘child’ there are two curious alternations:

<table>
<thead>
<tr>
<th>Self’s</th>
<th>My</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHILD</strong></td>
<td><strong>CHILDREN</strong></td>
</tr>
<tr>
<td>fʰtsʰimene</td>
<td>fʰtsʰimène</td>
</tr>
<tr>
<td>‘self’s child’</td>
<td>‘self’s children’</td>
</tr>
<tr>
<td>tʰatsʰimene</td>
<td>átsʰimène</td>
</tr>
<tr>
<td>‘my child’</td>
<td>‘my children’</td>
</tr>
</tbody>
</table>

(1) The initial syllable of each singular form ends with ũ whereas that of each plural form ends in vowel length. (2) For ‘my’ (in the second column), the singular form begins with /tʰ/ but this is absent in the plural form. We have no explanation for these alternations.
They are written as though a single morpheme throughout this grammar.

The free possessive pronouns are never used as the modifier (possessor) in a genitive construction; as stated above, this is done with bound possessive pronouns.

A free possessive pronoun may be followed by a classifier, forming a noun phrase headed by that classifier:

\[(557) \text{thà?nè-\text{-}pʰì} (\text{tahñéjpi}) \text{‘my person or animal (SgM)’} \]
\[
\text{mine-(SgM)}
\]

\[(558) \text{muñé-\text{-}fè} (\text{muñélle}) \text{‘whose person or animal (SgF)?’} \]
\[
\text{whose-(SgF)}
\]

\[(559) \text{mè\text{-}tʰè} (\text{mehnèjte}) \text{‘our (in.) persons or animals’} \]
\[
\text{our-pl}
\]

\[(560) \text{páneere ihñénehjima} \]
\[
\text{pʰá-nè-rè iⁿé-nè-ʰì-mà ‘with all the things all-(ø)-only self’s-(ø)-pl-with that belong to him’}
\]

\[(561) \text{a. tiⁿé-\text{-}ámì} (\text{dihñéháámì}) \text{‘your leaf (paper, your-leaf)} \]
\[
\text{book,…’}
\]
\[b. \text{thà?nè-kpá-\text{-}kʰú} (\text{tahñéwäácu}) \text{‘my two slabs (planks, my-(slab)-du}} \]
\[
\text{machetes,…’}
\]
\[c. mèⁿé-\text{-}ámì-hì (\text{mehnèhaamijì}) \text{‘our leaves (papers, our(in.)-leaf)-pl books,…’}
\]

\[(562) \text{iⁿé-kpà} (\text{ihñéwa}) \text{‘his (self’s) slab (table, machete,…)}’
\]
\[
\text{self’s-(slab)}
\]

\[(563) \text{iⁿé-\text{-}ífó} \text{pʰánè (ihñéihlló pañe) ‘inside his (self’s) inside cooking pot’}
\]
\[
\text{self’s-(ø) inside cooking pot}
\]

The free possessive pronoun may itself be used as a noun phrase:

\[(564) \text{ìⁿé-\text{-}nè thìβà-\text{-}pèi (\text{Ihñé tsívaábe.}) ‘He i brought his i own.’}
\]
\[
\text{self-(ø) bring-(SgM)}
\]

\[15\text{Evidence for this claim is that a classifier may follow, as in 560, even the classifier -nè (ø), as in example 560.}
\]

\[16\text{By contrast, the bound possessive pronouns are never followed directly by a classifier other than -nè (ø). Thus, in 556b, ha is the noun ‘house’ and not the classifier -ha (shelter).}
\]
8.6. POSSESSIVE PRONOUNS

(565) a. Oke daaca dihñévu.
   b. Oke daaca tsane dihñétu.

\[ \text{ò-kʰè t-àːkʰà} \]
\[ \text{i-obj} \text{An youImp-give} \]
\[ \left\{ \begin{array}{l}
\text{a. } \text{tìˀɲɛ́-βɯ̀ your-thm} \\
\text{b. } [\text{ʦʰà-nɛ̀ A tiʾɲě́ }] \text{-tʰɯ̀ one-⟨∅⟩ your -sou}
\end{array} \right. \]

a. ‘Give me yours.’

b. ‘Give me some of yours.’

In example 565b the free possessive pronoun is appositive to tsʰà-nɛ̀ within the scope of the case marker. Free possessive pronouns may also be followed by one or more appositive noun phrases, as in 566. See also example 539.

(566) Oke daaca dihñéhaamɨ́ vu díwaajácúhaamɨ́ vu.

\[ \text{ò-kʰè tàːkʰà tìˀɲɛ́-ʔàːmɨ́-βɯ̀} \]
\[ \text{I-obj} \text{An give your-⟨leaf⟩-thm your knowledge-⟨leaf⟩-thm} \]
‘Give me your book (lit. your leaf-like thing, your knowledge leaf-like thing.)’

Free possessive pronouns may be used as predicate complements (which, recall, generally precede the subject in Bora) as in 567. (The final high tone in 567a and b is because they are questions.)

(567) a. mɯ̀ˀná ɛ̀ː-nɛ̀ (¿Muhná eéne?) ‘Whose is that?’

\[ \text{whose that-⟨∅⟩} \]

b. mɯ̀ˀnɛ́-ɾɛ́ ɛ̀ː-nɛ̀ (¿Muhnéré eéne?) ‘To whom only does that belong?’

\[ \text{whose-only that-⟨∅⟩} \]

c. tʰàˀɲɛ̀ ɛ̀ː-nɛ̀ (Tahñe eéne.) ‘That is mine.’

\[ \text{mine that-⟨∅⟩} \]
Chapter 9

The Genitive Construction

The genitive construction joins two nouns or noun phrases into a single noun phrase.

\[
\text{[NP NP}_{\text{modifier}} \text{ N}_{\text{head}}]\]

The meaning is generally that of “possession,” in which the first noun (phrase) “possesses” the second. (We often refer to the modifier as the POSSESSOR and the head as the POSSESSED. The modifier (possessor) precedes the head (possessed) with the tones described in section 9.1. The modifier may cliticize to the head or it may be a separate word (or phrase).

9.1 Genitive tone

The genitive construction joins the modifier (possessor) and head (possessed) into a single phonological word. Evidence for this claim is as follows:

1. When the head begins with an aspirated stop, its preaspiration is syllabified with the modifier’s final syllable. For example, in 579a (below) the final [ʰ] of the modifier is “launched by” the root \text{tsʰiːmɛ̀} ‘children’.\textsuperscript{1}

2. When the possessor ends in /i/, it may palatalize the consonant of the following possessed noun. For example \text{áːtí} \text{ɲáʔpɛ̀}/áːtínáʔpɛ̀/ ‘that (distant) person’s brother’.

\textsuperscript{1}When \text{tsʰiːmɛ} begins a phonological phrase, no preaspiration is possible because there is no preceding syllable coda with which it can be linked. Preaspiration is also blocked when the coda of the preceding syllable is already heavy, i.e., ends with a glottal stop or a long vowel.
3. Vowel harmony operates across the boundary; witness i ‘self’ becoming i in 568 and 569. See also 620 below.

(568) [ɨ́nɨːʦʰɯ́-kpà ]-ɾì (ɨ́nɨɨtsúwari) ‘with his machete’

self machete-⟨slab⟩ -oblIn

(569) [ɨ́ ˣʦʰɨːmɛ́nɛ̀] -kʰɛ̀ (ɨ́jtsɨɨméneke) ‘my child (acc)’

self child -objAn

4. Monosyllabic modifiers normally cliticize to the head. This is the case for the bound possessive pronouns listed in the first column of table 8.11, page 247.

5. Because the modifier and head form a single phonological word, the *LLX constraint may not be violated therein. In particular, it must not be violated at the boundary between the modifier and head. (This is crucial to the analysis given below.)

In forming the genitive construction, there is a floating low tone between the modifier (possessor) and the head. We call this the GENITIVE TONE and represent it as @:

MODIFIER @ HEAD

Ordinarily, if the head is mono- or bisyllabic (as in the first two columns of table 9.1), @ docks on the modifier’s final syllable. Otherwise, that is, when the head has three or more syllables, @ docks on the head’s initial syllable:

<table>
<thead>
<tr>
<th>MODIFIER (POSSESSOR)</th>
<th>HEAD (POSSESSED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(…σ)σ σ(σ)#</td>
<td></td>
</tr>
<tr>
<td>(…σ)σ σσσ(σ…)</td>
<td></td>
</tr>
</tbody>
</table>

The other tones in the word are either lexically marked or come about largely by default: The syllable preceding the one on which the genitive tone docks must bear high tone to avoid violating the *LLX constraint. At the end, unmarked syllables become low, while other unmarked syllables become high. Apparent exceptions to the defaults are due to lexically marked tones, as discussed in section 9.1.2.

If @ docks on the modifier’s final syllable, then the modifier’s penult (if present) must bear high tone to avoid violating the *LLX constraint. This pattern is carried through to the cases in which @ docks on the head:2

---

2We might understand this as follows. Suppose that the process of assigning tone in the genitive construction proceeds from left to right with only three syllable look-ahead. At the
9.1. GENITIVE TONE

The possibilities are charted in table 9.1. The numbers in brackets refer to examples; in these, the genitive low tone is indicated by a $G$ over the vowel.

Table 9.1 The basic tone patterns of the genitive construction

<table>
<thead>
<tr>
<th>MODIFIER</th>
<th>HEAD (POSS’D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(POSS’R)</td>
<td>$\sigma$#</td>
</tr>
<tr>
<td>$\sigma$#</td>
<td>$\sigma \cdot \sigma$ [570]</td>
</tr>
<tr>
<td>$\sigma\sigma$#</td>
<td>$\sigma \sigma \sigma \cdot \sigma$ [571]</td>
</tr>
<tr>
<td>$\sigma\sigma\sigma(\ldots)$</td>
<td>$\sigma \sigma \sigma \sigma \cdot \sigma \sigma \sigma(\ldots)$ [578]</td>
</tr>
</tbody>
</table>

(570) $t^{h}a^{g}\cdot \cdot h^{a}$ (tahjya) ‘my house’
my house

(571) tíːp$^{e}\cdot \cdot$ hà (dííbye ja) ‘his house’
that-⟨SgM⟩ house

(572) a. mé:ní-mú hà (méénímu ja) ‘pigs’ house’
pig-pl house
b. kpàʔáró hà (waháro ja) ‘mother’s house’
mother

(573) a. $t^{h}a^{g}$ máːt$h\cdot \cdot$ (tamájcho) ‘my food’
my food
b. $t^{h}a^{g}$ mé:ní (tamééni) ‘my pig’
my pig
c. $i^{t}$ mì:-nè (ǐhmìíne) ‘his canoe’
self transport-⟨∅⟩

(574) a. tíːp$^{e}\cdot \cdot$ máːt$h\cdot \cdot$ (dííbye májcho) ‘his food’
that-⟨SgM⟩ food
b. tíːp$^{e}\cdot \cdot$ $e^{t}$-hà (dííbye éhja) ‘his house’
that-⟨SgM⟩ thm-⟨shelter⟩ (clothes,…)

point it assigns tone to the modifier’s penult it can only “see” the next three syllables, i.e., the modifier’s final syllable and the head’s first two. Thus, it cannot know whether $G$ will dock on the next syllable—in which case it would have to assign high tone—or on the head’s initial syllable. The only possibility that will always avoid violating *LLX is to assign high tone to the modifier’s penult.
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(575) mënì-mü mātʰhò (méénímu májcho) 'pigs' food'
    pig-pl    food

(576) a. tʰá mënì-mù (támeénímu) 'my pigs'
    my pigs-plAn
    b. tʰá ʰi:pʰɛ̀ (táooohípye) 'my dog'
        my dog-(SgM)

(577) tí:pɛ̀ níβú̥kpa (dííbyé niívúwa) 'his deer'
    that-(SgM) deer

(578) a. waháro oohíbye
    b. waháro mënìmu
    c. waháromútsí mënìmu ja

a. kpàʔáró ʰi:pɛ̀ 'my mother’s dog'
    mother dog-(SgM)
    b. kpàʔáró mënì-mù 'my mother’s pigs'
        mother pig-plAn
    c. [kpàʔáró-mútsʰí mënì-mù] ʰà 'my parents’ pigs'
        mother-(DuF) pig-plAn house house

Three factors obscure the basic tone patterns presented above:
1. Stem-forming suffixes must be counted in determining the number of syllables of the head (9.1.1).
2. Some roots have lexically-specified tones that resist the normal pattern (9.1.2).
3. Suffixes that affect their host’s tones may be attached after the genitive construction is formed (9.1.3).

9.1.1 Stem-forming suffixes

Suffixes like -mu ‘plural’ and classifiers (like -pɛ ⟨SgM⟩) form part of the noun stem. When such a stem is possessed, the rule for docking the genitive tone must take into account the entire stem. This is also true of the nɛ added to ‘children’ to make ‘child’, as in 579a. For example, the roots in 579 are bisyllabic, but each is followed by a stem-forming affix that makes the stem trisyllabic. Thus, the genitive tone docks on the root’s initial syllable.

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(579) a. níβúlpá tʰiːmɛ̀-nè (níívúwáj tsɪmɛ́ne) ‘deer’s child’
   b. tʰá mé:ní-mù (támɛ́nɛ̀mu) ‘my pigs’
   c. ánú oːʔiː-ːpɛ̀ (áánú oohííbye) ‘his dog’

Further examples follow:

(580) í kpáhá-mù (self clothing-pl) íwajyámù ‘his clothes’
   í níʦʰú-kɔ̀ (self cut-⟨slab⟩) ínɪʦúwá ‘his machete’
   í mà TestBed-kɔ̀ (self eat-⟨slab⟩) ímajchówa ‘his scissors’
   í ákʰúː-βɛ̀-kɔ̀ (self sit-sln-⟨slab⟩) íacúúwɛva ‘his seat’

(581) í tʰiː-ɛ̀-mí fíjchíemí ‘his car’
   self upland-per-⟨canoe⟩

9.1.2 Lexically marked tones

Some apparent exceptions are due to the head bearing a lexically marked low tone that blocks the docking of @. For example, the first syllable of náʔpè (nahbe) ‘brother’ bears a lexically marked low tone so @ cannot dock on the modifier’s final syllable as this would violate the *LLX constraint:

(582) a. tʰá @ náʔpè (táñahbe) ‘my brother’
   b. múʔá @ náʔpè (múúhá nahbe) ‘our brother’
   c. kpáʔáɾó @ náʔpè (waháró nahbe) ‘my mother’s brother’

The addition of a suffix like -kʰɛ̀ ‘objAn’ or -mà ‘with’ may cause the first tone of náʔpè ‘brother’ to become high. However, since this suffix is added after the formation of the genitive phrase, the modifier’s final tone remains high.

(583) a. táñáhbeke
   b. ámúhá ñáhbeke
   c. táñáhbema

   a. tʰá @ náʔpè-kʰɛ̀ ‘my brother (object)’
      my brother-objAn
   b. ámúʔá @ náʔpè-kʰɛ̀ ‘your (pl) brothers (object)’
      your brother-objAn
   c. tʰá @ náʔpè-mà ‘with my brother’
      my brother-with

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We take the structure of 583a to be as follows, with the noun phrase formed before the addition of the case marker.

![Diagram of the genitive construction]

How can we understand this? Recall that \( n_ pep \) has a lexically marked low tone. This \( \text{L} \) blocks the genitive from docking on the possessor’s final syllable. Subsequently \( -\text{L}_k^e \text{objAn} \) ‘objAn’ delinks this \( \text{L} \). This analysis depends on a cyclic application of tone modifications, one when the possessor and noun are joined in the genitive construction, the other when the case marker is added. The derivation of \( t^h_\text{a} n_\text{a}^p_\text{e}^p - k^h_e \) is as follows:

![Figure 9.1 TD: tā ņahbeke]

Another situation in which the genitive tone cannot dock is when the second syllable of a trisyllabic head bears a lexically marked low tone. Such is the case for \( k^h_\text{a}r^h_\text{a}k^h_\text{a} \) ‘chicken’ in 584:

(584) a. \( t^h_\text{a} \quad c^h_\text{a}r^h_\text{a}k^h_\text{a} (\text{tácáraca}) \quad \text{‘my chicken’} \)
   b. múʔá \( c^h_\text{a}r^h_\text{a}k^h_\text{a} (\text{múúhá cáráca}) \quad \text{‘our chicken’} \)
   c. k\p̤áʔáɾó \( c^h_\text{a}r^h_\text{a}k^h_\text{a} (\text{waháró cáráca}) \quad \text{‘(my) mother’s chicken’} \)

The tone derivation for \( t^h_\text{a} k^h_\text{a}r^h_\text{a}k^h_\text{a} \) in 584a is as follows:
9.1. GENITIVE TONE

Or, the lexically marked tone may stop the ẓ from docking on the possessor. Compare 585a, where it can dock, with 585b, where it cannot:

(585) a. niːβúkpa⁶⁶⁷ máxʧʰó (níívúwa májcho) ‘deer’s food’
   b. kʰáɾakʰá ẓ máxʧʰó (cáracá májcho) ‘chicken’s food’

Some nominal roots bear lexically marked high tones. These behave differently in the genitive construction. For example, the locative noun ṭuńfù ‘beside’ bears a lexically marked high tone on its initial syllable. (Recall that, as discussed in section 7.2.3, these nouns may head genitive constructions to express spatial relations.) In 586, this lexically marked tone blocks⁴ the docking of ẓ, which would otherwise dock on the initial syllable of ụńfù because it is trisyllabic:

(586) Ditíyé ụńuhánerícyà diída.

   Ditːʰɛ́ ẓ ụńfù ʔânè-ř-í-kʰá ʔíː-ːkʰà. ‘Stay beside they beside var-obln-affirm you-be them.’

The noun kʰáːnì: ‘father’ may be a further case. It bears a lexically marked high on its initial syllable. If we assume that it is trisyllabic, we could claim that the lexically marked high blocks the docking of ẓ in 587b, thereby explaining why ẓ does not dock on the possessive pronoun:

(587) a. kʰáːnì: (cáánií) ‘father’ (citation form)
   b. tí: ẓ kʰáːnì: (díácyáánií) ‘your (sg) father’

However, in 588a–c, ẓ does dock on the head’s initial syllable, delinking its lexically marked high tone.

(588) a. tíːpʲɛ́ xkʰáːnì (díbyéj cááni) ‘his father’
   b. ámúʔá xkʰáːnì (ámúháj cááni) ‘your (pl) father’
   c. tíːpʲɛ́ xkʰáːnì: (díbyéj caaníí) ‘his father (past tense)’

This difference may hinge on whether kʰáːnì: ‘father’ is interpreted as bi- or trisyllabic: The additional syllable in the citation form (587a) may be due

⁴This “blocking” is not motivated by the *LLX constraint as in other cases.
to FLTS. If so, the root is simply bisyllabic and we have no explanation for the initial tone of 587b. Note that in 588a and b kʰáːniː: becomes trisyllabic by the application of PLTS. In 588c the additional syllable is the past tense suffix; see section 5.9.3.1, page 152.

9.1.3 Affixation

The tones of the head of a genitive construction may be affected by the addition of suffixes. Consider the final syllable of mɛːni ‘pig’ in 589. In 589a it bears low tone because of FDLT. In 589b it must become high tone because of the lexically marked low tone of -kʰopa ‘augment’. In 589c it bears the low tone imposed by -húkʰo ‘focus’.

(589) a. tʰ G amɛ́ːnì (tamééni) ‘my pig’
    my pig

      b. tʰ G amɛ́ːni-kʰopa (taméénícoba) ‘my big pig’
      my pig-aug

      c. tʰ G amɛ́ːnì-rɛ́-hɯ̀kʰo (tamééniyéjuco) ‘now only my pig’
      my pig-only-focus

9.1.4 The possessor’s penult high extension

If G docks on the modifier’s final syllable (as in figure 9.3a), the modifier’s penult—when present—must bear high tone to avoid violating the *LLX constraint. Surprisingly, this pattern—high tone on the modifier’s penult—is carried through to the cases in which G docks on the head, as represented in figure 9.3b. We will refer to this as the possessor’s penultimate high extension (PPHE).  

5The PPHE is not motivated by any factor discussed to this point. We suggest the following (somewhat teleological) motivation: Suppose that the process of assigning tone in the genitive construction proceeds from left to right with only three syllable look-ahead. At the point it assigns tone to the modifier’s penult it can only “see” the next three syllables, i.e., the modifier’s final syllable and the head’s first two. Thus it cannot know whether G will dock on the next syllable—in which case it would have to assign high tone—or on the head’s initial syllable. The only possibility that will always avoid violating the *LLX constraint is to assign high tone to the modifier’s penult.
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The PPHE is illustrated in example 590.

(590) dĩñáhbe táábake
ty ɲáˀpɛ́ tʰáːpà-kʰɛ̀ ‘your brother’s wife (object)’
your brother wife-objAn

Note that the first syllable of nả_lpɛ ‘brother’ ends up with high tone. How do we explain this? First, we assume that the structure of 590 is as given in figure 9.4, where there are two instances of genitive composition, the first joining ‘your’ and ‘brother’, the second joining ‘your brother’ and ‘wife’.

The tone derivation of tʃ ɲáˀpɛ tʰáːpà-kʰɛ̀ in figure 9.5 proceeds as follows. First, when ‘your’ is joined to ‘brother’ @ should dock on ti ‘your’ but the lexically marked low tone of nả_lpɛ ‘brother’ blocks it from doing so. Second, when ‘your brother’ is joined to ‘wife’, @ should dock on the final syllable of nả_lpɛ but its lexically marked low tone blocks this. By the PPHE the penultimate syllable of nả_lpɛ should bear high tone; this—it seems—does indeed override the lexically marked low tone, producing the high tone. Examples 591 and 592 are similar.
CHAPTER 9. THE GENITIVE CONSTRUCTION

The genitive construction is used to indicate various relationships between the referents of the modifier and head. The following list is not necessarily exhaustive and—as is often the case for functional taxonomies—the categories are not necessarily distinct.

**Ownership:**

The referent of the modifier (possessor) owns the referent of the head (possessed):

(593) \( t^hG^\) mînè (tahmiñe) ‘my canoe’

típ’ë máx’t’hò (díbye májcho) ‘his food’

típ’ë o:típ’ë (díbyé oohíbye) ‘his dog’

(594) a. áb’ëhû’pë máx’t’hò (ávyéjúúbe májcho) ‘the chief’s food’

b. áb’ëhû’pë nî:ts’hú’kpà (ávyéjúúbe nîtsúwa) ‘the chief’s machete’

---

6The low tone of \( t^hG^\) is due to the rule that, following a monosyllabic host, a bisyllabic classifier bears a low tone on its first syllable; see the introduction to the classifier list given in chapter E.
9.2. **The Uses of the Genitive Construction**

**KINSHIP:**

The referent of the head bears a kinship (father, mother,...) or social relationship to the referent of the modifier:

(595) \( tʰá \) \( \text{ŋa} \) \( ná \) \( pɛ̀ \) (táñahbe) 'my brother'
\( türɛ́ \) \( \text{ŋa} \) \( ná \) \( pɛ̀ \) (dííbyé nahbe) 'his brother'
\( türɛ́ \) \( \text{ʦʰɨ́ːmɛ̀} \) (dííbyej tsííme) 'his children'

**PART-WHOLE:**

The referent of the head is part of the referent of the modifier:

(596) \( tʰ \) \( aʔóˣʦʰɨ̀ \) (tahójtsɨ) 'my hand'

**The Argument of a Nonfinite Verb:**

The modifier is the argument of a nonfinite verb. Its thematic role may be agent, i.e., the referent of the possessor does the action indicated by the head, as in 597 and 598. The low tone on the head is the nonfinite tone, indicated by \( N \).

(597) \( türɛ́ \) \( N \) \( ɯk\)pá:pò (dííbyé uwáábo) 'his teaching'
\( türɛ́ \) \( kpákʰ \) \( ìmʲɛ́ɪ \) (dííbyé wákimyéi) 'his work'

Example 598 does not mean 'their' in the sense of ownership, but that 'they' are participants:

(598) diityé pihcyááveja
\( türɛ́ \) \( pʰ \) \( ìk\)á-ːβɛ̀-hà that-\langle AnPl \rangle gather-sln-\langle shelter \rangle
'the house where they gather (lit. their gathering house)'

(599) táwajyújte
\( tʰá \) \( kpah\)hú-ː-tʰɛ́ 'the ones I love (lit. my loved ones)'
my love-\langle AnPl \rangle

---

7. The initial syllable of \( pʰ \)\( ìk\)á-ːβɛ̀ bears low tone both because it is the antepenult of a nonfinite verb (\( N \)) and because it is the head of a genitive construction with more than two syllables (\( G \)). The initial low tone of \( türɛ́ \) is docked by \( \text{ŋa} \) \( tʰ \) e \langle AnPl \rangle.
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(600) Taabóóbej tééveri tsúúca bohɨ́joobé.

\[tʰàːpóː-ːpè ʰtʰɛ̆ːβɛ́]-ɾì ʰtʰúːkʰà pòʔi-húːkʰò-ːpè\]

cure-(SgM) influence-obln already be.alive-now-(SgM)

‘By the doctor’s influence, he is now better.’

The modifier may also indicate the patient (or theme), i.e., the person or thing to which the verb’s action is done. Such is the case in 601 where the genitive phrase means ‘the one who teaches them’:

(601) Díítyé uwááboobe waajácú páneére.

\[tí-ːtʲʰɛ́ G ɯkpáːpò]-ːpɛ̀ kpàːhákʰɯ́-ˀpʰá-nɛ̀-ːɾɛ̀\]

that-(AnPl) teach -(SgM) know-(t) much-(ø) only

‘Their teacher knows everything.’

LOCATION:

Sometimes location is indicated in relation to the referent of the modifier (above it, below it,...). In this use, the head must be one of the following LOCATIONAL NOUNS: áːʧʰì ‘outside’, àʔì ‘home’, pà ‘below’, kʰà:mè ‘above’, tᵉhũ ‘behind’, ʰɛnːpè ‘beyond’, ʰɛʧ ‘yonder’, ʰɛʃù ‘top’, ítᵉ ‘before’, íːŋɛ̀ ‘underneath’, nʰkʰàː ‘end’ pʰàːʧ ‘inside’, pʰíːʔì ‘near’, pʰínɛ̀ ‘middle’, ᵁมาตรฐาน ‘in front of’, ᵁniúũ ‘beside’. Note that several of these have lexically marked tones.

For example, ʰɛʧɛ (éllé) ‘yonder’ indicates a location at some distance from the referent of the modifier. Thus, in 604 should be understood as going to the vicinity of the referent of tíː-ːpè that-(SgM):

(602) tíːpɛ́ G ʰɛʧù (dííbyé hallu) ‘on top of him’

(603) Oke daacu éhwá hallúewávu.

\[dʰ-kʰè t-àːkʰùù ʰɛʧù e]-kpa-βù\]

I-objAn youlmp-give that-(slab) above-per -(slab)-goal

‘Give me the plank that is on top (of the other plank).’

Generally ʰɛʧɛ (éllé) ‘yonder’ indicates a location at some distance from the referent of the modifier. Thus, in 604 should be understood as going to the vicinity of the referent of tíː-ːpè that-(SgM):

(604) O péé dííbyé éleluv.

\[pʰɛ́-ːz [tíː-ːpè ʰɛʧ]-βù\]

I go-(t) that-(SgM) yonder -goal

‘I go to where he is (lit. to his yonder).’

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9.2. THE USES OF THE GENITIVE CONSTRUCTION

In considering the examples of 605, note that téhùː ‘under’ has no lexically marked tone, tsìːɲè ‘underneath’ has a lexically marked low tone, and ɯnìɯ ‘beside’ has a lexically marked high tone.

(605) a. tíːpʲɛ̀ těhúː (dííbye déjuú) ‘behind him’
   b. tíːpʲɛ̀ tsiːɲè (dííbyé lliiñe) ‘beneath him’
   c. tíːpʲɛ̀ ɯnìɯ̀ (dííbyé ɯniu) ‘beside him’

In 605a the head is bisyllabic so the genitive tone docks on the modifier’s final syllable as expected. In 605b the head’s lexically marked low tone blocks the docking of the genitive tone on the modifier’s final syllable (since this would violate the *LLX constraint); therefore the modifier’s final syllable bears a high tone. In 605c the head is trisyllabic so the genitive tone should dock on its first syllable, but this is blocked by the lexically marked high tone (so the genitive tone does not dock). This is summarized as follows:

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Further examples follow.

(606) tʰá G ɯnìɯ̀-ɾì (táúníuri) ‘at my side’
   tíːpʲɛ̀ G ɯnìɯ̀-ɾì (dííbyé únìuri) ‘at his side’

(607) Táaoohíbyé ímíllé táúníuri icyúwane.

```
Tá hó pʰL aɲɛ (pañe) ‘inside the house’
```

The locational noun pʰLaɲɛ (pañe) ‘inside’ has a lexically marked low tone on its first syllable so G may not dock on the modifier’s final syllable; see examples 608 and 609:

(608) há G pʰLaɲɛ̀ (já pañe) ‘inside the house’

(609) Tééhí pàɲe ő ájtuůmí amóóbeke.

```
Tá hó pʰLaɲɛ̀ (já pañe) ‘inside the house’
```

The relationship indicated by the locational noun need not be interpreted strictly as a physical relationship. For example, in 610 èⁿnìɲè
‘beyond’ follows the standard of comparison to indicate that someone’s strength is “beyond” that of the referent of the modifier:

(610) Dííbyé ehnííñé tsíjpóaábe.
    tíːpʲɛ́ G ɛˀníːɲɨ́ təχʰpʰàːːpɛ̀ ‘He is stronger that-(SgM) beyond be.strong-(SgM) than him.’

TIME:

A period of time (i.e., before or after) is indicated in relation to the modifier’s referent, as in 611 and 612:

(611) tíːpʲɛ́ ⊕ pɔːnè (dííbyé boóne) ‘after him’
    tíːpʲɛ́ ⊕ pɔːnɛːpɛ̀ (dííbyé boonéébe) ‘the one after him’

(612) tíːpʲɛ́ ⊕ iʔtɛ́ (dííbyé ɨhde) ‘before him’
    that-(SgM) before

Note that both pɔːnè ‘after’ and iʔtɛ ‘before (in time or space)’ have lexically marked low tones.

In a very different way, the modifier may indicate the length of time of the referent of the head, as in 613:

(613) tʃʰá-ˣkʰòòhɨ́kpákʰimɛ́ (tʃájcoojɨ wákiméi) ‘one day’s work’
    one-day work

CHARACTERISTIC OR STATE:

The head may refer to a characteristic or the state of the referent of the modifier, as in 614. See also example 671, page 282.

(614) tʰá ímɨ́ (tai̍mi) ‘my goodness’
    tʰá ʔə̍ tʃʰótʰà (təhajchóta) ‘my height’
    tíːpʲɛ́ ʔə̍ tʃʰótʰà (dííbyé hajchóta) ‘his size’
    tíːpʲɛ́ tʃʰtʃʰá (dííbye tsíjpə) ‘his strength’
    tíːpʲɛ́ tʃʰɛ́mɛ̀ (dííbyé chéme) ‘his sickness’

DESCRIPTION:

The modifier may describe the head’s referent, as in 615 and 616.

(615) pʰá tʃʰ étʰɛ́ kpaŋɛʰɛ̀ (pajtyéétə wáŋeɨjɨ) ‘salvation feast (Easter)’
    save feast

(616) mɛ́ːnɯ́-ˣkʰáʦʰ G ɨ́mɯ́nàà (méénujcátsi múnaa) ‘soldiers’
    beat-recip people

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9.2. THE USES OF THE GENITIVE CONSTRUCTION

SPHERE OF EXISTENCE:

The modifier indicates the place in which the head’s referent resides.

(617) [tʰá ʰɨ́njʊ́-hɨ ɪ ɲʊ́-hɨ] (táiiũũjì múnàa) ‘my country’s people’
    my dirt-{disk} people

(618) tʰɛ́-kʰömí ʰáβʲɛ́h ɪ-ːpɛ̀ (técoomí avyéjuúbe) ‘that town’s chief’
    that-{town} reign-{SgM}

SET MEMBERSHIP:

The head’s referent is a member of the set indicated by the modifier.
In example 619 i ‘self’ refers to a collection of objects from which some are identified as dirty:

(619) íñehníñéhjì
    í nì ɲɛ́-ɲɛ́-hì ‘the dirty ones (from among them)’
    self bad-{ø}-pl

In 620 i ‘self’ refers to the laundry, identifying the subset consisting of the white pieces:

(620) ...ménijtyú teene ìtsìtsííne...
    mé nì tʰjʊ́-tʰɛ̀ː-nè A í tʰìsʰɪ-ːpɛ̀
    SAP wash-{t} that-{ø} self white-{ø}
    ‘...we wash the white ones (from among them)…’

In example 518, page 229, i ‘self’ refers to the set of chicks from which one is identified as rather ugly. See also example 516, page 228.

ONOMASTIC:

The head may refer to the name borne by the referent of the modifier, as in 621 and 622:

(621) Cááni múmeri teene újcuúbe.
    [kʰáːni mème ]-ɾì tʰɛ̀ː-nè úrʰkwː-ːpɛ̀
    father name -oblIn that-{ø} receive-{SgM}
    ‘He received it in his father’s name.’

(622) Dííbye múme Jóááá á.
    [tɪː-pɛ̀ ʰá] hóááá ‘His name is John.’
    that-{SgM} name John

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RELATIVE CLAUSE:

A relative clause and the head that it modifies may be joined by the genitive, with the relative clause as the possessor and the modified noun as the possessed. In 623 and 624 the genitive tone is indicated by G over the vowel. See also section 18.1.3.

(623) dille tsíímávátuné hajchóta

[tí-tʃè tsʰɪːmá-βá-tʰʊ-nɛ́]\(^8\) ʔaʧʰó-tʰà

that-(SgF) children-have-neg-(n) length.of.time

‘during the time she had not given birth’

(624) wójpiike úújétúné badsíjcaja

[kpá'pʰiː-kʰè úr:hé-tʰʊ-nɛ́] patsfʰà-hà

man-objAn arrive-neg-(n) adolescentF-sg

‘young woman who has not been with a man’

\(^8\)tsʰiːma- ‘children’ is tsʰiːme- with the /e/ assimilated to the /a/ of the following suffix.
Chapter 10

Case and Grammatical Relations

Case marking suffixes indicate the role of a noun phrase (or subordinate clause) with respect to the clause within which it occurs. Bora has the following case markers: –ø ‘nominative’ for subjects (10.1), -kʰe ~ ø (with animate and inanimate phrases, respectively) ‘direct object’ (10.2), -βɯ ‘goal’ or ‘theme’ (10.3), -tʰɯ ‘source’ (10.4), -ri ‘inanimate obliques’ (10.5), -ma ‘with’ (10.6), and -ʧìːʔɛ̀ ‘motive’ (10.7). In addition to these, there are two “pseudo-cases”: -ˀtɯ̀ ‘comparative’ (10.8) and -ˀ ‘vocative’ (10.9).

Some of the case-marking alternatives are illustrated in 625. 625a has a singular transitive verb whereas 625b–d have an intransitive verb.

(625) a. Oke ihjyúnuúbe.
   b. Óhditu ihjyúvaábe.
   c. Óóma ihjyúvaábe.
   d. Táhallúrí ihjyúvaábe.

\[
\begin{align*}
\text{a. } & \text{ò-kʰè} & \text{ìʔhúú-nùr-}:pè \\
& \text{I-objAn} & \text{mouth-do-}\langle\text{SgM}\rangle \\
\text{b. } & \text{ó-tù-(tʰù) ñ} & \text{ìʔhúú-}:pè \\
& \text{I-anim-sou} & \text{mouth-have-}\langle\text{SgM}\rangle \\
\text{c. } & \text{óː-}:mà & \text{ìʔhúú-}:pè \\
& \text{I-with} & \text{mouth-have-}\langle\text{SgM}\rangle \\
\text{d. } & \text{tʰá ə}:\text{afjú-}:ří & \\
& \text{my top-oblí\text{ln}} & \\
\end{align*}
\]
‘He talks
\[
\begin{align*}
\text{a. to (at) me.’} & \quad \text{(object)} \\
\text{b. about me.’} & \quad \text{(source)} \\
\text{c. with me.’} & \quad \text{(co-subject)} \\
\text{d. in my favor.’} & \quad \text{(inanimate oblique)}
\end{align*}
\]

### 10.1 Subject

Subjects are not marked for case; that is, the nominative is unmarked. (An exception is discussed below.) Subjects are recognized by the absence of another case marker, by their position in the sentence, or by the classifier suffixed to the verb.

There are three possible patterns for the subject and predicate, as represented in 626a, b, and d:

\[
\begin{align*}
\text{(626) a. (NP} \text{subject}) \quad \text{[predicate …verb}{\{t\}} \} \\
\text{b. [predicate …verb]-classifier} \text{subject (A NP} \text{subject}) \\
\text{c. } \ast \text{NP} \text{subject} \quad \text{[predicate …verb]-[classifier} \text{subject]} \\
\text{d. [predicate complement } \{\text{NP AP}\} \} \text{NP} \text{subject (V copular)}
\end{align*}
\]

First, as represented in 626a, the subject may be a noun phrase preceding the verb, as in as in 627–629. In this case the verb is followed by -\(\text{ʔi}\) \(\langle t \rangle\) or, when negative, by -\(\text{nɛ}\) \(\langle n \rangle\) as in 837, page 326. This order is the one most commonly used to introduce a referent into the discourse.

\[
\begin{align*}
\text{Ávyéjuube llííñájatéhi.} \\
\text{áβʲɛ́hɯ̀-ːpɛ̀} \quad \text{ʧíːɲáhà-tʰɛ́-ʔì} \quad \text{‘A/The chief went to hunt.’} \\
\text{reign-(SgM) hunt-go.do-(t)}
\end{align*}
\]

\[
\begin{align*}
\text{Mítyane mɨ́ amúnaa tsááhi.} \\
\text{mítʲʰà-nɛ̀mɨ́} \quad \text{Lamɯ́nààʦʰáː-ʔì} \quad \text{‘Manypeoplecome.’} \\
\text{many-(ø) people come-(t)}
\end{align*}
\]

In 629 the subject is a relative clause headed by the classifier -\(\text{ːpɛ}\) \(\langle\text{SgM}\rangle\):

\[
\begin{align*}
\text{(629) Llííñájaatéébé mujtáhi.} \\
\text{[NP} \text{øi} \quad \text{ʧíːɲáhà-tʰɛ́ } \text{-ːpɛ}_i \quad \text{mùxtʰ á-ʔì} \quad \text{‘The one who went to hunt got lost.’} \\
\text{hunt-go.do } \text{-(SgM) be.lost-(t)}
\end{align*}
\]

Second, as represented in 626b, a third person subject may be indicated by a classifier suffixed to the verb. This order is generally used if the
subject has been previously introduced into the discourse. For example, in 630 the subject is the classifier -\(\ddash\)pe (-:be) \(\langle\text{SgM}\rangle\):\(^1\)

\[\text{tʃíːɲáhàː-tʰɛ́-ɛ́pɛ̀} \quad (\text{Llííňájaatéébe.}) \quad \text{‘He went to hunt.’}\]

A classifier subject may be followed by an appositive subject noun phrase, as in 631:

\[\text{(631) “Juúju” neebéváa íllií.} \quad \text{“‘OK,” said his son.}\]

Every clause must have a subject. If there is no classifier on the verb, there must be a preverbal subject.\(^2\) Further, as in 626c, preverbal subjects do not co-occur with classifier subjects;\(^3\) see the preverbal subject constraint discussed on page 129.

Third, as represented in 626d, if the predicate is a noun or adjective phrase, the subject usually follows the predicate, as in 632:

\[\text{(632) nɛ́ˀnì⁽ˀ⁾hɯ̀ːβà (...néhní juúva) ‘...it is a bad trail.’}\]

- bad trail

We mentioned above that there was one exception to the claim that the nominative case is unmarked. As stated in section 8.1, when a personal pronoun is used as a preverbal subject, if it has a long vowel, this is shortened. For example, tì-ːpʲɛ̀tìpʲɛ̀, as in 633:

\[\text{(633) Tsá dibye pééityú.} \quad \text{‘He does not go.’}\]

This also applies in subordinate clauses, as in 634. (See also 864, page 332.)

\[\text{(634) Dille téhullévú péhajchíí ó imíllé díílema o pééneé.} \quad \text{‘If she goes over there, I want to go with her.’}\]

---

\(^1\)The tone of -\(\ddash\)pe \(\langle\text{SgM}\rangle\) is blocked by the low imposed by -\(\ddash\)tʰɛ́ ‘go to do’.

\(^2\)This is true in both main and subordinate clauses, although it may be that in cases of relativization into the subject, like example 629, the subject is not overt in the modifying clause.

\(^3\)We mean, of course, except for -\(\ddash\)t \(\langle t \rangle\) or -\(nɛ \langle n \rangle\) filling the postverbal subject position when there is a preverbal subject.
However, if the pronominal subject is followed by an appositive phrase, the length is retained, as in 635:

(635) Aanéváa diibye bɨɨrúmujɨ úújetétsó wañéhjivu…
àː-nɛ́-β H a-L a tìː- ⟨pɨ̀ːɾɯ́mɯ̀-hɨ̀⟩
thm-(ø)-rpt-rem that-(SgM) agouti-sg
úːhɛ̀-tʰáː-tʰáː-ʔì kpanse'hi-βù
arrive-go.do-cause-⟨t⟩ festival-goal
‘…he, the agouti, caused her to arrive to a party,…’

Consider example 636. In 636a the subject tì-pʲɛ̀ ‘he’ is followed by the appositive noun phrase tʰáː kʰáːnì: ‘my father’, so retains the length. By contrast, in 636b, where the appositive noun phrase does not directly follow tì-pʲɛ̀, the length is suppressed.4

(636) a. Diibye tááčááni cheméhi.
b. Dibye chemé tááčáánií.
a. tì-pʲɛ̀ Ŕ tʰáː: Ŕ kʰáːnì tʰɛ̀mɛ-ʔì ‘He, my father, my father be.ill-⟨t⟩ is sick.’
b. tì-pʲɛ̀ Ŕ tʰɛ̀mɛ́-ʔì Ŕ tʰáː: Ŕ kʰáːnì: ‘He is sick, be.ill-⟨t⟩ my father my father.’

We now consider the personal pronominal clitics in table 10.1.5

<table>
<thead>
<tr>
<th>Table 10.1 Personal pronominal subject proclitics</th>
</tr>
</thead>
<tbody>
<tr>
<td>o  (o)</td>
</tr>
<tr>
<td>uu (u)</td>
</tr>
<tr>
<td>ti  (di-)</td>
</tr>
<tr>
<td>me  (me-)</td>
</tr>
<tr>
<td>i⁶ (i-)</td>
</tr>
</tbody>
</table>

The pronouns of table 10.1 indicate the subject, cliticizing to a following verb. The close relationship between the proclitic and the following verb root is evident in the following:

1. Nothing can intervene between the proclitic and the following verb. If the proclitic bears a suffix, it is “doubled,” as discussed below.

4Compare 636b, which has a preverbal subject, with 645, in which the subject follows the verb.
5Note the similarity to the bound possessive pronouns of table 8.11, page 247.
6Strictly speaking, this is an anaphor, not a pronoun; see section 8.3.
10.1. SUBJECT

2. The proclitic and the verb root’s initial syllable may not both bear low tones because these form a single tonal phrase which must respect the *LLX constraint.

3. tì ‘you (imperative)’ and i ‘self’ cause a following consonant to be palatalized. (Palatalization applies across word boundaries only if the words belong to the same phonological phrase.) Further, t(i) ‘you (imperative)’ may be tì, t, or ø (nothing) depending on the number of syllables of the root and whether it begins with a consonant or a vowel.

If o ‘I’, u ‘you’, or me ‘SAP’ is used as the subject and bears any suffix, then it is repeated, procliticized to the verb. We will call this PRONOUN DOUBLING. For example, in 637 o ‘I’ is followed by -i ‘projected time’, so the pronoun is repeated:

(637) ó-i  ó pʰɛ́-hùkʰóː-ʔì (Ói o péjucóóhi.) ‘I am now about to go.’
I-PT I go-now-(t)

In 638 u ‘you’ is doubled:

(638) ür-βà üu pʰɛ́-ɛ́-ʔì (Uuva ú peéhi.) ‘They say that you-rpt you go-fut-(t) you will go.’

In 639 me ‘SAP’ is doubled; the second cliticizes to the verb:

(639) Metsu meere mepéékií.
let.us SAP-only SAP go-pur

‘Let’s go alone.’

When me ‘SAP’ is the subject, it can be preceded by mùʔà ‘we (ex.)’, mùʔtsʰì ‘we (DuM)’, or mùʔpʰì ‘we (DuF)’. A word may intervene between the free pronoun and the pronominal clitic, for example, tîpʰèkʰè in 640:

(640) Muha díbyeke méájtumííi.
mùʔà tî-pʰè-kʰè mé áxtʰùmí-ʔì ‘We saw him.’
we that-(SgM)-objAn SAP see-(t)

‘We saw him.’

A preverbal subject noun phrase referring to a speech act participant (i.e., not third person) will always be accompanied by an appositive pronominal subject proclitic, as in 641 and 642:

(641) O ñyároobe ó cheméhi.
[ò fʰkʰá-rò ]-pè Á ó tʃʰɛ́mè-ʔì
I be-frs -(SgM) I be.ill-(t)
‘Even I am sick.’ (lit. ‘Even being me, I was sick.’)

(642) Cóómííi o ñyáaabe ó ájtyumíí díbyeke.
[NP [ʃkʰámi-ji ò fʰkʰá ]-pè] Á ó áxtʰùmí-ʔì
town-oblIn I be -(SgM) I see-(t)
CHAPTER 10. CASE AND GRAMMATICAL RELATIONS

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tí-pʰɛ̀-kʰɛ̀
that-(SgM)-objAn
‘When I was in town I saw him (lit. Being in town, I saw him).’

Adverbs (and other constituents, e.g., direct objects as in 640) may intervene between the subject noun phrase or free pronoun and the subject agreement proclitic. Examples follow:

(643) Ói íícuí o péjucóóhi.
ó-ɪ i:kʰúuí ó pʰɛ̀-hùkʰóː-ʔi ‘I’m now about to go quickly.’
I-PT quickly I go-now-(t)

(644) Cóómiyi o jcyaa be tshuullétú dííbyeke ó ájtyumíhi.
[Np]kʰóːmí-jì o f’k’hà ]-pɛ̀
town-obllIn I be -(SgM)

‘When I was in town, I saw him from afar.’

Whether the subject is an overt pronoun or a classifier suffixed to the verb, another noun phrase may be appositive to it. The appositive noun phrase may follow the pronoun, the verb, or the classifier. In 645 the noun phrase is appositive to the classifier -ːpɛ̀ (SgM). Compare this with 636a and b, in which the noun phrase is appositive to a free pronoun.

(645) Chémeebe táácaáníí.
ʧʰɛ́mɛ̀-ːpɛ̀ [tʰáː kʰáːnìː]
‘He, my father, is sick.’
be.ill-(SgM) my father

The appositional phrase may be a relative clause. For example, in 646 tʰá nà-pɛ̀ ‘my brother’ is followed by tʧʰɛ́mɛ̀-ɾòːpɛ̀ ‘the one who is sick’:

(646) Táñahbe chéméroobe wákímyeñéjucóóhi.
[tʰá kʰáːnìː-pɛ̀] [tʧʰɛ́mɛ̀-ɾò ]-pɛ̀
my sib-(SgM) be.ill-frs -(SgM)

kpákʰímɛ̀-tʰɛ̀-hùkʰóː-ʔi
work-go.do.now-(t)

‘My brother, sick though he be, has now gone to work.’

In 647 the noun phrase tsʰif琼 iːnyu hi múná’àpʰì ‘a person from a foreign country’ is appositive to ánù ‘this (SgM)’:

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10.2 -ke ~ -Ø ‘object’

Inanimate direct objects are unmarked. Animate direct objects are marked by -{\text{k}[^{h}]}c (-ke) ‘objAn’.

The direct object may be a pronoun, a noun phrase, or a nominalized clause. For example, in 648 it is the pronoun o ‘I’. Since this is animate, it bears -{\text{k}[^{h}]}c ‘objAn’:

\[(648)\text{o-} \text{{\text{k}[^{h}]}c} \text{i:} \text{t[^{h}]}c: -pë \quad (\text{Oke ñtëë.}) \quad \text{He looks at me.}\]

\[\text{I-objAn look-\langle\text{SgM}\rangle}\]

In 649 the direct object is ðumëʔë ‘tree’; since it is inanimate it does not bear case marking:

\[(649)\text{ðumëʔë} \text{i:} \text{t[^{h}]}c: -pë \quad (\text{Úmehe ñtëë.}) \quad \text{He looks at the tree.}\]

\[\text{tree-\langle\text{tree}\rangle look-\langle\text{SgM}\rangle}\]

In 650 the direct object is (when present) ð-k[^{h}](I-objAn), followed by the appositive relative clause ð t[^{h}]:pë ‘(the one) that was crying’:

\[(650)\text{Oke o táábeke ñtëë.}\]

\[\text{ð-k[^{h}]}c \quad \text{A} \quad \text{[NP \text{[Sð t[^{h}]}] -pë \text{-}k[^{h}]}c \text{i:} \text{t[^{h}]}c: -pë \quad \text{I-objAn I cry -\langle\text{SgM}\rangle -objAn look-\langle\text{SgM}\rangle} \quad \text{He watches me crying. (i.e., as I cry)}\]

Example 651 illustrates the universal tendency for objects to be more affected than phrases with other grammatical relations:7

\[(651)\text{a. Dííbyeke ñdáátsólleébe.}\]

b. Dííbyedi(tu) ñdáátsóveébe

\[\text{a. t[^{f}]}:p[^{h}]: -k[^{h}]}c \quad \text{ítáts[^{h}]}c ñ-t[^{f}]: -pë \quad \text{that-\langle\text{SgM}\rangle -objAn pity-sTr-\langle\text{SgM}\rangle}\]

\[\text{b. t[^{f}]}:p[^{h}]: -tí-(t[^{h}]}u) \quad \text{ítáts[^{h}]}c ñ-βc: -pë \quad \text{that-\langle\text{SgM}\rangle -anim-sou pity-sIn-\langle\text{SgM}\rangle}\]

7Recall the celebrated example *He loaded the truck with hay versus He loaded hay onto the truck*; the former, in which the truck is the direct object, suggests that the truck is more greatly affected than the latter, in which the truck is in an oblique relation.
a. ‘He takes pity on him (and does something about it).’

b. ‘He feels sorry for him (but does nothing about it).’

In the next subsections we will treat object complements, objects that are addressees, and objects that cliticize to the verb.

### 10.2.1 Object complements

The direct object may be an object complement, as in 652 and 653, in which -nɛ ⟨ø⟩ heads the structure: [NP [S ... ][N-ne]] (See section 16.2.2 for further discussion of such object complements.)

(652) ó ɪmɨtʃeː-̀ [o máxʧʰò ]-nɛ̀ (Ó imíllé o májchone.) ‘I want
I want-⟨t⟩ I eat -⟨ø⟩ to eat.’

(653) Ó ájtyumɨ u áákityéne.
ó áxʱɯ́ːmɨ-̀ [ɯ̀ áːkʰìtʃʰɛ ]-nɛ̀ ‘I saw you fall.’
I see-⟨t⟩ you fall -⟨ø⟩

### 10.2.2 The addressee

A noun phrase indicating the addressee (the person to whom speech is directed) is marked with - hacer (-ke) ‘objAn’. Since the addressee is virtually always animate, this use of -kʰɛ is natural in light of (1) the case marking pattern of aˣkʰɯ ‘give’ that marks the recipient with -kʰɛ, and (2) the apparent preference for treating animate goals or recipients as direct objects. For examples, see 826 and 959.

### 10.2.3 Objects as cliticized classifiers

When a clause has a preverbal subject, the direct object may occur as a classifier cliticized to the verb, displacing the -tːʔi ⟨t⟩ that normally follows when there is a preverbal subject.

(654) a. Tsúúca ó májchone.
   b. Tsúúca ó ímbájchoja.
   a. tsʰúrʱʰà á máxʧʰò-nɛ̀ ‘I have already eaten it.’
      already I eat-⟨ø⟩
   b. tsʰúrʱʰà ó íṁ póštʰò-hà ‘I have already fixed the house.’
      already I fix-⟨shelter⟩
This is only possible in contexts in which the direct object is highly topical (thematic), as when responding to a question about the object. Perhaps these are not sentences, but relative clauses (in elliptical responses). As such, the high tone on the first syllable of each verb marks the clause as subordinate.

### 10.2.4 Causee

A **causee** is the subject of a clause that has been made causative (not to be confused with the *causer*, the one who does the causing). As in many languages, in Bora, the causee becomes the direct object, as represented schematically in figure 10.1:

![Diagram of grammatical relations: causatives](image)

Figure 10.1 Grammatical relations: causatives

For example, the subject of 655a is ó ‘I’; when this clause is made causative as in 655b, the subject becomes the causee and is marked as a direct object:

(655) a. Ö dsìsinéhi.

b. Oohíbyé oke dsìinetsóhi.

a. SUBJECT VERB
   ó tsi:né-ʔì ‘I ran.’
   I run-(t)

b. CAUSER CAUSEE VERB + CAUSE
   ó:kçi-ːpʲɛ́ ò-kʰɛ̀ ʦɨ́ːnɛ̀-ʦʰó-ʔì ‘The dog made me run.’
   dog-(SgM) I-objAn run-caus-(t)

Even when a transitive verb is causativized, the causee is marked as a direct object; see examples 255, page 144, and 669–671, page 281. Causatives are discussed further in sections 10.3.3 and 5.8.1.

### 10.3  -vu ‘goal’ or ‘theme’

The suffix -βǔú (-vu) ‘goal, theme’ marks a goal, i.e., the end point of a trajectory (10.3.1). With certain verbs it marks the theme (10.3.2). It also marks the direct object of a causativized transitive verb (10.3.3).

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When -βɯ follow an animate phrase, that phrase must first bear -(⁰)ti ‘animate’, as in 656:

(656) Ó úújeté díbyedívu.
ó uːhɛ̀-tʰɛ́-z tiː-ᵖɛ̀-tɪ-βɯ̀ ‘I caught
I arrive-go.do-(t) that-(SgM)-anim-goal up to him.’

The glottal stop of -(⁰)ti ‘animate’ occurs only after the monomoraic morphemes o, u, and me; see, for example, 659.

10.3.1 Goal

When a clause refers to some trajectory through space, the GOAL (i.e., the end point of the trajectory) may be indicated by a noun phrase bearing -β⁽ʲ⁾ɯ ‘goal’, as in 657 and 658, as well as 782, page 312.

(657) òpʰɛ́ː-ˀ tʰɛ́-ʔɯ̀ʧɛ́-βɯ̀ (O péé téhullévu.) ‘I go over there.’
I go-(t) that-(yonder)-goal

(658) Táñaalle ácuuvé ácúúveǐcyú hallúvu.
tʰá ŋjaː-ʧɛ̀ ākʰʊr-βɛ́-z [ǎkʰʊr-βɛ̀-fʰkʰʊ ŋaːʧɪ]-βɯ̀
my sib-(SgF) sit-Sln-(t) sit-Sln-(frame) top -goal
‘My sister sat down on top of the chair.’

The notion of a physical path (trajectory) has metaphorical extensions, as seen in 659:

(659) Múu óhdivu cátsɨpááve.
móżù uː-ˀtɪ-βɯ̀ kʰ砚ɨpʰá-ːβɛ́ ‘You should trust in me.’
SAP.sg I-anim-goal dependImp-Sln

Ordinarily -β⁽¹⁾u ‘goal’ and -tʰɯ ‘source’ are not used in the directional sense directly following an animate noun. Instead of saying, for example, to him, one would normally say to the place where he is, using a locative noun in the genitive construction:

(660) tíː-ᵖɛ̀ ětʃɛ̀-βɯ̀ (díbye éllevu) ‘to the place where he is’
that-(SgM) place-goal

10.3.2 Theme

There are two cases in which -βɯ marks “objects”. One is with aʰkʰɯ ‘give’ (and perhaps a few other verbs). The other is with causatives. We will gloss these two uses ‘theme’.

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Verbs like \( \text{pʰíkʲʰò} \) ‘put’, like English put, subcategorize for a goal (the end point of the trajectory along which the patient/theme moves). For these verbs, the patient/theme becomes the direct object, marked with -kʰɛ (-ke) and the goal is marked with -βɯ (-vu) ‘goal’, as represented in figure 10.2 and illustrated in 661.

\[ \begin{array}{ccc} \text{AGENT} & \text{PATIENT/THEME} & \text{GOAL} \\
\text{SUBJECT} & \text{DIRECT OBJECT} & \text{GOAL} \\
\text{(nominative)} & -ke & -vu \\
\end{array} \]

Figure 10.2 Grammatical relations: verbs like \( \text{pícyo} \) ‘put’

(661) Ááwavúváa pícyoiñuube téniihyo méwáníihyo]ke...
\[ \text{á:}-\text{kpa}-\text{βú}-\text{βá-á} \quad \text{pʰíkʲʰò-íɲɯ̀-ːpɛ̀} \]
\[ \text{thm-⟨slab ⟩-goal-rpt-rem put-do.go-⟨SgM⟩} \]
\[ [\text{tʰé-}\text{ni:[]}\text{ί} \quad \text{mɛ́kpá-ní:[]}\text{ί}]-\text{kʰɛ} \]
\[ \text{that-⟨mother⟩ wife-⟨mother⟩-objAn} \]

‘He put his wife into the shelter….’

However, with some verbs, the theme (the thing that moves) is marked with -βù. For example, in 662, the hands are the things that are moved, and are marked with -βù ‘theme’; the structure of 662 is given in figure 10.3.

(662) ...tsaalle ímujpáñéécú íhyójtsivu iwátájçonema.
\[ \text{tsʰà:-tfɛ} \quad [\text{í} \quad \text{mùr}^{+}\text{pʰáŋe-}\text{kʰúi} \quad \text{í} \quad \text{heirotsʰi-βù} \quad \text{come-⟨SgF⟩} \quad \text{self breast-dual self hand-thm} \]
\[ \text{í} \quad \text{kpátʰá-}\text{xkʰó} \quad \text{]-nɛ-mà} \quad \text{self cover-mTr} \quad \text{-⟨event⟩-with} \]

‘Therefore she came covering her breasts with her hands.’
There are two ways we might think of this. On the one hand, we might regard kpàtʰáˣkʰò ‘cover’ as a transitive verb that subcategorizes for a direct object, the object covered. On this view, ʔʲ ᵀʰɨ ‘hand’ would be regarded as an adjunct that bears -βɯ̀ (-vu) ‘theme’ because it is the thing that moves. This is the first alternative presented in figure 10.4. On the other hand, we might regard kpàtʰáˣkʰò ‘cover’ as subcategorizing for both a theme and a goal. If one expects the goal to be marked with -βû (-vu) ‘goal’ and the theme as a direct object, then the actual case marking would require inversion, as represented in the second alternative of figure 10.4.

We withhold judgement on this case. However, there is a case where an inversion analysis is motivated for Bora. The verb àᵏʰᵗù (ajcu) ‘give’ (and perhaps a few other verbs) presents the recipient (goal) as the direct object and marks the theme (that which passes from the giver to the recipient) with -βû (-vu) ‘goal/theme’; this is represented in figure 10.5:

---

8 This inversion is similar to a phenomena described for Seri by Marlett (1993).
For example, in 663 the baby is the goal or recipient but marked as a direct object, while the food, the thing given, is marked with -βùu 'goal/theme':

(663) Tsɨɨju įjtsɨɨméneke ajcú majchóvu.

recipient theme

ʦʰɨ̀ːhɯ̀ ɨ́ ˣʦʰ ɨːmɛ́nɛ̀-kʰɛ̀ ñkʰɯ́-ʔɪ́-βɯ̀
mother self child-objAn give-⟨t⟩ food-thm

‘The mother gave food to her baby.’

Further examples follow:

(664) Ìłłkyeváa ájcuube íaňújuvu.

recipient theme

íʧí-kʲʰɛ̀-β H a-L a áˣkʰɯ̀-ːpɛ̀ [í G Naɲɯ́-hɯ̀ ]-βɯ̀
his.son-objAn-rpt-rem give- ⟨SgM⟩ self shoot- ⟨gun⟩ -thm

‘He gave his gun to his son.’

(665) Oke ájcuube cáracádívu.

recipient theme

ò-kʰɛ̀ áˣkʰɯ̀-pɛ̀ kʰáɾàkʰá-tí-βɯ̀ ‘He gave me
I-objAn give- ⟨SgM⟩ chicken-anim-thm a chicken.’

The theme may be left implicit, as in 666:

(666) ð-kʰɛ̀ t-á:kʰùu (jOke daácu!) ‘Give (it) to me!’
I-objAn youImp-give

Significantly, with aˣkʰu ‘give’ the recipient must be animate. (In Bora it is not possible to say, for example, He gave the village a boat.) Thus, the inversion is motivated as a process to promote an animate recipient to direct object, where its animacy is made explicit by -kʰɛ ‘objAn’, with the theme becoming an oblique marked by -βùu ‘goal/theme’. For aˣkʰu ‘give’, this inversion is obligatory.

Are there other verbs that behave this way? Above, in connection with example 662, we mentioned this possibility for kpàtʰáˣkʰó ‘cover’ but came to no conclusion. Note that its goal is not animate (all body parts being inanimate) so would not result from an animacy-motivated inversion.
Example 667 suggests more strongly that a clause with pʰɨkʰò ‘put’ can undergo inversion:

(667) Ané(h), wa(h) pícyaméí dípamíjíwuúnevuj.
   then sis putImp-vp your all-⟨ornament⟩-pl-dim-thm-voc
   ‘Then, sis, put on all your little jewels.’

The goal is the girl and theme is the ornaments. A possible analysis is that—by inversion—the goal becomes the direct object and the theme becomes an oblique. However, the goal-become-object does not surface because of reflexivization. This is represented in 10.6:

![Diagram](image)

Figure 10.6 Grammatical relations: ‘Put on all your little jewels.’

Consider example 668. Understood as ‘The mother put jackets on the children…’ it seems like a convincing case of inversion. However, this is not so because urʰkʰo does not mean ‘put on’ but ‘insert into’, so it is natural to treat the children as the direct object and the jackets as the goal.

(668) Tsɨ́meke tsɨɨju tsucójaanévú ujcó tsúcó teene néénélliíhye.
   children-obj An mother cold-⟨shelter⟩-pl-goal insert-⟨t⟩
   [tsʰúkʰó⁽ˀ⁾ tʰɛ̀ː-nɛ̀ nɛ́ː]-nɛ́ːʧìːʔʲɛ̀
   cold that-⟨ø⟩ say -(⟨ø⟩)-motive
   ‘The mother inserted the children into the jackets because it was cold.’

10.3.3 The object of a causativized verb

When a causative is formed from a transitive verb, the object of that verb is generally marked with -βɯ, (-vu), as represented in figure 10.7:
10.3. -VU ‘GOAL’ OR ‘THEME’

For example, compare the simple transitive in 669a with the corresponding causative in 669b. (See also 670.)

(669) a. Ó tsajtyé cáracáke.
   b. Oke tsajtyétsoobe cáracádíúvú.

   a. SUBJECT  DIRECT OBJECT
       ó     tsʰàˣtʲʰɛ́-ˀ kʰáɾàkʰá-kʰɛ̀
       I     take-{t}  chicken-objAn
   b. CAUSEEE  THEME
       ð-ðʰɛ́   tsʰàˣtʲʰɛ́-tsʰó-pê  kʰáɾàkʰá-tí-βɯ̀
       I-objAn  take-caus-{SgM}  chicken-anim-thm

   a. ‘I took the chicken.’
   b. ‘He made me take the chicken.’

Why is -βɯ̀ (-vu) ‘goal/theme’ the case marker of choice in 670?

(670) Cánà bo oke duhyétsó díhjya náávevu.
   kʰánà⁽ˀ⁾pò⁽ˀ⁾ò-kʰɛ̀ t-ɯ̀ʔʲɛ́-ʦʰó
   suggest urge I-objAn youlmp-see-caus

   [ [tǐثن  hʰɛ̄] ná:βɛ̀ ]-βɯ̀
   your  house picture  -thm

   ‘I urge you to show me a picture of your house.’

There are two possible explanations. First, for many verbs the direct object is a theme (in the semantic sense), so -βɯ ‘theme’ may be used to preserve the mapping between the semantic role and the form that generally marks it.

Second, there may be reason to posit a grammatical relation of OBLIQUE OBJECT which would subsume GOAL and be marked by -βɯ. This would follow direct object on the following hierarchy of grammatical relations:

\[
\text{SUBJECT} \succ \text{DIRECT OBJECT} \succ \text{OBLIQUE OBJECT} \succ \text{other OBLIQUES}
\]
The direct object of a causative verb would be marked with -βɯ because its prior grammatical relation, direct object, is usurped by the Causee; to have a distinct case marking it takes the next relation in the hierarchy, the oblique object.

While the object of a transitive is generally marked with -βɯ ‘thm’ when causativized, this is not always the case. In 671 it is treated as an inanimate object and thus has no explicit case marking. We do not know why.

(671) Iñéhni meke úújétsoóbe.

‘He showed us his ugly moral character.’

10.4 -tu ‘source’ (ablative)

This section deals with -tʰɯ (-tu) ‘source’, ‘location’, and so forth, which in traditional terminology might be called an “ablative.” The discussion is divided into the following topics: some matters of form (10.4.1), source (10.4.2), partitive (10.4.3), about or concerning (10.4.4), site of attachment (10.4.5), time after (10.4.6), and contrast (10.4.7).

10.4.1 Some matters of form

When -tʰɯ follows an animate phrase, it must first bear -⁽ˀ⁾tì ‘animate’, as in 672:

(672) Íñáalledítyú tsaábe.

‘He came from his sister.’

The glottal stop of -⁽ˀ⁾tì ‘animate’ occurs only after the mono-moraic morphemes o ‘I’, u ‘you’, and me ‘SAP’. See example 673:

(673) Óhdi(tyu) ihjyúvalle.

‘She talks about me.’

After -⁽ˀ⁾tì ‘animate’, -tʰɯ ‘source’ is often left implicit. For example, it need not be explicit in 674. (See also examples 673 and 682.)
(674) Díiblyedi(tyu) ċdaátsóvéébe.
  tí:pë-tí-(thè) itá:tsóóbé:pë ‘He has compassion for him.’
  that-(SgM)-anim-sou pity-(SgM)

After -ts’hì (place), -t’h(j)ì ‘source’ is not aspirated; it becomes -t’hì, as in 675:

(675) Tétsihdyu tsaábe.
  thé-th(h)ì-t’hì thà:pë ‘He comes from that place.’
  other-(place)-sou come-(SgM)

10.4.2 Source

A SOURCE, that is, a location from which something is said to move, the
initial point of a trajectory, is indicated by a noun phrase bearing -th’ì ‘source’. Examples follow:

(676) òt’háː-’ t’hë-ʔùʧɛ̀-t’hùù (O tsáá téhullétu.) ‘I come from
  I come-(t) that-(yonder)-sou yonder.’

(677) Ávyéjuube tsáá ihjyátu.
  áβ’hù:pë t’háː-’ î’há-t’hùù ‘The chief comes
  reign-(SgM) come-(t) self house-sou from his house.’

(678) Óómille ihjyátu.
  ó:mì-tʃè î’há-t’hùù ‘She returned from her house.’
  return-(SgF) self house-sou

The source need not be a physical location; there are metaphorical
extensions, as in 679:

(679) Óhdi(tyu) iyácnúúúbe.
  ó-’tí-(t’hùù) ḳ’hù:mù:-pë ‘He is depending on me.
  I-anim-sou depend-mSt-(SgM)

Further, 680 speaks of the source of knowledge:

(680) …íñe tá’nuubúmbua lljcyánúnetúrés ú waajácuú...
  …[í-pë  A t’há nù:pùmù-pà
  this-(Ø) my medicinal.plant-sg
  t’há:k’a-nù ú-né-t’hù-ré ú kpá:hák’hù-uú-’...
  yellow-become -(Ø)-sou-only you know-fut-(t)
  ‘...you will know from the yellowing of my medicine plant...’

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In 681 the source is human; note the use of the genitive construction headed by ʰˀLaʧɯ ‘top’:\(^\text{9}\)

(681) Áádí hallútú meke uhbáme.

\[
\text{[áːtí } ʰˀLaʧɯ́-tʰɯ́mɛ̀-kʰɛ̀ ɯ̀ˀpá-mɛ̀}
\]

he top -sou SAP-objAn rail-⟨AnPl⟩

‘They railed against us because of him.’

In 682 the source indicates the motive for laughing; this is presumably an extension of source as the initial point of a trajectory through space. (Note that -tʰɯ is implicit, as indicated by the small line following -tì.) The structure of 682 is given in 10.8.

(682) O chéméébedi góócóóbeke úhbaábe.

\[
\text{[NP[ [NP} ʰˀfʰɛ́mɛ́]-ːpɛ̀ ]-tì- kó:kʰó]-ːpɛ̀ ]-kʰɛ̀}
\]

I sick -⟨SgM⟩ -anim laugh -⟨SgM⟩ -objAn

úʾpá-ːpɛ̀

upbraid-⟨SgM⟩

‘He upbraided the one who laughed at me because/when I was sick.’

\(^\text{9}\)The example that follows is like 681 in using the genitive construction to explicate the relationship (here “reason”) but does not use -tʰɯ ‘source’:

Tééjá wáábyuta tsíbaábe.

\[
\text{[tʰɛ́ː-há } ʰˀkpá:pʰútʰa tʰîpá]-ːpɛ̀}
\]

‘He brought it for that-⟨shelter⟩ benefit bring-⟨SgM⟩ the house’s benefit.’

The second syllable of kpá:pʰútʰa has a lexically marked low tone so the preceding syllable does not have the expected genitive low tone.
10.4.3 Partitive

The suffix -tʰɯ̀ ‘source’ may mark a partitive noun phrase, i.e., one referring to a collection (or whole) from which a subset (or part) is identified. For example, in 683, -tʰɯ̀ ‘source’ follows anome ‘fish’, which indicates the collection from which one member should be taken:

(683) Ámómɛ̀-tí-tintoshá-ːpʰì-tí-βɯ́ ò-kʰɛ̀ t-àːkʰɯ̀
fish-anim-sou one-(SgM)-anim-thm I-objAn youImp-give
‘Give me one of the fish.’

(684) Tsáápidívú oke daacu dìtyédìtyu.
tsʰáː-pʰi-tí-βú ò-kʰɛ̀ t-àkʰɯ̀
one-(SgM)-anim-thm I-objAn youImp-give

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tìː-tʰɛ́-tí-tʰɯ̀
that-⟨AnPl⟩-anim-sou
‘Give me one of them.’

(685) Oke ájcuube tsáneevecu itýáavánetu.
ò-kʰɛ̀ áˣkʰɯ̀-ːpɛ̀ ʦʰá-nɛ̀ː-βɯ̀
I-objAngive-⟨SgM⟩ one-⟨ø⟩-thm self acquire.meat -⟨ø⟩-sou
‘He gave me a part of what he hunted.’

Examples 683–685 have explicit direct objects (in each case tˢʰ-a- ‘one’ followed by a classifier and -βɯ̀ ‘theme’). However a partitive phrase does not have to be accompanied by an explicit direct object, as shown by examples 686–688:

(686) ...u tsáccoca cúdsitu tsívaco...
ũ̀ ʦʰá-kʰòːkʰàkʰɯ́ʦɨ̀-tʰɯ̀
you come-when pineapple-sou bringImp-implore
‘...when you come, bring some pineapple...’

(687) ...dóuháyojé mááhojitu.
tóɯ̀ʔá-jò-hɛ́-ˀ máːʔó-hɨ̀-tʰɯ̀
break-sTr-do.come-⟨t⟩ cassava-⟨disk⟩-sou
‘...he went and broke off a piece of cassava.’

(688) Ehdúváa nééllere tsehdí íjcyujúwá llíjyutu.
[ɛ̀ˀ-tɯ́-β H a-S nɛː]-tʃɛ̀-ɾɛ̀
that-⟨like⟩-rpt-rem say -⟨SgF⟩-only
ʦʰɛ̀ˀtí-ʔìí ˣkʲʰ G űhɯ́kpáʧíhʲɯ̀-tʰɯ̀.
dig-⟨t⟩ self fire ashes-sou
‘Thus saying she dug up some ashes from her fireplace.’

10.4.4 About, concerning

A noun phrase bearing -tʰɯ ‘source’ may indicate the topic about which one is speaking, as in 689:

(689) Ehdúváa neebe dibye péénetu.
ɛʔ-túu-βā-a nɛː-pè ti-pʼè pʰɛː-nɛː-tʰɯ̀
that-⟨like⟩-rpt-rem say-⟨SgM⟩ that-⟨SgM⟩ go-⟨ø⟩-sou
‘That is what he said about his going.’

10 We do not know why tˢʰ-a-nɛː-βû in 685 has a long vowel.
Or it may indicate the topic of a thought or attitude, as in 690. (As discussed in section 10.4.1, -tʰu may be left implicit.)

(690) Óhdi(tyu) ɨ́dáatsóvelle.
ó-²tı(-⁴thù) ɨ́tátsʰó-βɛ̀-tʃɛ 'She has compassion for me.'
I-aním-soupity-sIn-(SgF)

10.4.5 Site of attachment

English treats something that is attached as directed to or against the site of attachment. For example, when we say *He tied the rope to the tree* or *The rope is tied to the tree*, we think of the rope as directed to (or toward) the tree. Even when we say *The horse is tied to the tree*, in our mind’s eye we see a rope running *from* the horse to the tree.

In Bora, the conceptual directionality of attachment is the other way around: something attached is generally conceptualized as being directed *away from* the site at which it is attached. For example, in 691 the word that indicates the site at which the rope is attached bears -tʰu ‘source’.

(691) Ócájikye dohjɨnubə úméheto.
ókʰáhì-kʲʰɛ̀tòˀhɨ́-nɯ̀-ːpɛ̀ɯ́mɛ́-ʔɛ̀-tʰɯ̀ 'He tied the cow to cow-objAntie-do-(SgM) tree-(tree)-sou (lit. from) the tree.'

(692) Aawáváa ìújúnue wájcatu pícyołle.
àː-kpá-β hə L a-ɪ S ìxkʰɯ́-nɛ̀ kpáˣkʰá-tʰɯ̀ pʰíkʲʰòː-ʧɛ̀ thm-(slab)-rpt-rem self get-(event) branch-sou put-(SgF) ‘Grabbing that hook she put it on (lit. from) a branch.’

(693) ...ɨ́hdééuúvutu ípiijyúwá dohjìnúne.
ɨ́-ɛ́-tʰ-ú-úβɪtʰ-ú ɪ pʰɨhʰú-ʊɨ-ʊ kʰ‘tʰ-hi-nú-nè earlier-per-(string)-max-sou self hook-(slab) tie-do-(ø) ‘...tied their hook onto (lit. from) a very old line.’

(694) ...íchihdyu dekéévé uke muhtsi mepájtyétsoki.
f-⁴thʰ-²thù t-ɛkʰɛ́-βɛ ì-kʰɛ̀ this-(place)-sou youImp-grab-sIn you-objAn
mʊ́r’tsʰí mɛ pʰáxhɛ́-ɛšʰɒ-ɛ-kʰì we.DuM SAP pass-cause-pur ‘...grab hold here (lit. from this place) so that we can pass you across.’

11See (Jackendoff 1991:112f).
(695) téénetu idyómaúcunúne
\[ tʰɛ́ː-nɛ̀-tʰɯ̀ \] i \[ tʰɛ́ː-nɛ̀-tʰɯ̀ \] ‘having been touching
that-(ø)-sou self touch-sSt-(ø)

(696) Ípiijyuvawáa dibye wááone díllé níiwácotu cápaavyéhi.
\[ í \ pʰː;iʰˈuː-kpà-βà-ːá \ ti-pˈè \ kpàːdʊ \]-nè
self hook-(slab)-rpt-rem that-(SgM) throw-(ø)
\[ [tɪː-ʧɛ́ \ @ níːkpā-kʰɔ \ ]-tʰɯ̀ kʰápʰà-ːβʲɛ́-ʔì \]
that-(SgF) head-(hair) -sou hook-slN-(t)
‘That hook of his that he threw hooked her hair (lit. from her hair).’

-tʰɯ̀ ‘source’ is used in combination with tɛ́hɯ̀ ‘behind’ to indicate motion toward something that is moving away, as in 697: 12

(697) Áju, májo dííts tíjúmu déjutu.
\[ áhɯ̀⁽ˀ⁾, máhò \[ tɨ́ː \ G ₫ ʦʰɪːhɯ́-m \ G ɨtɛ́hɯ́ \]-tʰɯ̀ \]
ready let’s go your mother-plAn behind-sou
‘…OK now, let’s go in pursuit of (lit. from behind) your parents.’
The use of -tʰɯ̀ ‘source’ in 697 contrasts with -βɯ̀ ‘goal’ to indicate motion toward a static location. Example 698 makes this clearer. In 698a the brother follows his sister, who is understood as moving away from him. 13
By contrast, in 698b the brother is moving toward the place where his sister is, that is, to a static location: 14

(698) a. Ínáálle déjutu peébe.
  b. Ínáálle éllevu peébe.
\[ í \ @ náː-ʧ \ G ɛ \] self sib-(SgF)
\[ a. tɛ́hɯ̀-tʰɯ̀ \] behind-sou
\[ b. ɛ́ʧɛ́-βɯ̀ \] place-goal
\[ pʰɛ̀-ːpɛ̀ \] go-(SgM)
  a. ‘He follows his sister.’
  b. ‘He goes to where his sister is.’
The conceptual direction of attachment can help us understand 699 (in which -tʰɯ̀ ‘source’ may be left implicit):

(699) ó-ǎ-ti-(tʰɯ̀) iʔkʰá-nè (Óhdí(tu) ijcyáne.) ‘I have it.’
I-anim-sou be-(ø)

12This can be understood in terms of the conceptual directionality of attachment, something like “going attached to a place behind the parents.”
13This does not imply that the brother intends to catch up to her, although that might be the case.
14It is interesting to compare these with example 1078, page 423.

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Given the conceptual direction of attachment, 699 indicates that I am the site at which the subject (the referent of -ne ⟨ø⟩) is located (“attached”). And this is what it means to “have”: for the owner to exert ownership “against” something.

At first blush, the instances of -tʰù in 700 seem to indicate location:

(700) a. ¿Mútsihdyú Lli uke diǐbye?
   b. Íchihdyu tábooráyutu
      a. mú’tsʰi-ˀtʰù tʃì⁽ˀ⁾ ù-kʰè tiːpʰè
      which-⟨place⟩-sou father you-objAn that-⟨SgM⟩
      ‘Where on you, Father, is it?’

b. í-tʃʰi-ˀtʰù tʰá poːrágū-tʰù
   this-⟨place⟩-sou A my heel-sou
   ‘Here on my heel.’

However, given that 700 refers to an insect that burrows into the skin, it seems quite clear that -tʰù is used to indicate the site at which the insect has attached itself.

### 10.4.6 Time after

-tʰu ‘source’ may follow a phrase that refers to time in order to indicate some subsequent time. In 701 it follows a simple noun phrase:

(701) Aabéváa cúuvénetúre iájkyéne mɨićúmiri ŋt̪émeihi....
   àː-ð-̱b-a kʰúː-β-e-ˀtʰ̀ú-ré ɨ ḁkʰ̱-e-nè
   thm-⟨SgM⟩-rpt-rem dark-⟨time⟩-sou-only self awake-⟨ø⟩
   mîkʰúmi-ri í:tʰ̬-e-mèf-ʔi
   mirror-oblIn look-tp-(t)
   ‘Early in the morning, having awakened, he looked at himself in the mirror....’

In 702 it follows a subordinate clause:

(702) Aanéváa áiivénetu teene dóóto neebó “tóó”.
   à:né-ˀb-a əi-ːβ-e-ˀnè-ˀtʰ̀ú tʰè:-nè
   thm-⟨ø⟩-rpt-rem burn-oblIn-⟨event⟩-sou that-⟨ø⟩
   A tóːtʰ-ð-ú nèːpó-ʔ “tʰóː”
   squash-⟨sphere⟩ pop.open-(t) “bang”
   ‘After it heated up, that squash popped open with a bang.’
10.4.7 Contrast

-ʰɯ ‘source’ may mark the noun phrase indicating something with which another is contrasted. With àː-nɛ̀ (theme-⟨ø⟩) it forms a sentence-initial link indicating contrast, as at the beginning of 703b, where clothes such as socks and underwear are contrasted with single-piece clothing like dresses. (The other three instances of -ʰɯ can be understood in terms of the conceptual direction of attachment: “hang from hangers,” “hang from a clothes line,” “from where we attach the clothes pins.”)

(703) a. Paja nééja páihcyútú mépicyóóhi.

b. Áánetu tsíhdýure ɨvájahjį mépicyóóhi; móóhótu méíhđotsó úméhewáánetu.

a. phá-ʰà nɛ́ː-hà pʰá-ʔhʰʊ-ʰʊ mé pʰikʰóː-si-ʔì all-⟨clothes⟩ say-⟨clothes⟩ all-⟨frame⟩-sou SAP put-⟨t⟩

b. áːnɛ̀-tʰɯ tsi-ʔtú-rè íβà-há-ʔhí thm-⟨ø⟩-sou other-⟨like⟩-only different-⟨clothes⟩-pl

mé pʰikʰóː-ʔi móːʔ-ʰʊ SAP put-⟨t⟩ vine-⟨vine⟩-sou

[ʔtò-tsʰóʔ-² úmɛ-ʔkpa-ːnɛ-ʔ]-tʰɯ SAP bite-cause-⟨t⟩ tree-⟨tree⟩-⟨slab⟩-plIn-sou

a. ‘We put all the one-piece clothes onto hangers.’

b. ‘By contrast, the other kinds of clothes we hang on the clothes line, pinning them on with clothes pins.’

10.5 -ɾi ‘inanimate obliques’

-ɾi (-ɾi) is used to mark various inanimate obliques; it is only used on inanimate noun phrases and nominalized clauses. -ɾi is often used to mark instruments (10.5.1). Other uses include: cause (10.5.2), location (10.5.3), medium (10.5.4), and topic of conversation (10.5.5).

10.5.1 Instrument

-ɾi ~ -ji ‘inanimate obliques’ is used to mark an instrument, i.e., an object with which an action is performed. For example, in 704 the instrument is níːtsʰúkpa ‘machete’. (See also 781, page 311.)
10.5. -RI ‘INANIMATE OBLIQUES’

10.5.2 Cause or reason

-ri ‘inanimate obliques’ can mark a noun phrase or nominalized clause as the cause or reason for the event indicated by the main clause. Examples follow:

(708) Tééneri chémeébe.

\[ tʰɛː-nɛː-ɾɪ \quad tʰɛːmɛː-ːpɛ \]

‘That was the cause of his being sick.’

(709) Taabóóbej tééveri tsúúca bohɨ́ júcoóbe.

\[ tʰàːpó-ːpɛˣ \quad tʰɛːβɛː-ɾɪ \quad tʰúːkʰàpòʔɨ \quad hɯ́kʰò-ːpɛ \]

‘By the influence of the doctor, he is now better.’

(710) Mítyane imájchóneri chémeébe.

\[ mítʲʰà-nɛːmɛ̀ \quad máˣʧʰó-ːpɛ \quad tʰɛːmɛː-ːpɛ \]

‘He got sick by eating a lot.’ (or ‘...because he ate a lot.’)

(711) Íñáallekéváa iéévatsóneri iñúcójpîvéne péjúcoóbe.

\[ í \quad G \quad nàː-ʧɛː-kʰɛː-βà-ː \]

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1. ɛ:βá-tsʰó-nè-ɾí
    self pregnant-cause-(event)-oblIn

2. ɛ:βá-tsʰó-nè-ɾí
    self pregnant-cause-(event)-oblIn

‘He is going now because he is ashamed of having caused his sister to be pregnant.’

10.5.3 Location

-ɾi ‘inanimate obliques’ can mark a noun phrase or nominalized clause as the location of the event indicated by the main clause, as in 712, 713, and 783, page 312.

(712) Juuváyiváa ávyéjuube méénikye iájtyúmɨ́ ɨ́ beke añúhi.
    hǔ:rɑ:ži-βɑ-ɑ  áβʲɛ́hɯ-ːpɛ̀ mɛ́ːnì-kʰɛ̀
    trail-oblIn-rpt-rem reign-(SgM) peccary-objAn

A [i əxʰǔmɨ́]-ːpɛ̀-kʰɛ̀ àɲɯ́-ʔì
    self see - (SgM)-objAn shoot-(t)
‘The chief, seeing a peccary on the trail, shot it.’

(713) Tééjari diíbye.
    tʰɛ́ː-hà-ɾí ti-ːpʲɛ̀ ‘He is in that
    that-(shelter)-oblIn that-(SgM) shelter (house).’

-ɾi ‘inanimate obliques’ is frequently used with genitive constructions headed by a locative noun like ɨ̃uniu, as in example 714:

(714) Táúníuri diíbye.
    tʰá ɨ̃uniu-ɾí ti-ːpʲɛ̀ ‘He is at my side.’
    my side-oblIn that-(SgM)

See also tʰɛːʔi ɨ̃uniu-ɾí ‘alongside the river’ in 361, page 176, as well as 956, page 361.

Compare 715 and 716. In 715 the location of a static event is indicated with -ɾi. In 716 (and 658, page 276) the goal of a dynamic event is indicated with -βɯ (-vu) ‘goal’:

15 Example 712 is presented as having iá’xʰǔmɨ́pɛ̀kʰɛ̀ ‘the one that he saw’ in apposition to mɛ́ːnì-kʰɛ̀ ‘peccary’. An alternative is to take mɛ́ːnì-kʰɛ̀ as the direct object of a’xʰǔmɨ́ ‘see’ in the relative clause.
(715) Táñaalle ácúúcunú ácúúveíhcyú hallúri.
\[ tʰá \enspace ⟨\h\text{na}:\text{-}\text{tj}⟩ \enspace ákʰùː-úkʰùmûː{-}  \]
my \enspace sib-⟨SgF⟩ \enspace sit-sSt-⟨t⟩
\[ [\acute{\text{ákʰùː-}βɛ̂ː-} \text{i}ˈkʰù \acute{\text{ʔafjúː}] -\text{-}ri] \]
sit-sln-⟨frame⟩ \enspace top \enspace -oblIn
‘My sister is sitting on top of the chair.’

(716) Táñaalle ácujcáró ɨjtsiːmèneke ácúúveíhcyú hallúvu.
\[ tʰá \enspace ⟨\h\text{na}:\text{-}\text{tj}⟩ \enspace ákʰùː-ˈkʰáró\text{-}ções  \]
my \enspace sib-⟨SgF⟩ \enspace sit-sln-⟨t⟩ \enspace self \enspace child-objAn
\[ [\acute{\text{ákʰùː-}βɛ̂ː-} \text{i}ˈkʰáɾó \text{-}ɪˈ \text{i}ˈkʲʰùː \text{ɣ} \enspace L \text{aʧɯ́}\text{-}ɾì] \]
sit-sln-⟨frame⟩ \enspace top \enspace -goal
‘My sister sat her child down on top of the chair.’

-ri is not used following a locational phrase headed by \textit{pʰ\text{h}ɛ} ‘inside’; for example, 717a is correct but 717b is ungrammatical:

(717) Táñaalle ácuúcunú ihjyá pañe\\{a. \text{Ø} \enspace b. \text{-ri}\}.
\[ tʰá \enspace ⟨\h\text{na}:\text{-}\text{tj}⟩ \enspace ákʰùː-úkʰùmûː{-}  \]
my \enspace sib-⟨SgF⟩ \enspace sit-sSt-⟨t⟩
\[ [\acute{\text{i}}ˈ \text{há}] \enspace ⟨\text{pʰ\text{a}nɛ}⟩ \text{ɣ} \enspace \{a. \text{Ø} \enspace b. \text{-}ri\} \]
self house \enspace inside
‘My sister is sitting in her house.’

10.5.4 Medium

A noun phrase marked with -ri ‘inanimate oblique’ may refer to that along which something moves or to a medium of conveyance. See the following examples:

\[ tʰá \enspace ⟨\h\text{na}:\text{-}\text{tj}⟩ \enspace \text{pʰ\text{ɛ}}:{-} \text{[}\acute{\text{i}}ˈ \text{há}] \enspace ⟨\text{pʰ\text{a}nɛ}⟩ \text{-}βùu \text{ (Táñaalle péé ihjyá pañe\text{v}u.)} \]
my \enspace sib-⟨SgF⟩ \enspace go-⟨t⟩ \enspace self house \enspace inside \enspace -goal
‘My sister goes into her house.’
10.5.5 Topic of conversation

-ři ‘inanimate obliques’ may be used on a noun phrase that indicates the topic of conversation:

(721) Tééneri ihjyúváábe.
\[tʰɛː-nɛ̀-ři \ i’húβàː-pɛ̀ \ ‘He talked about that.’\]
that-(ø)-oblIn talk-(SgM)

(722) Árónáacáváa diibye Píívyéébe hájkímú tééneri ihjyúváábehi.
\[á-ɾó-náàkʰá-β \ H \ a-L \ a \ tì-ːpʲɛ̀ \ A \ pʰíβɛ́-ːp \ G \ ɛ \ tʰɛː-nɛ̀-ři \ i’húβàː-pɛ̀ \ ‘However, the Creator’s relatives were talking about it.’\]
that-(ø)-oblIn talk-sub be-(t)

10.6 -ma ‘with’

-mà (-ma) ‘with’ is used for co-subjects (10.6.1), circumstances (10.6.2), instruments (10.6.3), and benefits (10.6.4).

10.6.1 Co-subject

-ma ‘with’ is used to mark a co-subject, that is, a noun phrase indicating a person, animal or thing that accompanies the referent of the subject (in the event indicated by the verb). Examples follow:
10.6. -MA ‘WITH’ 295

(723) Tsaaívída péé méwáníhyoma bajú pañévu.
    tsʰà-pʰí-βá-ά pʰé-ʔí měkpá-níʔi̞-ò-mà
    one-⟨SgM⟩-rpt-rem go-⟨t⟩ wife-⟨mother⟩-with
    g
    páhú pʰáné-βù
    jungle inside-goal
    ‘A man went with his wife into the jungle.’

(724) a. Tānáhbema o péehi.
    b. Tānáhbema muhtsi mepééhi.

    thá G náʔ-pè-mà
    my sib-⟨SgM⟩-with
    { a. ò
    { b. mùʔtsʰí mè
    we.DuM SAP
    go-⟨t⟩

    a. ‘I go with my brother.’
    b. ‘With my brother, he and I go.’

There are two instances of -ma ‘with’ in 725. The first (in the subordinate clause) marks the co-subject of ‘work’; the second (in the main clause) marks the co-subject of ‘go’.17

(725) Díibyema wákímeíbyema pějúcoóbe.
    [tí-pʰé-j-mà kpákʰímɛí- ]:pʰé-k-mà pʰé-húkʰò-pè
    that-⟨SgM⟩-with work- -⟨SgM⟩-with go-now-⟨SgM⟩
    ‘He went with the one who works with him.’

In 726 tˢʰínxᵉ iːɲúhitʰù tˢʰá:pêmà ‘with the one (SgM) who came from another country’ is in apposition to tˢʰípʰimà ‘with the other (SgM)’.

(726) Tsíjpima tsíínê iːɲúju³tsáábema ʰjyúvaabe.
    tˢʰípʰi-mà A [tˢʰí-ːɲé iːɲú-hí-tʰù tˢʰá ]-pè-mà
    other-with other-⟨Ø⟩ dirt-⟨disk⟩-sou come -⟨SgM⟩-with
    fʰúβà-pè ‘He is talking with the one
    talk-⟨SgM⟩ who came from another country.’

17 Compare 725 with the following, in which I ‘self’ is the subject of the subordinate clause:
    Díibyema iwákímeíbyema pějúcoóbe.
    [tí-pʰé-k-mà i kpákʰímɛí- ]:pʰé-k-mà pʰé-húkʰò-pè
    that-⟨SgM⟩-with self work- -⟨SgM⟩-with go-now-⟨SgM⟩
    ‘He i went with the one he works with ø.’
10.6.2 Circumstance

A subordinate clause bearing -ma ‘with’ may mark a phrase indicating a circumstance. In 727 it follows a subordinate clause and is interpreted temporally:

(727) Aane imájchónema péjúcoóbe.
àː-nɛ̀ [i má’tʃʰó ]-nɛ̀-mà pʰɛ́-hɯ́kʰò-ːpɛ thm-⟨θ⟩ -with go-now-⟨SgM⟩
‘Then, after eating, he went.’

See also example 662, page 277.

10.6.3 Instrument

Instruments are normally marked by -ɾi ‘inanimate obliques’. However there are some cases where -mà ‘with’ seems to indicate an instrument.

In the following three examples, the sentence-initial connective of the secondsentence bears -mà ‘with’, and the connective seems to refer to an object in the context, one that is used as an instrument in the sentence that the connective initiates. (The object referred to is virtually always mentioned explicitly in the preceding sentence.) In the second sentence of 728 it appears to refer to the aforementioned gun.

(728) ðícúiváa ávyéjuube ujcu íañúju. Áánemáváa oohíbyeke ánuube cuwájá pañétu.
ɨːkʰɯ́ì-β H a- La áβʲɛ́hɯ̀-ːpɛ̀ ɯ̀ˣkʰɯ́-ˀí N aɲɯ́-hɯ́ quickly-rpt-rem reign-⟨SgM⟩ get-⟨t⟩ self shoot-⟨gun⟩
áː-nɛ̀-má-βa-Ł ðːʔiː-ːpʲɛ̀-kʰɛ̀ áɲuː-ːpɛ` thm-⟨θ⟩ -with-rpt-rem jaguar-⟨SgM⟩ -objAn shoot-⟨SgM⟩
kʰ́ukuŋá-há ɡ pʰɑŋɛ́-tʰù sleep-⟨net⟩ inside-sou
‘Quickly the chief got his gun. Then with it he shot the jaguar from inside the sleeping net.’

In the second sentence of 729 it appears to refer to the aforementioned skins:
The suffix -ma(-ma) may be used on a noun phrase that indicates the beneficiary of the event indicated by the clause, as in 731 and 732. (These should be compared with similar cases in section 10.7.1.)

(731) Táwajyámú óóma dsɨ́ jcolle.
\[^\text{thá} \text{kpah}^\text{g} \text{ámú} \text{ú}-\text{má} \text{tsf}^\text{h} \text{ò}-\text{tjé} \] ‘She sewed my clothes I-with sew-⟨SgF⟩ my clothes for me.’

(732) Téhdure úúma diwajyámú ó tsiváhi.
\[^\text{tjé}^\text{-tjú} \text{rjé} \text{ú}-\text{má} \text{tí} \text{kpah}^\text{g} \text{ámú} \text{ó} \text{tsf}^\text{h} \text{βá}-\text{ñí} \] that-⟨like⟩-only you-with your cloth I bring-⟨t⟩ ‘I also brought your cloth for you.’

Despite appearances, the connectives in 728–730 may simply indicate circumstance, with -ma used as in the previous section (10.6.2).
10.7 -hliíhye ~ -llii ‘motive’

The suffix -(ˀʧiːʔʲɛ)(-hliíhye) ‘motive’ is used in two ways: to indicate a beneficiary (10.7.1; cf. section 10.6.4) and to indicate a reason or motive (10.7.2). As to form, -(ˀʧiːʔʲɛ) is used at the end of a sentence and the shorter form -(ˀʧii) is used sentence medially.

10.7.1 Beneficiary

The suffix (ˀʧiːʔʲɛ)(-lliihye) indicates that its host’s referent is the person benefited by the event indicated by the clause. Examples follow:

(733) Óhliíhye teene méénuúbë.
    ˀʧiː tʰɛ̀ː-nɛ̀ mɛ́ːnɯ́-ːpɛ̀ ‘He made it for me.’
    I-motive that-(SgM) make-(SgM)

(734) Teene ó meenú táiiñújɨ múnáálliíhye.
    tʰɛ̀ː-nɛ̀ ómɛ̀ːnɯ́-ˀ tʰá 绿色通道 G ɨ-ɲɯ́-h G ɨ mɯ́náː-ʧiːʔʲɛ̀ that-(SgM) I make-(t) my dirt-(disk) people -motive
    ‘I made that for the people of my country.’

10.7.2 Reason

When a clause subordinated with -nc ⟨event⟩ is followed by -(ˀʧiːʔʲɛ)(-lliihye) ‘motive’, it is interpreted as the reason or motive for the event of the main clause. For example, the reason for not going indicated in 735 is that I am sick:

(735) Tsá o pééityú o chéménélíihye.
    ʦʰ hliíhye ˀʧiː-i-tʰú [ˀʧiːʔʲɛ̀] tʰɛ̀ː-nɛ̀-ʧiːʔʲɛ̀ not I go-fut-neg I be.ill -(event)-motive
    ‘I will not go because I am sick.’

Other examples follow. See also example 668, page 280.

(736) Pááa májchoobe iájyábáávaténélliíhye
    pʰáː à máʧʰeː-ːpɛ̀ [ːpɛ̀] ˀʧiːʔʲɛ̀ bread eat-(SgM) self hunger-become-go.do-(event)-motive
    ‘He ate the bread because he became hungry.’
10.8 -HDU ‘COMPARATIVE’

As to form, -L̃̃(̃v)tu ( HDC ) ‘comparative (like)’ occurs after monosyllabic roots and -L̃̃(̃v)tu ( HD ) occurs elsewhere.

-L̃̃(v)tu is different from the other case markers in that sometimes it behaves like a classifier (glossed as ‘ like ’) and sometimes like a case marker (glossed ‘like’). As a case marker it indicates similarity to its host’s referent, as a classifier it refers to the nature or characteristics of its host’s referent or, particularly when it heads a relative clause, to the manner of an event. -L̃̃tu can occur as a case marker following a pronoun or a name, where a classifier cannot occur. For example, a classifier may not occur after o ‘ I ’, but -̃tu ‘ like ’ may do so, as in 740:

(740) ó-̃tu nɛː-pɛ O hdu neébe. ‘He is like me.’

I-like say-( SgM )

Likewise a classifier may not follow pʰáːβòːrò ‘ Paul ’, but ̃tu may, as in example 741:

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a. hóáà pʰáːβòɾó-tɯ̀ (Jóáa Páávoródu.)
John Paul-like
b. pʰáːβòɾó-tɯ̀ hóáà:18 (Páávoródu Jóáaá.)
Paul-like John-emph
a,b. ‘John is like Paul.’

(742) a. Táñahbédú diíbye.
b. Táñahbe dííbyedu.

a. tʰá (G)nᵃ-tʰú òí-tʰ́ɛ̀ 'He is like
my (SgM)-like that-(SgM) my brother.'
b. tʰá (G)nᵃ-pè òí-tʰ́ɛ̀-tɯ̀ 'My brother
my (SgM) that-(SgM)-like is like him.'

(743) Tsá dííbyedu o néétune.

ʦʰ H aˀʦʰì-ˣtʲʰɛ̀ [tì-pʲɛ̀ mɛːnɯ̀]-tɯ̀ mɛːnɯ̀-tʰɯ́-nɛ̀ 'I am not like him.’ (lit. ‘I do not say like him.’)

-tsʰ tu ‘comparative’ may also be used to compare two actions. For example, 744 compares “how the others do it” to how “he does it.” In this case -tu is a classifier and heads the relative clause that is the direct object of the main clause. (More is said about such cases below.)

(744) Tsá tsijtye díbyedu méénudu méénutúne.

ʦʰ H aˀʦʰì-ˣtʲʰɛ̀ [tì-pʲɛ̀ mɛːnɯ̀]-tɯ̀ mɛːnɯ̀-tʰɯ́-nɛ̀ 'The others do not do like he does.’

In 745 -ʦʰ tu heads a postpositional phrase (tì-pʲɛ̀-tɯ̀) that complements ᵐⁱʳ.kʰə ‘be’; the predicate-complement sentence is the object complement of ᵈᵢᵐᵲ ‘want’:

(745) Ó imillé díbyedu o íjcyane.

ó ᵈᵢᵐᵲ [tì-pʲɛ̀-tɯ̀ ᵐⁱʳ.kʰə]-nɛ̀ ‘I want to be
I want-(t) that-(SgM)-like I be -⟨ϕ⟩ like him.’

In 746 -ʦʰ tu heads a postpositional phrase that is a predicate complement within a relative clause:

(746) Ó imillé tsawa úméhewa íwahdu nééwaá.

ó ᵈᵢᵐᵲ [ʦʰ-ktʰà ˬ úₕ蜊]-ktʰà I want-(t) one-(slab) tree-(tree)-(slab)

18The final low vowel has undergone FLTS.

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(747) O íjcyadu tsá dibye íjcyatúne.

Let us now return to cases where -túu behaves like a classifier. There are various reasons for considering it to be a classifier. First, it can be followed by a case marker. (We know of no other case where a case marker is followed by another case marker.) For example, in 748 -túu ⟨like⟩ is followed by -tʰɯu ‘source’:

(748) ¡Múhdtúráami ó péétsáméiíj!

Second, (ʔ)tuu ⟨like⟩ frequently follows bound pronominal roots, which must be followed by a classifier. These are tʰe- ‘that’, a- ‘thematic’, e- ‘that’, mu- ‘who, which’, and pʰa- ‘all’.

Third, (ʔ)tuu ⟨like⟩ can head a relative clause, as in 744 and 747 above and in 749:

(749) Áronéváa ipyéhdú pehíjcyáhi.

Fourth, a classifier never follows a case marker but, as we have seen many times, a classifier may follow another classifier. -kpa ⟨slab⟩ is unquestionably a classifier, but in example 750 it follows -túu, showing that in this case it is a classifier.19

(750) éhduwáre

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19 The structure of 750 is as follows, where both -túu and -kpa head phrases:
10.9 Vocative

The vocative differs from other case markers in that it does not indicate the grammatical relation of a noun phrase to a verb. Rather, a vocative indicates speech directed toward an interlocutor. The Bora vocative may occur on a noun phrase (such as a name, a kinship term, or a nominalized clause).

When a phrase (usually a name) is used to address a particular person (or persons) it bears -ˣ (⁻j) ‘vocative’. Examples follow: ²⁰

(751) Llihíyoj, ¡dúcaáve!
  ṭjìʔjì-ˣ, t-ùkʰà-ːβɛ
father-voc you Imp-enter-sIn
‘Father, come in!’

(752) Ámuúha táñahbémuj, méucááve.
  ámù:?à thá ᵇ ᶓʔ-mù-ˣ , mé ùkʰá-ːβɛ
you.pl my sib-(SgM)-pl An-voc SAP enter-sIn
‘You, my brothers, enter!’

(753) Ámúhakye o wájyumej, méucááve.
  ámú:?à-kʰë ᵥ kpáh'ù-mè-ˣ , mé ùkʰá-ːβɛ
you.pl-obj AnI esteem-(AnPl)-voc SAP enter-sIn
‘Esteemed ones, enter!’

(754) Méucááve, táwajyújtej.
  mé ùkʰá-ːβɛ , thá kpáh'ù-ᵗʰë-ˣ
SAP enter-sIn my esteem-(AnPl)-voc
‘Enter, my esteemed ones!’

When a vocative phrase involves the reduplication of a word or phrase, the first of the reduplicated parts is shortened and does not bear -ˣ ‘vocative’:

²⁰The comma indicates a break/pause.
(755) Péédo, Péédoroj, ¡dichájuj!
\[ pʰɛ́ːtò \textit{Peter-voc } pʰɛ́ːtòɾò-ˣ \textit{you Imp-come-quick-voc} \]
‘Peter, Peter, come quickly!’

Some conventional vocatives are listed in 756:

(756) a. \(nàˣ \) (\(nàj\)) ‘sibling’
   b. \(nɛ́ˀnìˣ \) (\(néhnij\)) ‘ugly (one)’
   c. \(kʰɛ́mɛ̀ˣ \) (\(kémej\)) ‘old one’
   d. \(\left\{ \begin{array}{l}
   ʧìʔíjòˣ \textit{(llihíyoj)} \\
   ʧìʔíɯ̀ˣ \textit{(llihúj)} \\
   ʧíʔìˣ \textit{(llíhij)}
   \end{array} \right\} \) ‘father, son’

Proper names are also frequently shortened. For example, whereas 757a
would be used to refer to someone named Mary, 757b is how one would
call someone so named:

(757) a. \(máɾímɯ̀ʧɛ̀ \) (\(Márímulle\))
   b. \(májìˣ \) (\(Máyij\))

\(-ˣ\) ‘vocative’ may occur at the end of reported speech that was directed
to an interlocutor. In this use it often follows a verb, as in 758 and 759.
(See also examples 755 above and 667, page 280.)

(758) Aanéváa neébe: “Llíhij, májo memájchokij”.
\[ àː-nɛ́-β \textit{Lhāa-nɛ̀-ːpɛ̀ ʧíʔì-ˣ} , \]
\[ \textit{thm-}⟨\textit{Ø}⟩\textit{-rpt-rem say-}⟨\textit{SgM}⟩\textit{son-voc} \]
\[ máhò mè \textit{SAP eat-pur-voc} \]
‘Then he said, “Son let’s eat”.’

(759) Óβñì , ò \(tʃɛːnɛ-ˣ \) (\(Óvñì, o lléénej\).) ‘Wait, I’ll eat it.’
\[ \textit{wait I eat-voc} \]
This use of \(⁻ˣ\) is also found in self-directed quotes, that is thoughts repre-
sented as direct quotes, as in 748 above.
Enclitics (which we generally refer to simply as “clitics”) have syntactic or semantic “scope” over an entire phrase. They attach themselves phonologically to the last word of a phrase. Bora uses the following types of clitics (among others, e.g., the personal pronominal subject proclitics of table 10.1, page 270):

1. **SECOND POSITION** clitics occur only following a clause’s first constituent; these include:
   (a) TEMPORAL, i.e., ones that indicate tense (the time of an event relative to the time of speaking) are -pʰɛ ~ -⁽ʰ⁾r ‘remote past’, -⁽ʰ⁾rɛ ‘recent past’, and -líkʰɛ (~ -l ‘future’. These are discussed in section 5.9.3. They are also included in figure 11.1; note that they do not all occupy the same position relative to the other clitics.
   (b) EVIDENTIAL, i.e., ones that indicate how the speaker came to know what she or he is reporting; see section 11.1.
   (c) The verb ‘to be’ iˣkʰa has become a second-position clitic in a type of predicate complement structure; see section 5.10.2.

2. **ADVERBIAL** clitics follow various classes of sentence constituent; see section 11.2.

3. A **NEGATIVE** clitic is discussed in section 13.3, page 13.3.

The clitics occur in the order given in table 11.1:

---

1 We do **NOT** intend a strong claim that the morphemes discussed here are strictly *clitics* as opposed to *suffixes*. Examples like 790, in which -rò ‘frs’ precedes -pɛ -(SgM), suggest that -rò is a suffix rather than a clitic.
Table 11.1 The order of clitics

<table>
<thead>
<tr>
<th>ONLY MODAL FUT&lt;sup&gt;a&lt;/sup&gt;</th>
<th>FRS&lt;sup&gt;b&lt;/sup&gt;</th>
<th>PROB&lt;sup&gt;c&lt;/sup&gt;</th>
<th>REALIZE</th>
<th>REP&lt;sup&gt;d&lt;/sup&gt;</th>
<th>NWIT&lt;sup&gt;e&lt;/sup&gt;</th>
<th>TENSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ɾɛ</td>
<td>-huk&lt;sub&gt;bo&lt;/sub&gt;</td>
<td>-i(ík&lt;sub&gt;h&lt;/sub&gt;ɛ)</td>
<td>-ro</td>
<td>-upa</td>
<td>-ʔa(ák&lt;sub&gt;a&lt;/sub&gt;a)</td>
<td>-βa</td>
</tr>
<tr>
<td></td>
<td>-hître(βa)</td>
<td>-ʔi&lt;sub&gt;ahr&lt;/sub&gt;a</td>
<td></td>
<td></td>
<td>-k&lt;sub&gt;a&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-ʔtɛ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>future  
<sup>b</sup>frustrative, contraexpectation  
<sup>c</sup>probable  
<sup>d</sup>reportative  
<sup>e</sup>nonwitnessed

The clitics combine quite freely, but some combinations are semantically incompatible. It is not infrequent to find four clitics on a single word, e.g.:

(760) Ááneréjucóhjáa
áː-nɛ̀-ɾɛ́-hɯ̀kʰó-ˀhá-à ‘After that only now’
that-(ø)-only-now-nwit-rem

11.1 Evidential clitics

The evidential clitics are -ʔha ‘nonwitnessed’ and -βa ‘reportative’.

There is no clitic indicating direct, first hand information, but the absence of an evidential clitic (in a declarative sentence) implies first hand information. If a speaker fails to include an evidential clitic when reporting an event he or she did not witness, they may be challenged by the hearer.

11.1.1 -hja ‘nonwitnessed’

The evidential -ʔha (-hja) ‘nonwitnessed’ indicates that the speaker did not see, hear, smell, or have tactile experience regarding what she or he is saying. It always co-occurs with either -pʰɛ ~ -⁽ˀ⁾nɛ ‘remote past’ or -⁽ˀ⁾ne ‘recent past’. The effect of -ʔha ‘nonwitnessed’ in 761 is to indicate that, although we saw what you made, we did not see you make it:

(761) Muha muurrá máájtyumjucóó éhnéhjáa u méénune.
му̀ʔà мʊռrà má áx<sub>hr</sub>úmí-hɯ̀kʰō:ʔ-ʔ  
we confirm SAP see-now-(t)

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11.1. EVIDENTIAL CLITICS

[ɛ₂-nɛ̀-ʰá-á ɯ́ mɛː:nù]-nè that⟨(o)⟩-nwit-rem you make -⟨(o)⟩ ‘We (ex.) have already seen what you made.’

Other examples follow:

(762) Oohííbyéhjá {⁻pe⁻a} úmiváhi.

{oːʔíːpʲɛ́-ʰá

dog-⟨(SgM)⟩-nwit -pʰɛ̀-rem úmìβá-ʔì (I did not see it.)

úmiváhi.}

The dog escaped some time ago.’

(763) Oohííbyéhjáne úmiváhi.

{oːʔíːpʲɛ́-ʰá-nè úmìβá-ʔì ‘The dog escaped recently.’

dog-⟨(SgM)⟩-nwit-rec escaped-⟨(t)⟩ (I did not see it.)

Example 764 implies that the speaker saw the burned house, but the effect of adding -ʰa (-hja) ‘nonwitnessed’ is to indicate that he did not see it while it was burning, only some considerable time after it burned:

(764) Ó ájtyumɨ́ tsajáhjáa jaa aívéyeja.

ó á⁴ᵗʰùmí.² tsʰà-há-ʰá-á

I see-⟨(t)⟩ that-⟨(shelter)⟩-nwit-rem

[хаː áf⁻bʲɛ̀² ]-hà shelter burn-sln -(shelter)

‘I saw a house that had burned (but I did not see it happen).’

11.1.2 -βa ‘reportative’

-βa (-va) ‘reportative’ indicates that the speaker is reporting something said by another person. It is used both like a reportative evidential and as a marker of indirect quotation. It is used in folktales and legends. -βa may follow the first constituent of either a main clause, as in 765, or a subordinate clause as in 766b:

(765) Diibyévá peé úúmaá.

ti̕:pʲɛ̕-βá pʰɛ̀-ɛ́-² úː-ːmà: ‘Someone says that he that-⟨(SgM)⟩-rpt go-fut-⟨(t)⟩ you-with will go with you.’

²Note the nonfinite tone in 764; if it were high tone this would be a relative clause, implying that the house was seen at the time it was burning. This is not acceptable because it would contradict the implication of the nonwitnessed suffix.
(766) a. Áánerá táñáálleke neebe ipyééityúne.
   b. Áánerá táñáálleke neebe iiva ipyééityúne
át-ːɲɛ̀-ɾá tʰá ʃə-ːpɛ̀-kʰɛ̀ nɛ̀ːpɛ̀
that-⟨event⟩-frs my sib-⟨SgF⟩-objAn say-⟨SgM⟩

\[
\begin{align*}
   & a. \text{i } pʰɛ́ː-i-tʰǔ-ːpɛ̀ \quad \text{self go-fut-neg-⟨n⟩} \\
   & b. \text{i-ːɾa } pʰɛ́ː-i-tʰǔ-ːpɛ̀ \quad \text{self-rpt self go-fut-neg-⟨n⟩}
\end{align*}
\]

‘On the contrary, he, told my sister that (someone said) he, would not go.’

Example 766a (without the reportative) means simply that he told my sister that he was not going. By contrast, 766b—with the reportative in the subordinate clause—means that he told his sister that someone reported that he was not going.

(767) Oke táñahbe úúballe ávyéjuubéváa íiiñújɨvu pééneé.

\[
\begin{align*}
   & \text{o-kʰɛ̀ tʰá ʃə-ːpɛ̀-kʰɛ̀ uːpɛ́ː-ːpɛ̀ [-addon]-pɛ̀-βa-a} \\
   & \text{I-objAn my sib-⟨SgM⟩ tell-⟨t⟩ reign-⟨SgM⟩-rpt-rem}
\end{align*}
\]

‘My brother told me that the chief went to his country …so my brother was told.’

(768) a. Tsá ova o pééityúne.
   b. Tsáhava o pééityúne.

\[
\begin{align*}
   & a. tsʰ-a-ː ʃə-βa \quad \text{not I-rpt} \\
   & b. tsʰ-aophobic ʃə-βa \quad \text{not-rpt}
\end{align*}
\]

\[
\begin{align*}
   & \text{d uːnú-hi-βu } pʰɛ́ː ]-ːpɛ̀ \quad \text{self dirt-⟨disk⟩-goal go -⟨ø⟩} \\
   & \text{I go-fut-neg-⟨n⟩} \quad \text{I am not going.’}
\end{align*}
\]

Compare the sentences in 769: 769a is a direct quote, 769b is an indirect quote, and 769c reports the content of what someone else said. Examples 769a and b would be used by the person to whom “he” said “Tomorrow I am going...”. By contrast, 769c would be used if this information had been passed through a number of speakers.

(769) a. Oke neébe, “Péjcoré o peé táiiñújívuvu”.
   b. Oke nnebe péjcoré íiñújívuvu ipyééiñe.
   c. Péjcoréva pééiibye íiñújívuvu.
11.1. EVIDENTIAL CLITICS

11.1.1. Evidential Clitics

a. ò-kʰè nè:-pè ,³ “pʰɛ́ʾkʰərɛ̀ ọ pʰɛ́-ɛ́⁻ʔ
I-objAn say-(SgM) tomorrow I go-fut-(t)

₄há iːɲú-hí-βùr”
my dirt-(disk)-goal

b. ò-kʰè nè:-pè pʰɛ́ʾkʰərɛ̀ í iːɲú-hí-βù
I-objAn say-(SgM) tomorrow self dirt-(disk)-goal

í pʰɛ́ː⁻iːnè
self go-fut-(ø)

c. pʰɛ́ʾkʰərɛ̀-βá pʰɛ́ː⁻ɪːpʲɛ̀ í iːɲú-hí-βù
tomorrow-rpt go-fut-(SgM) self dirt-(disk)-goal

The clitic -βá ‘reportative’ may be used in questions, as in 770:

a. à ɯ̀-βà
ques you-rpt

(770) b. à-βà
ques-rpt

ú pʰɛ́-ɛ́⁻ʔì
you go-fut-(t)

{ a. ¿A uva ú peéhi?
b. ¿Ava ú peéhi?

a,b. ‘Are you going (as I was told)?’

In 771 the evidential refers to the implicit subject; ímiá:nè is a predicate complement to an implicit copula:

(771) ¿Ava ímiááne?
à-βá ímiáː⁻nè ‘Is what he said true?’
ques-rpt true-(ø)

The two evidential clitics, -βá ‘reportative’ and -ʔá ‘nonwitnessed’, may co-occur:

(772) Jotséeváhjápe úmivá.
hôtʰɛ́ː⁻βá⁻ʔá⁻pʰɛ́⁻ɪ̲ úmìβá⁻ʔá ‘Joseph escaped
Joseph-rpt-nwit-rem escape-(t) (some time ago).’

³In 769a PLTS applies to nè:-pè where it is phrase final (as indicated by the comma), so it is pronounced nèpè (written neébe). By contrast, in 769b PLTS does not apply because it is not phrase final, so nè:-pè is pronounced nèpè (written neebe).
Here, -βa ‘reportative’ indicates that someone informed the speaker that Joseph had escaped; -ʰa ‘nonwitnessed’ indicates that the person who reported this to the speaker had not seen (nor otherwise experienced) him escaping. Example 773 is similar:

(773) Táñáhbé ocájikyéváhjáa oohííbye dsíjí ventsó bájú pañe.

Here, the reportative indicates that someone informed the speaker that Joseph had escaped; the nonwitnessed indicates that the person who reported this to the speaker had not seen (nor otherwise experienced) him escaping.

Example 773 is similar:

(773) Táñáhbé ocájikyéváhjáa oohííbye dsíjí ventsó bájú pañe.

People who have seen this event do not use -ʰa.

Whoeversaid773hearditfromsomeonewhohadnotobservedtheevent, but who had deduced it based on the evidence (the tracks, the dead cow, ...).

11.2 Adverbial clitics

The adverbial clitics are: -ɾɛ ‘only’ (11.2.1), -huʰkʰo ‘focus’ (11.2.2), -hi:(βa) ‘deny’ (13.3), -upa ‘probable’ (11.2.3), -ʔa(akʰa) ‘realize’ (11.2.4), -ra -ɾo ‘frustrative, contraexpectation’ (11.2.5), -kʰà ‘doubt’ (11.2.6), -ʔa(βh) ‘challenge veracity’ (11.2.7), -ami ‘disgust’ (11.2.8), -tɛ ‘able’ (11.2.9), -mei ‘pity’ (11.2.10), -ʰa’nɛ ‘exclude’ (11.2.11), -βɛ́hɨɯ ‘similar to’ (11.2.12), and -ijo ‘contrary’ (11.2.13).

-ɾa -ɾo ‘frustrative, contraexpectation’ may follow any constituent in a clause; see section 5.12.1.2. The others may follow any major constituent except the verb (although some occur only in the main clause).

11.2.1 -ɾɛ ~ -ye ‘only’

-ɾɛ (-ɾe) ~ -ye (-ye) ‘only’ indicates the host’s referent to the exclusion of others. Examples follow:

(774) Dííllere cheméhí.

Only she is sick or she alone is sick.

(775) Ó imíllé táñáhbekéré o tsájtyene.

I want to take just my brother (no one else).
11.2. ADVERBIAL CLITICS

(776) ɨk^h_j: k^h_rë (ícyoocáre) ‘right now’
now-only

(777) Tsáápiye teene meenúhi.
tɕʰá:-pʰi-jë  tʰɛ:-në  mɛ:nú-ʔì ‘Only one guy did that.’
one-(SgM)-only that-(Ø) did-(t)

(778) a. Tsá múúhaye wákímyévu mepééityúne.
b. Tsá múúhaye mewákímyeítyú(ne).
tɕʰáˀ múúʔa-jë
not we-only
\[
\begin{aligned}
&\{ \\
&a. \text{kpá}^h_\text{m}^l_\text{é}-\beta ù \text{m}^e:i-\text{t}^h_\text{ú}-ñë \\
&\text{work-goal SAP go-fut-neg-(n)} \\
&b. \text{m}^e: \text{kpá}^h_\text{m}^l_\text{í}-\text{t}^h_\text{è}-\text{i-} \text{t}^h_\text{ú}-(\text{në}) \\
&SAP work-go.do-fut-neg-(n)
\end{aligned}
\]
‘We (ex.) are not the only ones
\[
\begin{aligned}
&\{ \\
&a. \text{going to the job (work).}’ \\
&b. \text{going to work.’}
\end{aligned}
\]

(779) Ó wáhdáhínúmeí tátyájkítyu táni itsúwaríye.
ó kpá’táʔi-nú-méi ʔ tʰá  @ tʰáŋ kʰí-tʰù
I cut-mTr-约定 my leg-sou

\[
\begin{aligned}
tʰá  @ ní:tsʰù-kpá-rí-jë \\
&\text{my machete-(slab)-oblIn-only}
\end{aligned}
\]
‘I cut my leg with my very own machete.’

11.2.2 -juco ‘focus’

The second-position clitic -⁽₁⁾húk^h o (-juco) ‘focus’ is obviously related to the verbal suffix -⁽₁⁾húk^h o: ‘now’ discussed in section 5.12.1.1. The difference is that the clitic marks information as focal whereas the verbal suffix is a temporal pointer.

-⁽₁⁾húk^h o ‘focus’ occurs on various types of constituents to mark them as focal, as in 780 and 781:

(780) a. ti:pʰé-húk^h o (Díibýéjuco.) ‘(It was) HE.’
that-(SgM)-focus
b. tí:pʰé-rë-húk^h o (Díibyeréjuco.) ‘(It was) ONLY he.’
that-(SgM)-only-focus

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(781) Íñeriyéjuco tsahróbari nujpáňu.

í-nè-í-jɛ́-hùkʰò tʰáʔròpà-í nùrʰí-à-nù
this-(ø)-oblIn-only-focus basket-oblIn water-do

‘Now get water with THIS, with this basket.’

In 782 the focus is on the situation—the villain’s being attached to a line to cross the river in pursuit of the heroine:

(782) Ahdújucóváa ékéévébeke dityétsí píjyúcuróné vúdoové píínéee-
móvùre.

àʔtú-hùkʰò-β à-í-βá-á [ɛkʰêː-βéː-pɛ̀-kʰè ti-tʰétsí]
thm-(like)-focus-rpt-rem grab-sIn-(SgM)-objAn that-(DuM)

pʰíhʲùkʰù-ró-né βútdò-βé-ʔì
hook-frs -(ø) break-sIn-(t)

pʰí:né-é-mó-βú-rê
middle-per-(big.river)-goal-only

‘It was THUS that the line to which he was attached broke as they approached the middle of the big river.’

-hùkʰò ‘focus’ is used in the formation of a sort of CLEFT sentence. This is formed by placing -hùkʰò ‘focus’ on the focal constituent and subordinating the main clause, by virtue of which the verb bears high tone on the first syllable and ends with -nê (ø) on the main verb. For example, in 783 the focus is on the trail and the verb is pʰéː-nê (go-(ø)):

(783) Aalléváa juuváiyéjuco pééne ijyééúwuúmuma.

à-í-jɛ́-βá-á hùrβá-jí-jɛ́-hùkʰò pʰɛː-nê
thm-(SgF)-rpt-rem trail-oblIn-only-focus go-(ø)

í h’ɛː-ú-kpùú-mù-mà.
sel pet-sg-dim-plAn-with

‘Thus it was ON THAT TRAIL that she went with her pets.’

11.2.3 -uba ‘probable’

-ʊpa (−uba) ‘probable’ indicates that the referent of the phrase to which it is cliticized probably was (or did) what is asserted of it. Examples

---

4In 781 nùrʰí-à-nù ‘get water’ is derived from nùrʰí ‘water’ by the addition of the verbalizer -ɪ-ʊpa (‘do’ (discussed in section 4.3.2.2, 110)). Presumably because this suffix imposes its low tone on the noun’s initial syllable, the verb does not get the expected imperative low tone on the second syllable (as discussed in section 14.1.1), since the two low tones would violate the *LLX constraint.
follow:

(784) a. tíːpʲɛ́-úpá    
     that-(SgM)-prob
     (Diibyéubá.)

b. tfːpʲɛ̀-rɛ-hùkʰó-úpá    
     that-(SgM)-only-focus-prob
     (Dííberéjucóuba.)

a. ‘It is probably he.’
b. ‘It was probably ONLY he.’

(785) ¿Aca ú ɨjtsúcunú u pééiñe? Tsáháuba u pééityú(ne).
    à-kʰà    ú ɨtsʰú-kʰùmú-ʔ [ú pʰɛː-i ]-nè
    ques-doubt you think-sSt-(t) you go-fut -(ø)
    tsʰáʔà-úpá ʉ́  pʰɛː-i-tʰú-(nè)
    not-prob you go-fut-neg-(n)
    ‘Do you think you are going? It is doubtful that you will go.’

11.2.4 -háaáca ~ -ha ‘realize’

-ʔaːkʰa ~ -ʔa (-haaca ~ -ha) ‘realize’ indicates recognition that the referent of the phrase to which it is cliticized was (or did) what is said about it.5 -ʔaːkʰa is used sentence medially if another clitic follows, as in 786, and sentence finally, as in 787:

(786) Jotséeváhaacáa úmɨváhi.
    hòtsʰɛ́ɛ̀-βá-ʔàːkʰ á mɨβá-ʔì    ‘Oh, they say that Joseph
    Joseph-rpt-realize-rem flee-(t) fled some time ago!’

(787) tiːpʲɛ́-ʔaːkʰá    (jDiibyéhaáca!) ‘It is he.’ (I realize
     that-(SgM)-realize that he was the one.)

Otherwise the form is -ʔa, as in 788:

(788) òːʔíː-ʔa    úmɨβá-ʔi    (jOohíbyéha úmivá!)    
     dog-(SgM)-realize escape-(t)
     ‘The dog escaped.’ (I realize that it was the dog that escaped.)

11.2.5 -ra ~ -ro ‘frustrative, contraexpectation’

-ra (-ra) ~ -ro (-ro) ‘frustrative, contraexpectation’ indicates, contrary to what the hearer might think, that the referent of the host of -ra is prop-

5 -ʔaːkʰa ~ -ʔa, here glossed as ‘realize’, might be more technically glossed ‘mirative’. ©2012 SIL International
erly identified as the one of whom the sentence is predicated.  

Examples follow:

(789) Diibyéjúcoóro  
   τíːpʰé-húkʰɔː-rò  ‘But it is HE (although it does not that-(SgM)-focus-frs appear to be).’

(790) Êhnáhó chémeébe. Ároobe wákímyétyéhi.  
   fⁿáʔóʔ  tʃʰɛ́mɛ̀-pɛ́ á-fòː-pɛ́ kpákʰilmɛ́-tʰɛ́-ʔì  
   very.much sick-(SgM) thm-frs-(SgM) work-go.do-(t)  
   ‘He was very sick. However, he went to work.’

See section 5.12.1.2, page 158, for a discussion of -ɾa ∼ -ɾo ‘frustrative, contraexpectation’ as used on verbs. In particular, compare example 790 with 306.

11.2.6 -ca ‘affirm’

-kʰa (-ca) ‘affirm’ either affirms or requests affirmation for the proposition asserted by the clause:

(791) ¿Aca ú májchoóhi?  
   á-kʰà  u máxʧʰò-ó-ʔì  ‘Are you sure you will eat it?’  
   thm-affirm you eat-fut-(t)

(792) ó-kʰà  ó máxʧʰò-ó-ʔì  (Óca ó májchoóhi.)  ‘Yes, I will eat it.’  
   I-affirm I eat-fut-(t)

(793) Dihñétúcá oke daácu.  
   tʃʰɛ́-tʰúu-kʰà  ó-kʰɛ́ tːkʰúu  ‘Give me something  
   your-(o)-sou-affirm I-objAn youImp-give that is really yours.’

(794) Óréiiyéca ó májchoóhi.  
   ó-ɾɛ́ːkʰɛ́-kʰà  ó máxʧʰò-ó-ʔì  ‘I affirm that only  
   I-only-PT-affirm I eat-fut-(t)  I will eat (it).’

11.2.7 -haja ∼ -ha ‘challenge veracity’

-ʔa(ḥa) (-haja ∼ -ha) ‘challenge veracity, verify’ occurs only in questions.  

It challenges the hearer to demonstrate the veracity of a previous claim.

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For example, if someone points out a bird to a person who has trouble seeing it, then that person might challenge the first with 795, which is as though to say “Where in the world is it; I don’t see anything!”

\[
\begin{align*}
\text{mú}-^2\text{ts}^h-\text{tí}-\text{ʔàhà} & \quad (¿\text{Múhtsíhaja}?) \\
\text{WH-(place)}-\text{verify} & \\
\text{k}^h\text{íá}-\text{ʔàhà} & \quad (¿\text{Kíáhaja}?) \\
\text{where-verify} & \\
\end{align*}
\]

‘Where?! (incredulous)’

If someone says (pointing to a group) “He did it.” someone who cannot identify the referent could respond with 796:

\[
\begin{align*}
\text{k}^h\text{à}-\text{p}^j\text{ɛ́}-\text{ʔàhà} & \quad (¿\text{Caabyéhaja}?) \quad \text{‘Which one?’} \\
\text{which-(SgM)}-\text{verify} & \\
\end{align*}
\]

Other examples:

\[
\begin{align*}
\text{mú}-^2\text{tuú-rá}-\text{ʔàhà} & \quad (¿\text{Muhdúráhaja}!) \quad \text{‘How could that be!’} \\
\text{WH-(like)}-\text{frs-verify} & \\
\end{align*}
\]

\[
\begin{align*}
\text{mú}-^2\text{pá-ʔàhà} & \quad (¿\text{Muubáhaja}?) \quad \text{‘Who could it be?’} \\
\text{WH-(SgM)}-\text{verify} & \\
\end{align*}
\]

\[
\begin{align*}
¿\text{Muubáha tsááhií?} \\
\text{mú}-\text{pá-ʔà} & \quad \text{ts}^h\text{á}-\text{ʔìi} \quad \text{‘Who(SgM) could be coming?’} \\
\text{WH-(SgM)-verify come-(t)} & \\
\end{align*}
\]

11.2.8 -ami ‘disgust’

-àmì ‘disgust’ expresses disgust. It is only used in rhetorical questions.

\[
\begin{align*}
\text{i}-\text{ná-àmì} & \quad (¿\text{Ianáami}?) \quad \text{‘What? (when provoked what-(ø)-disgust by something)’} \\
\text{WH-(like)-disgust that-(ø)} & \\
\end{align*}
\]

\[
\begin{align*}
\text{mú}-^2\text{tuú-ami} & \quad \text{t}^h\text{è}-\text{nè} \quad (¿\text{Muhdúami teéne}?) \quad \text{‘How can that be!’} \\
\text{WH-(like)-disgust that-(ø)} & \\
\end{align*}
\]

\[
\begin{align*}
\text{i}\text{veekíami ehdu méénuúbe!} \\
\text{i}β\text{-k}^h\text{-àmì} & \quad \text{è}-\text{tú} \quad \text{m}^h\text{nú-ø} \quad \text{‘What did he do what-pur-disgust that-(like) do-(SgM) THAT for?!’} \\
\end{align*}
\]
11.2.9 -hde ‘be able’

-ʔtɛ ‘be able’ indicates that its host’s referent is able to do the action indicated by the verb:

(803) ó-ʔtɛ o máxʧʰò-ó-ʔi (Óhde ó májchoóhi.) ‘I can eat it.’
I-able I eat-fut-(t)

(804) Óréhdéiikyéca ó méénuúhi.
ó-ɾɛ́-ʔtɛ́-ìːkʲʰɛ́-kʰà ó méːnú-ũ-ʔi ‘I can do it, and
I-only-able-be-affirm I do-fut-(t) do it I will!’

It can also be used to indicate permission, as in 805:

(805) Anéhde waáca dípye.
ànɛ́-ʔtɛ̀ kpàː-kʰà ti-pʲʰɛ̀ ‘O.K., then,
concede-able permit-affirm youImp-go you may go.’

11.2.10 -mei ‘pity’

-meï (-mei) ‘pity’ indicates compassion or pity. For example:

(806) tíːpʲɛ̀-mɛ́ì (díbyeméi) ‘poor thing (SgM)’!
that-(SgM)-pity

(807) Tsɨ́ɨ mɛ̀mɛ̀-mɛ́ì áːkʰìtʲʰɛ́-ʔiːk [í-jɛ́ ɪˢkʲʰà ]-ːpɛ̀
child-pity fall-(t) self-only be -(SgM)
‘The poor child fell, being alone.’

11.2.11 -jtane ‘exclude’

-xᵗʰanɛ (-jtane) ‘exclude’ indicates that an action is done without taking into consideration another person or thing. For example:

(808) Diityéjtane dsɨíneébe.
tiː-ʔtʰɛ-ᵽᵗʰànɛ tʃiːnɛː-ːpɛ̀ ‘He ran leaving
that-(AnPl)-exclude run-(SgM) them behind.’

(809) Áámye majchó ájyújtane.
ámɛ́ s₈mʧʰò-ʔ ðʰúːr-xᵗʰànɛ she.prox eat-(t) husband-exclude
‘This one (SgF) ate without including her husband.’

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11.2. ADVERBIAL CLITICS

11.2.12 -véjiu ‘similar to’

-βɛ́hɨ̀ɯ (-véjiu) ‘similar to’ indicates similarity or likeness. For example:
(810) kpàʔáɾó-βɛ́hɨ̀ɯ òó (Waháróvéjiu oó.) ‘I am like my mother.’
    mother-similar I

11.2.13 The combination -i-ro ‘contrary’

The combination of -i ‘projected time’ and -ro ∼ -jo ‘frustrative, contra-
expectation’ is cliticized to noun phrases to indicate that some situation
is contrary to what one expects, what one might want, what is likely to
happen, and so forth. For example, 811 runs contrary to the expectation
that a singular masculine being would be present:
(811) kʰà-ːpʲɛ́-ì-jò (¿Caabyéiyo?) ‘Which one (SgM)?’
    which-(SgM)-PT-frs

Examples 812–817 run contrary to the expectation that the person or ob-
ject in question would be present:
(812) kʰàː-tʲʰɛ́-ì-jò (¿Caatyéiyo?) ‘Which ones (AnPl)?’
    which-(AnPl)-PT-frs

(813) iː-ːnɛ́-ì-jò (¿Ɨɨnéiyo?) ‘Which one (In)?’
    which-(ø)-PT-frs

(814) kʰɛ̀ː-kpá-ì-jò (keewáiyo) ‘Which plank (table,
    which-(ø)-PT-frs machete,…)?’

(815) tʰàˀ-ɲɛ́-ì-jò (Tahñéiyo.) ‘I wish it were mine (but it isn’t).’
    my-(ø)-PT-frs

(816) Wajpíiyo pééneé.
    kpàˣpʰí-i-jò pʰɛː-nɛ̀ ‘A MAN should have gone
    man-PT-frs go-(ø) (not a woman or child).’

(817) Wajpi pééiyéone.
    kpàˣpʰí pʰɛː-i-jó-nɛ̀ ‘A man SHOULD go.’
    man go-PT-frs-(ø)
Chapter 12

Some Minor Categories

The minor categories include: conjunctions, interjections, particles, and onomatopoeic expressions.

12.1 Conjunctions

Bora has no word like English and. The conjunction of nominals is achieved by means of suffixes or by a “summation” word as discussed in section 7.6.

There are two disjunctive morphemes, àmí ‘or’ and mitʰá ‘or’, which to our knowledge are entirely interchangeable. They are used to ask which of two alternatives is correct, occurring between the clauses that express the alternatives, as in the following examples:

(818) ¿A ú májchoó mityá tsá u májchio̱tyúne?
à ú máɣʰ̰ò-ó-ʔ miʔʰá tsʰáʔ ú máɣʰ̰ó-i-tʰú-ŋ ð
ðh you eat-fut-(t) or not you eat-fut-neg-(n)à
‘Will you eat or not?’

(819) ¿A óma ú pééhi mityá ú cóévaáhi díŋáallema?
à ó-mà ú pʰɛ̀-ɛ́-ʔi miʔʰá ú kʰóɛβà-á-ʔi
ðh I-with you go-fut-(t) or you stay-fut-(t)
tí ñá:-tʃɛː-mà
your sib-⟨SgF⟩-with
‘Will you go with me or stay with your sister?’

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Examples 820 and 821 show that much of the second clause may be ellipsed:

(820) ¿A ú peéhi amí tsáhaá?
   à ú pʰɛ̀-ɛ́-ʔì , amí tsʰàʔàá ‘Will you go or not?’
y/n you go-fut-(t) or not

(821) ¿A ú peéhi mityá áánuú?
   à ú pʰɛ̀-ɛ́-ʔì , mítʰá á:nùú ‘Will you go or will
   y/n you go-fut-(t) or this.SgM this one (go)?’

### 12.2 Interjections

The interjections listed below express the speaker’s emotions or attitude. They are never part of a sentence.\(^1\)

úʛ (új) ~ hùʔùː (juhúú) expresses surprise
ʧʰíʛ (chíj) ~ ʧʰíː (chíí) expresses surprise or admiration
ɲóːòː (ñóóo) expresses happiness

Many other interjections are used in the interaction between people: to get another’s attention, to answer, or to indicate a reaction. A few of the more common follow:

éhè (éje) calls attention to look at something (like English ‘Look!’)
áhùu (áju) calls attention to receive something given (like English ‘Here! Take it!’)
áàʛ (áaj) answers a call or indicates a question (like English ‘Yes, what do you want?’)
hùnùhù (juújuj) ~ hùnú (juú) ~ únú (uú) indicates agreement (like English OK.)
màʔùù (maáhuúj) indicates that one does not know (like English ‘I don’t know!’)
hùrù (juuu) indicates incredulity (like English ‘I can’t believe it!’)

### 12.3 Particles

The PARTICLES listed below call attention, express surprise, ask permission, and so forth. In contrast to the interjections discussed in section 12.2, the particles are sentence constituents.

---

\(^1\)However, they might be used at the margin of a sentence, much like we might say in English “OK. I’ll go.”
a(ː) (a) ‘yes/no’ is used to ask questions that can be answered with ‘yes’ or ‘no’.

(822) à ú pʰè-ɛ-ʔì (¿A ú peéhi?) ‘Are you going?’
   yh you go-fut-(t)

a-kʰa (aca) (yn-doubt aca) is used to ask regarding something that the speaker heard, asking for confirmation and simultaneously indicating disapproval or incredulity, as in 823. (See also example 785, page 313.)

(823) ¿Aca ú peéhi?
   à-kʰa ú pʰè-ɛ-ʔì ‘You are going?!
   yh-doubt you go-fut-(t) (I don’t want that!)

a-βa (ava) (y/n-rpt ava) is used to ask regarding something reported by another person (not the person to whom the question is addressed):

(824) ¿Ava ú peéhi?
   à-βa ú pʰè-ɛ-ʔì ‘Is it true (as someone told me)
   yh-rpt you go-fut-(t) that you will go?’

(825) ¿Acává ú peéhi?
   à-kʰá-βa ú pʰè-ɛ-ʔì Has somebody said
   yh-doubt-rpt you go-fut-(t) you are going.’

pòʔ2 (bo) ‘well’; see example 828.

kʰána (cána) ~ kʰa ca requests or grants permission to do something.

(826) Cána uke ó úúbállej.
   kʰánà ú-kʰè ó uːpáʧɛ̀-ˣ ‘Allow me to tell you.’
   permit you-objAn I tell-voc

(827) a. Cána nè cóóvaíñú úmɨhétu u tsáábeé.
   b. Cóóvaíñú ca úmihétu u tsáábeé.
   a. kʰána nɛ́ʔ(ì) kʰóː-βà-íɲɯ́ ‘I suggest that you gather firewood when you come from
      permit implore firewood-have-do.go
      firewood-have-do.go permit
      [úmɨʔé-tʰú ûître sʰá ]-pêːx
      field-sou you come -⟨SgM⟩
      a,b. ‘I suggest that you gather firewood when you come from
      the field.’

2 The full form, used in isolation, is pòʔò.
(828) a. Cána bo né dicha.
b. Cá bo né dicha.
   a. kʰáŋà
   b. kʰá
permit
   \( p^{\circ} \) né?(ɨ)  tì-tʰà
   well implore you\Imp-come
   ‘I suggest that you come.’

můːrá (muurá) indicates confirmation, as in 829:

(829) Ááné boone muurá peebe ìiɨŋújîvu.
   áː-né  @  pʰè-:pè  í  iːnú-hí-βù
   that-⟨ø⟩  after  confirm  go-(SgM)  self  dirt-(disk)-goal
   ‘Afterwards he went to his country.’
   nɛ́ (né) ‘implore’; see examples 827a and 828.

kpáì (wái) indicates permission, as in 830:

(830) kpáì  mɛ̀ pʰɛ̀-ˣ  (Wái mepej.) ‘Well, go (plural)!’
   permit  SAP  go-voc

12.4 Onomatopoeia

Onomatopoeic expressions (ideophones) generally imitate their referent; for example, kʰàʔó-kʰáʔò imitates the sound of chewing something hard. In 831 áβí imitates the sound of a tree’s leaves moving. (By virtue of not being reduplicated, this indicates a single action.)

(831) Daalli áákityé ‘ávɨj’.
   tàːʧìáːkʰìtʲʰɛ́-ʔìáβí
   sloth fall-(t)  swish
   ‘The sloth fell “swish” (making the sound of movement through the branches).’

Many onomatopoeic expressions are formed by the reduplication of a verb root; see section 2.6. These indicate multiple action. Examples follow:

(832) a. ‘Allîhálli’ ihjyúvaábe.
   b. ‘Allîhálli’ néebeé.
   c. ‘Allîhálli’ tsíñááveébe.
   \( \text{āʧíʔ-āʧí} \)
   lie-lie
   \( \text{amide} \)
   a. iʰʰúβà-ːpè
   speak-(SgM)
   ‘He speaks lying.’
   b. nɛ-ːpè
   say-(SgM)
   ‘He is a liar.’
   c. tʰñá-ːβɛ-ːpè
   turnout-sIn-(SgM)
   ‘He has become a liar.’

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A reduplicated form may be used as a clause’s predicate, but it never bears affixes (so is not a verb per se).

Some onomatopoeic expressions are conventional references to a movement, a characteristic, or a sensation. For example, in 833, àkʰjɛʔ-ákʰɛ̀ refers to the movement of a child in its crib when it does not sleep well:

(833) Aabye tsǐímene ‘akyéhákyéré’ cuwáhi.
àːpʰɛ̀ tʰfːmɛnɛ̀ àkʰjɛʔ-ákʰɛ̀-ɾɛ́ kʰɯ̀kpá-ʔì
thm-⟨SgM⟩ child wake-wake-only sleep-⟨t⟩
‘That child sleeps, waking up frequently.’

As in 833, for many onomatopoeic words the sound symbolism is not transparent, as illustrated further in 834:

(834) a. kʰàmá-kʰámà (camácama) ‘doing one thing after another’
   b. kʰàʧɯ́-kʰáʧɯ̀ (callúcállu) ‘digging up the ground’
   c. kʰàɲáˀ-kʰáɲà (cañáhcáña) ‘crawling’
   d. kʰùní-kʰúni (cunícúni) ‘jumping on one leg’

Onomatopoeic expressions are generally used adverbially as in 832a and 833 but they may also be used in other ways, even as nouns as in 832b and c.
Chapter 13

Negation

This chapter discusses negation with adjectives (13.1), simple negation in finite clauses (13.2), contrastive negation (13.3), prohibitions (13.4), and negation in subordinate clauses (13.5).

13.1 Negation with adjectives

-tʰɯ (-tu) ‘neg’ may be added to adjectives (of which there are very few) to derive the opposite sense, e.g., iʔtsʰutʰɯ ‘strong’ is derived from iʔtsʰu ‘weak’. Other examples follow; in 835a and 836 the tone is high on -tʰɯ ‘neg’ because the adjective is used as a predicate.

(835) a. ímítyú diíbye.
   b. ímityúné méénudí(ñe).
   a. ímí-tʰuú ti:p'è  ‘He is bad.’
      good-neg that-⟨SgM⟩
      good-neg-⟨ø⟩ do-neg-⟨n⟩

(836) ímyétú teéne.
   ímìc-tʰúú  tʰè:nè  ‘That is insipid (lacking
   savory-neg that-⟨ø⟩  sweetness or saltiness).’
13.2  Simple negation in finite clauses

A finite verb or predicate complement is negated by placing high tone on its first syllable and suffixing -tʰuₙ (-tune) ‘negative-(n)’ or simply -tʰuₙ. (-tu). We will first discuss cases with preverbal subjects and then those with postverbal subjects.

With preverbal subjects, ʦʰɑʔ(a) ‘not’ is added to the beginning of the clause, as in 837–840:

(837) Tsá dibye péétune.
ʦʰɑʔ ti-pʰɛ̀-tʰuₙ ‘He did not go.’

(838) Tsá dibye májchotú(ne).
ʦʰɑʔ ti-pʰɛ̀ máˣʧʰò-tʰuₙ ‘He has not eaten.’

(839) ʦʰɑʔ òáːʔɨ́βɛₙ ‘I did not go home.’

Three features of negatives suggest that negative clauses are structurally subordinate clauses, complements to a higher predicate ʦʰɑʔa ‘not’:

1. low tone on the proclitic subject pronoun,
2. high tone on the verb’s first syllable, and
3. -nɛ (n) at the end of the clause. Although this has been glossed ⟨n⟩, it may be the suffix glossed ⟨ø⟩ that is used in forming subordinate clauses.

The structure of 839 would be as in 841:

(841) [V ʦʰɑʔ '] [NP [NP ʥʰɛ́-tʰuₙ ] -nɛ ]
not I go.home-neg ⟨ø⟩

Further examples with preverbal subjects:

(842) Tsá o chéénetú(ne).
ʦʰɑʔ ʧʰɛ:nɛ-tʰuₙ ‘I did not eat (fruit).’

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13.3. CONTRASTIVE NEGATION WITH -jííva 'DENY'

(843) Tsá o áwácuńtu(ne).
\[tsʰ^h\acute{a}^{o} \, \acute{\alpha}k\acute{p}ákʰ\ddot{u}nú-tʰ\ddot{u}r-(n\acute{e})\] 'I did not yawn.'
not I yawn-neg-⟨n⟩

(844) Tsá o áájɪ́vetú(ne).
\[tsʰ^h\acute{a}^{o} \, \acute{\alpha}híβɛ-tʰɛ-tʰ\ddot{u}r-(n\acute{e})\] 'I did not go to eat.'
not I eat-go.do-neg-⟨n⟩

-tsʰáʔ(a) 'not' may be followed by the clitic -i 'projected time' (PT); in this case the negation applies to the meaning of the clitic. For example, in 845 tsʰáʔáî (not-PT) denies that the event has already happened:

(845) Tsáhái dibye tsáátune.
\[tsʰ^h\acute{a}^{o} \, \acute{\alpha}ʔá-ì [t\ddot{i}-pɛ̀ \, tsʰ \, s\ddot{a}-tʰ\ddot{u}r]-n\acute{e} \] 'He has not yet come.'
not-PT that-(SgM) come-neg -⟨n⟩

With postverbal subjects, there is no overt negative word (like tsʰáʔ(a) 'not' in the previous examples) and the classifier subject occupies the place of -nɛ. Thus, two arguments for the claim that these negatives are subordinate are not available; the only available argument is that the first syllable of the verb bears high tone (as characteristic of subordinate clauses). Examples follow. In 846, -\(\ddot{t}\)ːpɛ̀ (SgM) delinks the low tone of -tʰuu 'neg' in order to place its low tone on -tʰuu.

(846) má\(\ddot{t}\)ːhô-tʰuuːpɛ̀ (Májchótuúbe.) 'He has not eaten (bread).'
eat-neg-⟨SgM⟩

(847) a. tó:-tʰuuːpɛ̀ (dóótuúbe) 'He has not eaten (meat).'
b. áʔíβɛ-tʰuuːpɛ̀ (ááhívétuúbe) 'He did not visit.'
c. má\(\ddot{t}\)ːjö-tʰuu-mè (májchotúme) 'They have not eaten (bread).'

13.3 Contrastive negation with -jííva 'deny'

-hí:(βa) (-jííva) 'deny' indicates contrastive or emphatic negation, denying that the referent of the phrase to which it is cliticized was or did what has been asserted (or assumed) about it. The form -hí:βa is used at the end of a sentence and -hí: is used within a sentence. -hí:(βa) may be cliticized to verbs (13.3.1) or to nominals (13.3.2).

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13.3.1 -jī́va with verbs

With verbs, -hi:(βa) ‘deny’ imposes a low tone on its host’s final syllable. Further, the host’s initial syllable must bear high tone (in the same way as -tʰɯ’ neg; see section 3.10.) Thus, the form for verbs is: #H...-lihi:(βa).

When someone is accused of doing something bad, he can emphatically deny this by saying:

(848) òmɛːnɯ́ː-ːpɛ̀-hɨ́ːβà (O méénúúbejī́va.) ‘I did NOT do it!’
I do-⟨SgM⟩-deny

Note that—contrary to the PREVERBAL SUBJECT CONSTRAINT, page 129)—there seem to be two subjects in 848: the preverbal o ‘I’ and the postverbal classifier -ːpɛ (⟨SgM⟩). However, this is not the case if its structure is as in 849, where the clause is subordinate:

(849) [òmɛːnɯ́]-ːpɛ̀ [V hɨ́ːβà] I do - ⟨SgM⟩ deny

This structure not only resolves the conflict with the PREVERBAL SUBJECT CONSTRAINT, it also accounts for the verb’s initial high tone (since the initial syllable of the verb of a subordinate clause always bears a high tone).

The question in 850a could be answered by either 850b or c. The difference is that 850b is more emphatic than 850c:

(850) a. ¿A tsúúca dítyáábá majchójucóó?
   b. Tsáhái; májchóllejī́va.
   c. Tsáhái dille májchotúne.

   a. à tsʰúːkʰà tí  tʰáːpámàˣʧʰó-hɯ́kʰóː y/n already your wife eat-now
   b. tsʰáʔá-ːi ; máʰʧʰó-ʧɛ̀-hɨ́ːβà not-PT eat-⟨SgF⟩-deny
   c. tsʰáʔá-ːi tʰɛː máʰʧʰó-tʰú-nɛ̀ not-PT that-⟨SgF⟩ eat-neg-⟨n⟩

   a. ‘Has your wife already eaten?’
   b. ‘Not yet; she has not eaten.’
   c. ‘She has not yet eaten.’

Likewise, the first sentence in 851 may be followed by either 851a or 851b; the former is more emphatic than the latter:
13.3. CONTRASTIVE NEGATION WITH -jɨ́va ‘DENY’

With pronouns, nouns or noun phrases -hǐːba (-jɨ:va) ‘deny’ imposes a low tone on its hosts antepenult, while itself bearing high tone: -L⃝⃝hǐːba.

- L⃝⃝hǐːba ‘deny’ follows the constituent that is focally negated, as in the following conversational exchanges. (See also example 1122, page 432.)

(853) a. Áádi; díñahbéuba tsájucóó.
   b. Tsáhaá; diibyéjíva. Tsá dibye ihajchíí tsááityúne.

   a. átii ; tí ⊗ nà: ʔpɛ-ųpà ʔtsá-hùkʰó: that.one(distal) your sib-(SgM)-prob come-now-(t)
   b. tsʰáʔàá ; tì-p’έ-hǐːba
      not that-(SgM)-deny

   tsʰáʔàá ; tì-p’έ - iʔà<*tʰíːf : ts’há:i-tʰú-nè not that-(SgM) today come-fut-neg-(n)

   a. ‘(Look at) that one over there; your brother must be coming.’
   b. ‘No; that is not he. He will not come today.’
(854) a. ¿Ava dínaalle peéhi ámejúvu?
   b. Tsáhaá; diilléjííva. Óóréjuco.

   a. à-βà tí @ ná-ːʧɛ̀ pʰɛ̀-ɛ́-ʔì ámɛ̀hɯ́-βù yh-rpt your sib-(SgM) go-fut-(t) downriver-goal
   b. tsʰâʔàá ; ti-ːpʲɛ́-hɨ́ːβà . ó-ːɾɛ́-hɯ̀kʰò
      not that-(SgF)-deny I-only-focus

   a. ‘Will your sister go downriver (as they say)?
   b. ‘No, not she. Only I (will go).

(855) a. Díoohííbye tácáracáke lliihánúhi.
   b. Tsáhaá; diibyéjííva. Díoohííbyére.

   a. tí oːʔí-ːpʲɛ̀ tʰá G kʰáɾ L akʰá-kʰɛ̀ ʧìːʔánɯ́-ʔì your dog-(SgM) my chicken-objAn kill-(t)
   b. tsʰâʔàá ; ti-ːpʲɛ́-hɨ́ːβà . tí oːʔí-ːpʲɛ́-ɾɛ̀

   a. ‘Your dog killed my chickens.’
   b. ‘No, not THAT one. YOUR dog (did it).’

13.4 Prohibitions

Imperatives are discussed in chapter 14; this section deals with prohibitions, i.e., negative imperatives.

-团圆ti ‘prohibit’ indicates that the action of the host verb should not be done, forming a PROHIBITION or NEGATIVE IMPERATIVE. -团圆ti (-hdi) is used with monosyllabic verbs and -团圆ti (-di) with polysyllabic ones. As with团圆tʰu ‘neg’, -ŋe ⟨n⟩ may follow 团圆ti. These points are illustrated in the following examples:

(856) pʰɛ̀-团圆(nè) (¡Pehdíñe! ~ ¡Pehdí!) ‘Don’t go!’
     go-prohibit-⟨n⟩

(857) mɛ́ːnɯ̀-团圆(nè) (¡Méénudíñe! ~ ¡Méénudí!) ‘Don’t do it!’
     do-prohibit-⟨n⟩
13.5 Negation in subordinate clauses

Subordinate clauses are negated with -\textsuperscript{1}\textsubscript{h}tʰu ‘neg’ but they never have ts\textsuperscript{h}aʔ(a) ‘not’ as in main clauses. In 861 negation occurs in a relative clause and in 862 and 863 it occurs in a case-marked subordinate clause used as an adverb:

(861) Diibye májchodútúube dsɨ́ jɨ́vébe.
\[
\text{ti}:p'è  \quad [\text{mā\textsuperscript{s}ʧʰître-tʰú }]\text{-pè} \quad \text{tsɨhùβɛ́-ʔi} \\
\text{that-⟨SgM⟩} \quad \text{eat-neg} \quad -⟨\text{SgM}⟩ \quad \text{die-⟨t⟩} \\
\text{‘The one who did not eat died.’}
\]

(862) Diibye ímájchótúnéri dsɨ́jvéhi.
\[
\text{ti}:p'è\textsuperscript{2} \quad [i \text{ mā\textsuperscript{s}ʧʰître-tʰú }]\text{-nè-ɾi} \quad \text{tsɨhùβɛ́-ʔi} \\
\text{that-⟨SgM⟩} \quad \text{self eat-neg} \quad -⟨\text{event}⟩\text{-oblIn die-⟨t⟩} \\
\text{‘Because he did not eat, he died.’}
\]

(863) Ímájchótúnéri dsɨ́jvéébe.
\[
[i \text{ mā\textsuperscript{s}ʧʰître-tʰú }]\text{-nè-ɾi} \quad \text{tsɨhùβɛ́-pè} \\
\text{self eat-neg} \quad -⟨\text{event}⟩\text{-oblIn die-⟨SgM⟩} \quad \text{‘Because he did not eat, he died.’}
\]

\textsuperscript{2}In 862 the first word has a long vowel, even though it is the subject. This is because a subordinate clause intervenes between the subject and the verb; see the discussion that accompanies example 635, page 270.
Negation within a complement may be expressed in the main clause (yielding the sort of example that has been used to motivate “neg raising”). For example, 864 is understood to mean ‘I want that [he not go]’, where either ‘he’ or ‘go’ is negated. However, structurally tsʰá^[t]...-tʰú(ně) has within its scope the main verb ímíʧɛ̀ ‘I want’, the object complement of which is extraposed:

(864) Tsá o ímíletú dibye pééneé.

\[ \text{tsʰá} \Box \text{ímíʧɛ̀-tʰú } [\text{ti-pʰɛ̀ } \text{pʰɛ́: }]\text{-něč } \text{‘I don’t want not I want-neg that-⟨SgM⟩ go -⟨∅⟩ him to go.’} \]
Chapter 14

Imperatives

Imperatives are generally used to tell the hearer to do or not to do something. One type of imperative, namely prohibitions, was discussed in section 13.4. In this chapter, the form of imperatives is discussed in section 14.1, various ways to modify imperatives in section 14.2, and degrees of strength of imperatives in 14.3.

Imperative verbs bear the nonfinite low tone as described in section 14.1.1. Throughout this grammar, the nonfinite tone is sometimes represented with $^N$ over the vowel of the syllable that bears the nonfinite low tone. In this chapter this nonfinite low tone is represented with $^i$ to remind the reader that this is the “imperative” tone.

14.1 The form of imperatives

Imperative clauses are distinguished from indicative ones in the following ways:

1. An imperative never has an overt subject noun phrase. Rather, the subject of an imperative (i.e., the addressee) is indicated by a pronominal proclitic$^1$ as now described. (Note, syllables are counted before the application of PLTS (section 3.7.1) or FLTS (section 3.7.2).)

   **singular subject:**
   
   If the verb is monosyllabic, the pronominal proclitic is ti- ‘you (imperative)’.

---

$^1$These are the same as some of the pronouns used as possessors in the genitive construction; see section 14.1.2.
CHAPTER 14. IMPERATIVES

(865) tí-tʲː-ːː (lit. Dídyóó!) you-eat-emph
‘Eat (meat)!’

If the verb stem is polysyllabic and begins with a vowel, it is simply t- ‘you’:
(866) t-óː-tʰː-ːː (lit. Déóteé!)
you-eat-go.do-emph
‘Go eat (meat, singular emphatic)!’

If the verb stem is polysyllabic and begins with a consonant, the subject is left implicit (with no explicit pronoun):
(867) máˣʧʰ (lit. Májcho.) ‘Eat!’ (singular, bread)
eat

plural subject: In all cases, the pronoun is mɛ ∼ ma ‘SAP’ (speech act participant):
(868) mɛ́ tóː-tʰː (lit. Médoóte!) ‘Go eat (pl, meat)!’
SAP eat-go.do

(869) a. mɛ́ pʰːɛ́ (lit. Mépeé!) ‘Go! (pl)’
   b. mɛ́ má-xʧʰː (lit. Mémajcho!) ‘Eat! (pl, bread)’
   c. mɛ́ má aːpɯ́kʰɯ̀ (lit. Máaabúcu! ‘Hold up! (pl)’
   d. mɛ́ má akʰɯ́ːβɛ̀ (lit. Máacúúve! ‘Sit down! (pl)’
   e. mɛ́ imápución (lit. Méimibájcho!) ‘Fix it! (pl)’

2. There are three suffixes that occur on imperative verbs which do not occur on indicatives; these are discussed in section 14.2.2.
3. The second syllable of the proclitic + stem is 1 if there are no more than three syllables. Otherwise the verb receives nonfinitive tone; see section 14.1.1 for details.

14.1.1 Tone in imperatives

Imperative verbs bear the nonfinite low tone, represented below with 1 (for “imperative”) over the vowel, docked according to the following rule:

Taking the pronoun and verb stem together, the imperative low tone occurs as early as possible but (1) not before the antepenult and (2) not on the initial syllable, which must bear high tone.2

2Example 781, page 311, is exceptional in having a low tone on the initial syllable; for discussion see footnote 4, page 311.

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This pattern is motivated by the cases in which the imperative consists of a monosyllabic pronoun followed by a nonfinite verb stem, as is true of the singular imperatives of monosyllabic verbs and of all plural imperatives. The pronoun bears high tone and the verb stem bears the nonfinite low tone, which docks “regressive to the antepenult”:

\[ [\text{pronoun}^\text{H}] + [\text{nonfinite verb stem} \, \ldots \sigma(\sigma(\sigma))] \].

If that were all that there is to it, the characterization in terms of the nonfinite tone would suffice and it would not be necessary to speak of an “imperative” tone. However, singular imperatives of polysyllabic verbs do not have an additional syllable corresponding to the pronoun. Despite this, the verb’s initial syllable bears high tone and the imperative tone follows (but never earlier than on the antepenult). For example, in 867 \( I \) docks on the final syllable of \( \text{ma}^\text{ʧʰo} \) ‘eat’.

Thus, the tone pattern for imperatives, including the singular imperatives of polysyllabic verbs, consists in placing a high tone on the first syllable (whether or not that actually falls on a pronoun) and docking the imperative low tone regressive to the the antepenult (but without displacing the high tone on the initial syllable). This justifies speaking of an “imperative” tone, understood as a special case of nonfinite tone. The following table is given for comparison. The imperative forms include the syllable that corresponds to the pronoun (if present).

```

<table>
<thead>
<tr>
<th>IMPERATIVE</th>
<th>NONFINITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>σ</td>
<td>( \sigma )</td>
</tr>
<tr>
<td>σσ</td>
<td>( \sigma\sigma )</td>
</tr>
<tr>
<td>σσσ</td>
<td>( \sigma\sigma\sigma )</td>
</tr>
<tr>
<td>( \ldots\sigma )σσσσ</td>
<td>( \ldots\sigma)σσσσ</td>
</tr>
</tbody>
</table>

Figure 14.1 A comparison of imperative and nonfinite tone
```

We now illustrate the various cases. (Remember that syllables are counted before the application of PLTS and FLTS.)

1. There are no **monosyllabic** imperatives (although the verb stem may be monosyllabic as in 865).
2. If the combination of the pronoun and verb stem have two or three syllables, then the second syllable (of the combination) bears the imperative low tone, as in the following examples.
Bisyllabic:
(870) tí-pʰɛ-Iɛ-ː (Dípyeé.) ‘Go!’
youImp-go-emph

Trisyllabic:
(871) t-á:pʰùkʰù (Dáábucu!) ‘Endure!’
youImp-endure
(872) mɛ́ maˣʧʰò (Mémajcho!) ‘Eat (pl)’!
SAP eat

Example 873 is trisyllabic, although it ends up with four syllables due to the application of PLTS:
(873) t-ákʰ-ːβɛ̀ (Dácuúve!) ‘Sit down!’
youImp-sit-sIn

The verb stem may include a derivational suffix:
(874) a. t-ómaˣʧʰò (Dómajco!) ‘Touch! (sg)’
youImp-touch-implore
b. máˣʧʰ-ːβɛ̀ (Májchote!) ‘Go to eat! (sg)’
eat-go.do

3. If the combination of the pronoun and verb stem have more than three syllables, then the stem bears the imperative low tone on its antepenult. This tone overrides any lexically marked tones. Examples follow:
(875) a. t-ímpʰá铉ò (Dímbajcho!) ‘Fix it! (sg)’
    b. t-ákpʰúnù (Dáwacúnu!) ‘Yawn! (sg)’
    c. kʰáβɯ́hʲákʰò (Cávúihjyáco!) ‘Push! (sg)’
(876) mé ímpʰá铉ò (Mémbúajcho!) ‘Fix it (plural)!’

When the root is followed by derivational suffixes, the antepenult is determined from the end of the stem, as in the following:
(877) t-ímpʰá铉ò (Dímbajcho!) ‘Fix it! (sg)’
    t-ímpʰá铉ó-tsʰò (Dímbajchóts!), ‘Cause it to be fixed!’
    t-ímpʰá铉ó-tsʰò-ːβɛ̀ (Dímbajchotsóte!) ‘Go cause it to be fixed!’

The imperative tone delinks the tones imposed by suffixes. For example, it delinks the 1 of -tʰɛ ‘go to do’ in 878 and 879:
(878) t-ímpʰá铉ó-tʰɛ̀ (dímpájchóte) ‘Go fix it! (sg)’
(879) mé máˣʧʰó-tʰɛ̀ (Mémajchóte) ‘Go eat! (pl, bread)’
14.1.2 Comparison of imperative and genitive pronominal proclitics

The proclitics t(i)- ‘you, your’ and mɛ ‘SAP’ occur in both the imperative and genitive constructions. Their tones in these constructions differ because the genitive low tone may dock on the proclitic pronoun whereas the imperative (nonfinite) low tone does not. Compare the following pairs:

(880) GEN: mɛ́ G máʧʰò (memájcho) ‘our (SAP) food’ 
IMP: mɛ́ I máʧʰò (Mémajcho.) ‘Eat (pl)!’

(881) GEN: mɛ́ G ím N ípáʧʰò (meímibájcho) ‘our fixing/job’ 
IMP: mɛ́ ímáʧʰò (¡Meímibájcho!) ‘Fix it (pl)!’

(882) GEN: mɛ́ páʦʰò (mebájtso) ‘our (SAP) planting’ 
IMP: mɛ́ páʦʰò (Mébájtso.) ‘Plant! (pl)’

(883) GEN: {mɛ́ mā} átò {meádo maádo} ‘our/your (pl) drink’ 
IMP: {mɛ́ má} átò {Méado! Maado!} ‘Drink (pl)!’

However, the proclitics of imperatives may be shortened or deleted with polysyllabic verbs (or verb stems), as illustrated in 884. By contrast, in 885 the verb is monosyllabic so the proclitics do not differ between the genitive and imperative (except for tone):

(884) GEN: tʲ átò (diádo) ‘your (sg) drink’ 
IMP: t-átò (¡Dádoó!) ‘Drink (sg)!’

(885) GEN: tʲ tʲò (didyo) ‘your (sg) meat’ 
IMP: tʲ tʲò (¡Dídyoó!) ‘Eat your meat!’

14.1.3 Stem changes in imperatives

The singular imperative of some verbs differs slightly from the corresponding nonimperative:
1. Some roots that begin with a light syllable add a glottal stop in the singular imperative, making the initial syllable heavy.\(^3\)

<table>
<thead>
<tr>
<th>IMPERATIVE</th>
<th>NONIMPERATIVE</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-áˀ`kpaː</td>
<td>(dáhwaá)</td>
<td>àkpa (awá) ‘diet’</td>
</tr>
<tr>
<td>t-ì`ìjó</td>
<td>(díhilloó)</td>
<td>ìjó (illo) ‘chop’</td>
</tr>
<tr>
<td>t-áˀ`ìnù</td>
<td>(dáhñuú)</td>
<td>àñù (añu) ‘shoot’</td>
</tr>
</tbody>
</table>

2. Some roots that begin with a syllable made heavy by vowel length (/Vː/) replace this with a glottal stop in the singular imperative. Verbs that show this behavior follow:\(^4\)

<table>
<thead>
<tr>
<th>IMPERATIVE</th>
<th>NONIMPERATIVE</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-áˀm</td>
<td>(dáhmuú)</td>
<td>àm (aám) ‘throw and hit’</td>
</tr>
<tr>
<td>t-ɛ́`βì</td>
<td>(déhvée)</td>
<td>ɛβ (eeve) ‘read’</td>
</tr>
<tr>
<td>t-ì`nè</td>
<td>(díhneé)</td>
<td>ìnè (íne) ‘move over’</td>
</tr>
<tr>
<td>t-ì`tʰè</td>
<td>(díhtéé)</td>
<td>ìtʰè (íte) ‘look’</td>
</tr>
<tr>
<td>t-óˀ`mi</td>
<td>(dóhmií)</td>
<td>ómi (oómi) ‘return’</td>
</tr>
<tr>
<td>t-ù`hètʰè</td>
<td>(dùhjete)</td>
<td>ùhètʰè (úujéte) ‘arrive’</td>
</tr>
</tbody>
</table>

Consider also the alternation between the singular and plural imperatives in 886:

(886) a. t-ù`hètʰè (¡Dúhjete!) ‘Go (sg) see.’
   SAP see-go.do
   youImpl-see-go.do
b. mɛ`ù`hètʰè (¡Méuujéte!) ‘Go (pl) see.’
   SAP see-go.do

3. Some verbs that begin with /Vˣ/ in the nonimperative make this into a long vowel (/Vː/) in the singular imperative. Verbs that behave this way are:

<table>
<thead>
<tr>
<th>IMPERATIVE</th>
<th>NONIMPERATIVE</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-ákʰùú</td>
<td>(dáácuú)</td>
<td>ákʰùú (ajcu) ‘give’</td>
</tr>
<tr>
<td>t-í<code>kʰ</code></td>
<td>(díjya)</td>
<td>íkʰ` (ijya) ‘be’</td>
</tr>
<tr>
<td>t-úkʰùú</td>
<td>(dúúcuú)</td>
<td>úkʰùú (ujcu) ‘get’</td>
</tr>
</tbody>
</table>

For example, note the alternation in 887:

(887) a. ò-kʰè má ̀`kʰùú (¡Oke máajcu!) ‘Give (pl) it to me!’
   I-objAn SAP give
b. ò-kʰè t-àkʰùú (¡Oke daácu!) ‘Give (sg) it to me!’
   I-objAn youImpl-give

\(^3\)Note that the first two imperatives have split final vowels due to PLTS.

\(^4\)PLTS has applied in the penult of many of the nonimperative forms.

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These changes are summarized in table 14.1; the first line of each cell gives the imperative and the second gives the corresponding nonfinite stem.\(^5\) (The plural imperatives of these verbs involve no change to the stem; they simply add the proclitic me.)

Table 14.1 Singular imperatives: changes in the initial syllable

<table>
<thead>
<tr>
<th>V(^7)</th>
<th>V(^7)</th>
<th>V(^x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-á’kpàá ‘diet!’</td>
<td>t-á’kʰìtʰɛ́ ‘fall down!’</td>
<td>t-á:kʰùùú ‘give it!’</td>
</tr>
<tr>
<td>ḥkpà</td>
<td>ḥkʰìtʰ</td>
<td>ḥkʰùù</td>
</tr>
<tr>
<td>t-í’ʧòó ‘cut it down!’</td>
<td>t-á’mùùú ‘hit it!’</td>
<td>t-ìːkʰàá ‘stay!’</td>
</tr>
<tr>
<td>ḥʧò</td>
<td>ḥmùùú</td>
<td>ḥkʰà</td>
</tr>
<tr>
<td>t-á’ìnxùú ‘shoot!’</td>
<td>t-á’ncè ‘move over!’</td>
<td>t-úr:kʰùùú ‘get it!’</td>
</tr>
<tr>
<td>ḥìnxù</td>
<td>ḥncè</td>
<td>ḥkʰùù</td>
</tr>
</tbody>
</table>

Many verbs undergo neither change:\(^6\)

1. Some have a long vowel in both the singular imperative and the nonimperative: t-ɛ́ːpɯ̀: from ɛ̀ːpɯ̀, t-á:pàtʰɛ́ʦʰò from ápàtʰɛ́ʦʰò, t-á:pò: from ápò, t-á:pùkʰù from ápùkʰù, t-á:pùkʰù from ápùkʰù, t-á:ʔɪβɛ̀, from áʔɪβɛ̀, t-ìkʰùú from íkʰùú, t-ú:pàtʃɛ́ from úpàtʃɛ́.

2. Some verbs have a glottal stop closing the first syllable in both the singular imperative and the nonimperative: t-ɨ́ːtɛ̀nɯ̀ from ɨ̀ːtɛ́nɯ̀, t-ɨ́ːtʰɛ̀ɛ from ɨ̀ːtʰɛ́ɛ, t-ɨ́ːtʰɯ̀ from ɨ̀ːtʰɯ̀, t-ɨ́ːβɛ́ʦʰò from ɨ̀ːβɛ́ʦʰò, t-ɨ́ːβɛ́tʰɛ́ from ɨ̀ːβɛ́tʰɛ́, t-áːtòʦʰò from áːtòʦʰò, t-áːtò: from áːtò, t-ɪːtò: from ɪːtò, t-ɪːtùú from ɪːtúú, t-ɪːh’uβà from í’h’uβà, t-ɪːh’uβás’hò from í’h’uβás’hò, t-óːpànùú from òːpànùú, t-úːpà: from úːpà.

3. In some verbs, preaspiration closes the first syllable in both the singular imperative and the nonimperative: t-ɪ:sʰàmɛ́ from ɪːsʰàmɛ́, t-ɪ:sʰùkʰùnùú from ɪːsʰùkʰùnùú, t-á:kʰà: from áːkʰà, t-áːtʰùkʰùnùú from áːtʰùkʰùnùú, t-áːk’hβɛ́e: from áːk’hβɛ́e, t-ɪːβɛ́ from ɪːβɛ́, t-ɪːβɛ́ʦʰò from ɪːβɛ́ʦʰò, t-ɪːβɛ́tʰβɛ́ from ɪːβɛ́tʰβɛ́, t-ɪːβɛ́tʰβɛ́ʦʰò from íːβɛ́tʰβɛ́ʦʰò, t-ɪːβɛ́tʰβɛ́tʰβɛ́ from íːβɛ́tʰβɛ́tʰβɛ́.

4. Some verbs have a short vowel in both the singular imperative and the nonimperative: t-ɪpáts’hùhák’hò from ípáts’hùhák’hò, t-ɪk’hùpá’rà

\(^5\)Other cases of the alternation between V\(^7\) and V: are as follows:

<table>
<thead>
<tr>
<th>imperative</th>
<th>non-imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-ɪːnɛ́ʦʰò</td>
<td>t-ɪːɛ́ʦʰò</td>
</tr>
<tr>
<td>‘move it over’</td>
<td>‘make move over’</td>
</tr>
<tr>
<td>t-ɪːʧò</td>
<td>t-ɪːtʰɛ́</td>
</tr>
<tr>
<td>‘look!’</td>
<td>‘look’</td>
</tr>
<tr>
<td>t-ɪː’mú</td>
<td>t-ɪːmù</td>
</tr>
<tr>
<td>‘return!’</td>
<td>‘return’</td>
</tr>
<tr>
<td>t-ɪː’mí</td>
<td>t-ɪːmí</td>
</tr>
<tr>
<td>‘return it!’</td>
<td>‘make return’</td>
</tr>
<tr>
<td>t-ɪː’hɛ́</td>
<td>t-ɪː’hɛ́</td>
</tr>
<tr>
<td>‘go see!’</td>
<td>‘go see’</td>
</tr>
</tbody>
</table>

\(^6\)For the meanings of the verbs below, see (Thiesen & Thiesen 1998).
14.2 Modifying imperatives

14.2.1 Emphatic imperatives

An imperative can be made more emphatic by the addition of -ː. Compare the unmarked and emphatic imperatives in 888:

(888) a. máŋh o (Májcho.) ‘Eat! (sg, nonemphatic)’
    b. máŋh ː (Májchoː!) ‘Eat! (sg, emphatic)’

The addition of -ː creates the conditions for applying FLTS, whereby the final vowel “splits.” This is reflected in the orthographic forms of 888 as well as 889a and b:

(889) a. t-ímîpáŋh ː (Dímibájchoő!) ‘Fix it! (emphatic)’
    you-fix-emph
    b. t-ímîpáŋh ː-tʰɛː (Dímibajchóteé!) ‘Go fix it! (emphatic)’
    you-fix-go.do-emph

Compare 890a and b:

(890) a. máŋh ː-tʰɛː-ʔì (májchotéhi) ‘goes to eat’
    b. máŋh ː-tʰɛː (májchotéé!) Go eat! (sg, emphatic)’

We expect the second syllable of 890b to bear low tone for two reasons: (1) it precedes -tʰɛ ‘go to do’, and (2) it should bear the imperative low tone because the word is a trisyllabic imperative. However, it bears high tone. This is evidence that the emphasis morpheme imposes low tone on the host’s final syllable and adds a mora: -ː. The tone delinks the low tone of the preceding syllable and the conditions for FLTS are met. The tone derivation of máŋh ː-tʰɛː ‘Go to eat!’ is given in figure 14.2:
14.2. MODIFYING IMPERATIVES

14.2.2 -co ‘implore’ and -juj ‘quick’ with imperatives

The suffixes -kʰo (-co) ‘implore’ and -hɯˣ (-juj) ‘quick’ can be added to an imperative verb. They occur only on imperatives and they may not co-occur.

The suffix -kʰo ‘implore’ is added to encourage the hearer to do the action indicated by the verb it follows, as in 891 and 892. Example 892 could be either a plea or an emphatic directive.

(891) máʧʰ I-o-kʰò (¡Májchoco!) ‘Please eat!’

eat-implore

(892) pʰɛ́ː-kʰ I-oː (¡Péécoó!) ‘Go immediately!’

go-implore-emph

The suffix -hɯˣ ‘quick-vocative’ instructs the hearer to carry out the action indicated by the verb with haste. The preceding verb stem bears the imperative tone (with perhaps some exceptions); because -hɯˣ ‘quick-vocative’ is not a derivational suffix, it is not taken into account in locating the nonfinite tone (which is determined from the end of the stem), as illustrated in 893:

(893) a. t-imípa Nʧʰó-tʰɛ̀-hɯ-x (¡Dímibajchótejuj!) ‘Go (sg) fix it!’
you-fix-go.do-quick-voc

b. t-omá Nkʰ-hû-x (¡Domájcojuj!) ‘Touch (sg) it!’
you-touch-quick-voc

c. ma Nʧʰó-βà-hû-x (majchóvajuj) ‘Come (sg) to eat now!’
eat-come.do-quick-voc

-ʔhû-x imposes a low tone on its host’s final syllable if possible; it does not delink the nonfinite tone, as illustrated in 894:
CHAPTER 14. IMPERATIVES

(894) māⁿʧʰó-hùʳ-x (¡Majchójuj!) ‘Eat (sg) quickly!’
  eat-quick-voc

In 895, -１○βa ‘come to do’ makes the stem trisyllabic. Its １ docks on the antepenult, in this case the root’s first syllable, coinciding with nonfinite low tone. Finally, -$hùʳ-x docks its ３ on its host’s final syllable:

(895) mɛ́ māⁿʧʰó-βà-hùʳ-x (¡Mémajchóvajuj!) ‘Come (pl) eat bread now!’
  SAP eat-come.do-quick-voc (bread) now!

In 896a and b, “quick” modifies “going” rather than “eating”.

(896) a. māⁿʧʰó-tʰɛ̀-hùʳ-x (¡Majchótejuj!) ‘Go (sg) quickly to eat!’
   eat-go.do-quick-voc
b. tōː-tʰɛ́-hùʳ-x (¡Dootéjuj!) ‘Go (sg) quickly to eat (meat)’
   eat-go.do-quick-voc to eat (meat)

Compare 896b with the corresponding plural in 897. The nonfinite tone docks on the proclitic (as stated above for plural imperatives). The allows the ３ of -$hùʳ-x to dock on the host’s final syllable, which was not possible in 896b because the nonfinite tone docked on the host’s penult.

(897) mɛ́ tōː-tʰɛ̀-hùʳ-x (¡Medóótejuj!) ‘Go (pl) quickly to eat (meat)’
  SAP eat-go.do-quick to eat (meat)

14.2.3 The adverb ɨ́ːkʰɯ́ì ‘quickly; hurry’

The adverb ɨ́ːkʰɯ́ì (ɨ́ːkʰɯ́ì) ‘quickly; hurry’ may follow an imperative verb, as in 898 and 899. Note that the verbs bear the tones expected for an imperative verb.

(898) Májchote ɨ́ːkʰɯ́ìí.
    māⁿʧʰó-tʰɛ̀ ɨ́ːkʰɯ́ì-ː ‘Go quickly to eat.’
    eat-go.do quickly-emph

(899) Mémajchóté ɨ́ːkʰɯ́ìí.
    mɛ́ māⁿʧʰó-tʰɛ̀ ɨ́ːkʰɯ́ì-ː ‘Go quickly to eat.’
    SAP eat-go.do quickly-emph

Or ɨ́ːkʰɯ́ì ‘hurry’ may precede the verb to express an urgent imperative, as in 900–902. Note that in this case the verb bears the nonfinite low tone.

(900) ɨ́ːkʰɯ́ì māⁿʧʰó (ɨ́ːkʰɯ́ì majcho!) ‘Hurry up, eat!’
    hurry eat
14.2. MODIFYING IMPERATIVES

(901) ɨ́ːkʰɯ́ì didyo!
ɨ́ːkʰɯ́ì ti-tʲʰ
‘Hurry up, eat (meat)’
hurry youImp-eat.meat

(902) ɨ́ːkʰɯ́ì dipye dihjyávu.
ɨ́ːkʰɯ́ì ti-pʲʰ ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì ɨ́ːkʰɯ́ì
‘Quickly, go to your house.’

Note further that ɨ́ːkʰɯ́ì ‘quickly’ ends with a low tone which is immediately followed by a verb that bears an initial low tone. Thus, the “adverb” and the verb do not belong to the same phonological phrase because, if in the same phrase, the adjacent low tones would violate the *LLX constraint. Further note that the verbs in 900–902 do not have high tone on the initial syllable as expected for an imperative verb (as discussed in section 4.1); they have the tones of a nonfinite verb.

In light of these factors, we consider ɨ́ːkʰɯ́ì ‘hurry’ to be a verb that takes a nonfinite complement. To see the contrast between the simple imperative and ɨ́ːkʰɯ́ì followed by a nonfinite complement, a number of verbs are given in table 14.2, first with the finite imperative (bearing the imperative low tone ɨ́ːkʰɯ́ì), and then the nonfinite verb that would follow ɨ́ːkʰɯ́ì.

In plural imperatives, the verb is preceded by the proclitic mɛ‘SAP’ and, surprisingly, the nonfinite tone (N) can dock on the proclitic if the stem is mono- or bisyllabic. This is illustrated in 903:

(903) mɛ N máʧʰò-hɯ̀-ˣ ɨ́ːkʰɯ́ì (¡Memájchojuj!) ‘Eat (sg, bread) now!’
SAP eat-quick-voc
CHAPTER 14. IMPERATIVES

Table 14.2 Simple imperatives and complements to ᵈʰcúi ‘hurry’

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>go!</strong></td>
<td>tí-pʰɛː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>dípyéé</td>
</tr>
<tr>
<td><strong>eat (fruit)!</strong></td>
<td>tʃɛːnː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>léeéne</td>
</tr>
<tr>
<td><strong>eat(bread)!</strong></td>
<td>máʰtʰː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>mà́jcho</td>
</tr>
<tr>
<td><strong>eat (meat)!</strong></td>
<td>tí-tʰː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>dídyoó</td>
</tr>
<tr>
<td><strong>swallow!</strong></td>
<td>mɛ́’tːo</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>méødó</td>
</tr>
<tr>
<td><strong>touch!</strong></td>
<td>ʈoʰ’kʰː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>dómajco</td>
</tr>
<tr>
<td><strong>stop doing!</strong></td>
<td>tʰβɛ</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>dɨhvéte</td>
</tr>
<tr>
<td><strong>fix!</strong></td>
<td>tʰ’imá’kʰː</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>dîmíbajcho</td>
</tr>
<tr>
<td><strong>throw out!</strong></td>
<td>kpáːkʰ</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>wáágoo</td>
</tr>
<tr>
<td><strong>yawn!</strong></td>
<td>tʰ’akpʰ’unu</td>
</tr>
<tr>
<td>ᵈʰkʰúi</td>
<td>tʰ’akpʰ’unu</td>
</tr>
</tbody>
</table>

The lexically marked low tones of ʰ’akpʰ’unu ‘to yawn’ block the docking of the imperative (nonfinite) low tone on the antepenult of the last three of the forms given here. We do not know why the same is not true of the first form.

14.3 Degrees of strength of imperatives

This section describes explanations (14.3.1), exhortations (14.3.2), hortatives (14.3.3), and a way to soften imperatives (14.3.4).
14.3. EXPLANATIONS

Although explanations are not imperatives, we begin with them because they can be interpreted as suggestions, that is, as very weak imperatives. Explanations present the subject with either mû:nè (IndefAnPl) ‘indefinite animate plural’ or mûʔà (IndefAnSg) ‘indefinite animate singular’. The verb bears the pronominal proclitic mɛ- (me- ∼ ma-) ‘SAP’ and ends with -ʔì ⟨t⟩. This is illustrated in 904:

(904) a. Íllu múúne núhbake méímibajchóhi.
   b. Íllu muha núhbake méímibajchóhi.

   íʧû
   like.that

   \{
   a. mû:nè
   IndefAnPl
   núʔà-pà-kʰè
   clock-objAn
   b. mûʔà
   we.ex
   mɛ́ íмípàˣʧʰó-ʔì
   fix-⟨t⟩
   \}

   a. ‘One fixes the clock like this.’
   b. ‘We (ex.) fix the clock like this.’

14.3.2 EXHORTATION

To exhort a hearer to some action, the pronoun mûuu (múu) ‘indefinite animate singular’ is used as the preverbal subject. For example, 905a is a declarative and 905b is the corresponding exhortation:

(905) a. Ú íмíbajchó dihmííne.
   b. Múu íмíbajchó dihmííne.

   a. ú
   you
   b. múu
   IndefAnSg

   íмípàˣʧʰó-ʔì
tí  mû:nè
   fix-⟨t⟩
your canoe

   a. ‘You fixed your canoe.’
   b. ‘You ought to fix your canoe.’

Example 906 is a negative exhortation.\(^8\)

---

\(^7\) The singular declarative corresponding to 904b is:

íʧû núʔà-pà-kʰè ö íмípàˣʧʰó-ʔì (Íllu núhbake ö íмíbajchóhi)
thus clock-⟨s⟩ I fix-⟨t⟩
‘I fix the clock like this.’

\(^8\) Note that, because 906 is negative, the verb bears -ne ⟨n⟩ rather than -ʔì ⟨t⟩, as in the corresponding imperative:

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(906) Tsá múu ímityúné méénutúne.
ʦʰaˀ mɯ́ːnì ímì-tʰú-ːnɛ́ mɛːnɯ̀-tʰú-ːnɛ̀
not IndefAnSg good-neg-⟨ø⟩ do-neg-⟨n⟩
‘One should not do bad things.’

Compare the exhortation of 907a with the explanation in 907b:

(907) a. Íllu múu meenúhi.
    b. Íllu múune mémeenúhi.

a. íʧɯ̀ m mɛ̀ːnɯ́-ʔì 'You ought to do it
   like.that IndefAnSg do-⟨t⟩ this way.’

b. íʧɯ̀ mɯ́ːnɛ̀ mɛ mɛ̀ːnɯ́-ʔì
   like.that IndefAnPl SAP do-⟨t⟩

14.3.3 Hortatives with májo and métsu ‘let’s go’

The words máhò (májo) ‘let’s (du.in.)!’ and métsʰù (métsu) ‘let’s (pl in.)!’
are inherently imperative verbs (bearing high-low tone). They may be
used by themselves, in which case they mean ‘Let’s go!’, or they may have a
complement. The verb of the complement verb is preceded by the pronom-
inal proclitic mɛ ‘SAP’ and may be followed by -˧kʰi ‘purpose’. If the com-
plement’s verb is clause final, -˧kʰi normally occurs, as in 908 and 909.
If, however, it is clause medial, /kʰi/ is normally absent, although its low
tone is still docked on the preceding syllable (unless blocked by another
low tone), as in 910. The complement’s verb always bears high tone on its
first syllable because it is subordinate; this tone is not overridden by the
low tone of -˧kʰi, as in 908 and 910.

(908) ¡Májo mepéé(ki)!  
 máhò [mɛ̀ pʰɛː-(kʰiː)]  ‘Let’s both of us go!’
let’s.go SAP go-pur

(909) ¡Métsu memájcho(ki)!  
 métsʰù [mɛ sʧʰò-(kʰi)]  ‘Let’s go! (plural)’
let’s.go SAP eat-pur

ɪmɪ-tʰú-ːnɛ́ mɛːnɯ̀-tʰú-ːnɛ̀ (Ímityúné méénudíne.)  ‘Do not do bad things.’
  good-neg-⟨ø⟩ do-neg-⟨n⟩

Moreover, the negative suffix of 906 is -ᵗʰu, which is used only with finite verbs; it is not
-🕖ti, as in the corresponding imperative.
14.3. DEGREES OF STRENGTH OF IMPERATIVES

(910) Métu mepéé cóómívuú!
\[\text{mets}^{h} \text{ù [mè p}^{h} \text{ɛ: k}^{h} \text{ó:mí-βù:] \quad \text{‘Let’s go to town!’}}\]
\[\text{let’s.go SAP go town-goal}\]

(911) ¡Májo meááhíve!
\[\text{máhò mè ʰâ:ʔɛ-βɛ̀-tʰɛ́-kʰi} \quad \text{‘Let’s visit.’}\]
\[\text{let’s.go SAP visit}\]

(912) Métu meááhíveté.
\[\text{mets}^{h} \text{ù mè ʰâ:ʔɛ̀-βɛ̀-tʰɛ́-kʰi} \quad \text{‘Let’s go to visit.’}\]
\[\text{let’s.go SAP visit-go.do-pur}\]

(913) Májo íícúi teene wákímyí meníjévaki.
\[\text{máhò ʰɛkʰuí tʰɛ́:-nɛ̀ kpákʰímɛ̀} \quad \text{‘Let’s finish the work quickly.’}\]
\[\text{let’s.go quickly that-⟨ø⟩ work SAP finish-pur}\]

In 913, kpákʰímɛ̀ ‘work’ bears a low tone on the antepenult because it is nonfinite and nτʰɛ́βɛ̀-kʰi ‘finish-pur’ bears a high tone on the initial syllable because it is the verb of a subordinate clause.

The tone patterns of maho and metsʰu vary, providing three degrees of urgency, as shown in table 14.3:

Table 14.3 Three degrees of urgency with májo and métu

<table>
<thead>
<tr>
<th></th>
<th>DUAL</th>
<th>PLURAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT URGENT</td>
<td>HL máhò</td>
<td>métu mèsʰù</td>
<td>‘Let’s go!’</td>
</tr>
<tr>
<td></td>
<td>(májo)</td>
<td>(métu)</td>
<td></td>
</tr>
<tr>
<td>URGENT</td>
<td>LL máhò</td>
<td>métu mèsʰù</td>
<td>‘Come on now; let’s go!’</td>
</tr>
<tr>
<td></td>
<td>(májo)</td>
<td>(métu)</td>
<td></td>
</tr>
<tr>
<td>VERY URGENT</td>
<td>HL máhò:</td>
<td>métu mèsʰù:</td>
<td>‘Come on, let’s get moving!’</td>
</tr>
<tr>
<td></td>
<td>(májoó)</td>
<td>(métuú)</td>
<td></td>
</tr>
</tbody>
</table>

With other verbs, degrees of urgency are usually indicated with qualifying adverbs or adverbial suffixes, as discussed in the following section.

14.3.4 Softening imperatives with kpai ‘permit’

An imperative (but not a prohibition) may be softened to a suggestion or a statement of permission by putting kpai(i)\(^9\) (wái) ‘permit’ before it. This

\(^9\)The final /i/ of kpái ‘permit’ may be dropped, in which case it is like saying: “Alright, go on and do it, but I’m not very happy about it.”
is illustrated in the following imperatives. (Note that the final /ʰ/, glossed as ‘vocative’, reflects the absence of a glottal stop that would ordinarily be present.)

(914) Wái majchoj.
   kpáí màˣʧʰô-ˣ ‘You (sg) may eat (bread).’
   permit eat-voc

(915) Wái majchótej.
   kpáí màˣʧʰó-tʰɛ̀-ˣ ‘You (sg) may go eat (bread).’
   permit eat-go.do-voc

(916) Wái tómajcótej.
   kpáí tʰómàˣkʰó-tʰɛ̀-ˣ ‘You (sg) may go touch it.’
   permit touch-go.do-voc

(917) Wái méwaagóoj.
   kpáí mɛ́ kpàːkóò-ˣ ‘You (pl) may throw it out.’
   permit SAP throw-voc

(918) Wái méimibájchoj.
   kpáí mɛ́ ímìpåˣʧʰô-ˣ ‘You (pl) may fix it.’
   permit SAP fix-voc

(919) Wái méwaagóotej.
   kpáí mɛ́ kpàːkóò-tʰɛ̀-ˣ ‘You (pl) may throw it out.’
   permit SAP throw-go.do-voc

(920) Wái méimibajchótej.
   kpáí mɛ́ ímìpåˣʧʰô-tʰɛ̀-ˣ ‘You (pl) may go fix it.’
   permit SAP fix-go.do-voc

Note that in all these cases the verb following kpáí ‘permit’ bears nonfinite tone (as discussed in section 4.1). This suggests that, like ɨ́ːkʰɯ́ì ‘hurry’ discussed in section 14.2.3, kpáí ‘permit’ is a verb that takes a nonfinite complement.
Chapter 15

Question Formation

There are two types of question: “yes/no” questions (15.1) and “content” questions (15.2).

Questions are spoken with the same intonation as declaratives, but there may be tone changes.

15.1 Yes/no questions

Yes/no questions are formed from indicative sentences by starting them with a ‘yes/no’,¹ as in 921 and 922. (See also example 955, page 361.)

(921) ¡A u ţsáá ámëjutu?
à ţbá:.ʔ ámëhùɾ-ɾùɾ y/h you come-(t) downriver-sou from down river?’

(922) ¡A mítyáábécoba diibye?
à mítʰá:-pɛ-kʰòpà tì-pːɛ’re he a big one (SgM)?’
y/h big-(SgM)-aug that-(SgM)

15.2 Content questions

Content questions always begin with an interrogative phrase. This might

¹In isolation this is áà, as in áà (¿Áa?) ‘What?’.
be simply an interrogative pronoun (as described below). For example, 923 is a simple statement and 924 is a question, in which the interrogative pronoun múʔà ‘who’ is used as the subject:

(923) O tsáá áméjutu.
    ō tháːː-ʔ áméhù-tʰùù ‘I come from down river.’
    I come-(t) down.river-sou

(924) ¿Múha tsáá áméjutu?
    múʔà tháːː-ʔ áméhù-tʰùù ‘Who comes from
    who come-(t) down.river-sou down river?’

Interrogative phrases are formed from the roots and stems of table 15.1:

Table 15.1 The interrogative roots

<table>
<thead>
<tr>
<th>Root</th>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>múʔàa</td>
<td>(múha)</td>
<td>‘who (animate, nominative)’</td>
</tr>
<tr>
<td>iː⁻nè</td>
<td>(iːne)</td>
<td>‘what (inanimates)’</td>
</tr>
<tr>
<td>kʰà⁻c</td>
<td>(ca⁻)</td>
<td>‘which (animate)’</td>
</tr>
<tr>
<td>kʰɛ̀ː⁻</td>
<td>(kee⁻)</td>
<td>‘which (inanimate)’</td>
</tr>
<tr>
<td>íβɛ̀ː⁻</td>
<td>(iβee⁻)</td>
<td>‘why’</td>
</tr>
<tr>
<td>mú⁻</td>
<td>(mu⁻)</td>
<td>‘WH’</td>
</tr>
</tbody>
</table>

\(a\) múʔà ‘who’ is never followed by a classifier. It is only used as the subject; iː⁻nè ~ iː⁻ná is used in other cases.

\(b\) iː ‘what’ is never followed directly by a classifier other than -nè (Ø).

\(c\) kʰà⁻ and kʰɛ̀ː⁻ ask for the identification of an individual (or individuals) from some set of possible candidates, as constrained by the classifier that follows. kʰà⁻ is used for animates and kʰɛ̀ː⁻ for inanimate.

The roots mú- ‘WH’ and íβɛ̀ː⁻ ‘why’ can be followed by either an animate or an inanimate classifier and, of course, a case marker. This gives them great generality, as illustrated in table 15.2 and the examples that follow.

Table 15.2 Interrogative phrases with mú- ‘WH’ and íβee- ‘why’

<table>
<thead>
<tr>
<th>Root</th>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>mú⁻ih̞u</td>
<td>(mújiyu)</td>
<td>‘when’</td>
</tr>
<tr>
<td>mú⁻²tu</td>
<td>(muhdu)</td>
<td>‘how’</td>
</tr>
<tr>
<td>mú⁻kh₇</td>
<td>(muucá)</td>
<td>‘who’ (obj)</td>
</tr>
<tr>
<td>mú⁻²ti⁻(th̞u)</td>
<td>(muhdityu)</td>
<td>‘about whom’</td>
</tr>
<tr>
<td>mú⁻²f̞i</td>
<td>(mullif̞e)</td>
<td>‘for whom’</td>
</tr>
<tr>
<td>mú⁻màá</td>
<td>(múumaá)</td>
<td>‘with whom’</td>
</tr>
<tr>
<td>mú⁻kʰòːkʰa</td>
<td>(múucooca)</td>
<td>‘when’</td>
</tr>
<tr>
<td>mú⁻tsʰiːi</td>
<td>(mútsiːi)</td>
<td>‘where’</td>
</tr>
</tbody>
</table>

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The interrogative phrase generally ends with a high tone indicated in the gloss by ¿?.

(925) ¿Muhdí(tyú) ihjyúvaábe?
mù-ú-tí-(íhú) i’húβàː-pè ‘About whom does he speak?’
WH-anim-sou.¿? speak-⟨SgM⟩

(926) mù-r-má ú pʰè-ɛ-ʔì (¿Muumá ú peéhi?) ‘With whom will you go-fut-⟨t⟩?’
WH-with.¿?yougo-fut-⟨t⟩

(927) mù-r-ih’ú ú pʰè-ɛ-ʔì (¿Múijyú ú peéhi?) ‘When are you going?’
WH-⟨time⟩.¿?yougo-fut-⟨t⟩

iβɛɛ ‘why’ can be followed by either an animate or an inanimate classifier; see 928:

(928) a. ¿Ɨ́véébeke ú tsiváhi?
b. ¿Ɨ́veewa ú tsiváhi?
a. ɨ́βɛ́-ːpɛ̀-kʰɛ̀ ‘Why did you bring him?’
b. ɨ́βɛ̀ː-kpà ‘Why did you bring that slab (table, plank,…)?’

Interrogative pronouns may be animate (15.2.1) or inanimate (15.2.2).

15.2.1 Animate interrogative pronouns

Animate interrogative pronouns are masculine, feminine or unspecified for gender. They are third person, and either singular, plural or dual. See table 15.3 and the examples that follow.

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc. mùː-pè (muúbe)</td>
<td>mùː-ːtʰè-tsʰì (muutétsi)</td>
<td>mùː-ːtʰè (muúte)</td>
</tr>
<tr>
<td>fem. mùː-ʧɛ (muúlle)</td>
<td>mùː-ːtʰè-pʰì (muutépi)</td>
<td></td>
</tr>
<tr>
<td>unspec. mùː-ʔà (múha)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(929) ¿Múúbécoba tsááhi?
múː-ːpè-kʰèpà tsʰáː-ʔì ‘Who is the big guy that came?’
WH-⟨SgM⟩-aug come-⟨t⟩

In 930 the interrogative pronoun bears -kʰe ‘objAn’ because it is an animate direct object:
CHAPTER 15. QUESTION FORMATION

(930) ¿Múúbeké ú tsiváhi?
\[mɯ́ːpɛ̀-kʰɛ́ ú t^{h}\iβá-ʔi\] ‘Whom (SgM) you bring-(t) do you bring?’

As stated above, the interrogative phrase generally ends with a high tone (glossed “¿?”). There are two cases where this is not so. First, múʔà ‘who’ never bears a final high tone. Second, in an embedded question (discussed on page 364) the interrogative word ends with a low tone.

When used as the subject of a clause, the forms that end in /e/ change this to a high tone /a/, as shown in 931 and illustrated in 932.

(931) NONSUBJECT SUBJECT
\[mɯ́ːpɛ̀ (muúbe) → mɯ́ːpá (muubá) ‘who (SgM)’\]
\[mɯ́ːʧɛ̀ (muúlle) → mɯ́ːʧá (muullá) ‘who (SgF)’\]
\[mɯ́ːtʰɛ̀ (muúte) → mɯ́ːtʰá (muutá) ‘who (AnPl)’\]

(932) ¿Muubá tsááhií?
\[mɯ́-ːpá ʦʰáː-ʔìí ‘Who (SgM) comes?’\]

Likewise, when the interrogative phrase is an object terminated with the animate object suffix, the form is -kʰa rather than -kʰɛ; for example:

(933) ¿Mucá ú tsiváhií?
\[mɯ́ːkʰá ú t^{h}\iβá-ʔi ‘Whom (Sg/Du/Pl) are you bringing-(t) you bringing?’\]

These two facts—the final high tone and the vowel change—are evidence of an interrogative suffix that (1) has a \( H \) to be docked on its host’s final syllable, and (2) causes the change of /e/ to /a/.²

The interrogative pronouns of table 15.4 ask for the identification of the person or animal with respect to some group (in the same way that which does in English). When used in a question, the final syllable of the interrogative phrase bears high tone but (unlike the forms in table 15.3) do not change /e/ to /a/. (These interrogative pronouns are also used in embedded questions; see examples 960 and 961, page 364.)

Table 15.4 Animate interrogative pronouns formed with ca- ‘which’

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc.</td>
<td>kʰàː-pɛ̀ (caábe)</td>
<td>kʰàː-tʰɛ̀ʦʰì (caatyétsi)</td>
<td>kʰàː-tʰɛ̀ (caátye)</td>
</tr>
<tr>
<td>fem.</td>
<td>kʰàː-ʧɛ̀ (caálle)</td>
<td>kʰàː-tʰɛ̀pʰɨ̀ (caatyépî)</td>
<td></td>
</tr>
</tbody>
</table>

²This morpheme is likely to have developed historically from a morpheme *ʔa ‘verify’, reflexes of which are now present in múʔà ‘who’ and -ʔa(ha) ‘challenge veracity’ (see section 11.2.7). The change of /e/ to /a/ could have arisen by vowel harmony or coalescence.
In 934 the interrogative pronoun is the direct object; because it is animate it bears -\( \ddagger \)kʰe ‘objAn’:

(934) ¿Caatyêtsikyé ú tsiváhi?
\[ kʰàː-tʰêtˢʰi-kʰë \] ú tsʰìβá-ʔì ‘Which two (DuM) are which-(DuM)-objAn.¿? you bring-(t) you bringing?’

In 935 the interrogative pronoun takes -⁽ˀ⁾ti (-hdi) ‘benefactive’ because it is animate:

(935) ¿Cáábyedí(tyú) ú ihjyúváhi?
\[ kʰá-ːpʲɛ̀-tí-(tʰɯ́) \] iʰúβá-ʔì ‘About which one (SgM) of them are you talking?’

15.2.2 Inanimate interrogative pronouns

Inanimate interrogative pronouns are third person and may be singular, dual, or plural. They do not reflect gender. There are two roots. First, iː- ‘what’ is used to ask for the identity of one or more things. It is always followed by -nɛ̀ ⟨ø⟩, presumably because the one who asks does not know what it is and thus cannot use a more specific classifier.

(936) a. iː-ná (îiná) ‘what (sg)’
what-⟨ø⟩.¿?

b. iː-nɛ̀:kʰú (îneecú) ‘what (du)’
what-⟨ø⟩-du.¿?

c. iː-nɛ̀-ˀhí (înehjí) ‘what’ (pl)’
what-⟨ø⟩-pl.¿?

When used as a subject (as in 937), as direct object (as in 938), or as predicate complement (as in 939), iːná changes to iːná

(937) iː-ná á:kʰtʰë-ʔì (¿îiná áákityéhi?) ‘What fell?’
what-⟨ø⟩.¿? fall-(t)

(938) iː-ná ú tsʰìβá-ʔì (¿îiná ú tsiváhi?) ‘What did you bring-(t)’
what-⟨ø⟩.¿? you bring-(t)

(939) iː-ná iːnɛ̀ (¿îiná îñneé?) ‘What is this thing?’
what-⟨ø⟩.¿? this-⟨ø⟩

The questions in 940 ask for more specific information regarding a tree or means of transportation:

3However, another classifier may follow -nɛ̀ ⟨ø⟩, as in 940.
(940) a. ¿Ɨɨ nê ne teéhe?
   b. ¿Ɨɨ nê nemɨ teémi?
   a.ɨ́ː-nɛ̀-ʔɛ́ tʰɛ̀ɛ 'What tree is that?'
   b.ɨ́ː-nɛ̀-mɨ̀ tʰɛ̀ː-mɨ  'What canoe (car,...) is that?'

Second, pronouns like those of table 15.5 are used to ask for the identity of one thing from among various things. These are formed from kʰɛ(ː)-‘which’, some classifier, and optionally a pluralizer: -ːkʰɯ’duIn’ or -⁽ˀ⁾hɨ ‘plural’. The classifiers used in table 15.5 are -nɛ, which refers to things in general (not specified), -mɨ, which refers to canoes, cars, airplanes and other means of transport, and -hɨ, which refers to disk-like things (including coins, pills, buttons, the earth, the sky,...).

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>thing</td>
<td>kʰɛː-nɛ̀ (keéne)</td>
<td>kʰɛː-nɛ̀-ːkʰɯ’du (kéneécu)</td>
<td>kʰɛː-nɛ̀-ˀhɨ (kénehjị)</td>
</tr>
<tr>
<td>transport</td>
<td>kʰɛː-mɨ̀ (keémɨ)</td>
<td>kʰɛː-mɨ̀-ːkʰɯ’du (kémiću)</td>
<td>kʰɛː-mɨ̀-ˀhɨ (kémihjị)</td>
</tr>
<tr>
<td>disk-like</td>
<td>kʰɛː-hɨ̀ (keéjị)</td>
<td>kʰɛː-hɨ̀-ːkʰɯ’du (kéjiću)</td>
<td>kʰɛː-hɨ̀-ˀhɨ (kéjihjị)</td>
</tr>
</tbody>
</table>

kʰɛː-nɛ̀ becomes kʰɛː-ná when used as a subject, as a predicate adjective, or as a direct object, as in 941:

(941) kʰɛː-ná ɯ́ tsʰìβá-ʔì (¿Keená ú tsiváhi?) ‘Which have you brought?'

15.3 Rhetorical questions

Sometimes a point can be made very effectively by using the form of a question, but without really expecting an answer, that is, by a RHETORICAL QUESTION. For example, a speaker could say 942 to make the point that the hearer has come without bringing something for the speaker:

(942) ¿Ɨɨnúbá ōdhuu tsívătı́roo u tsááhií?
   iː-nɛ̀-lupá ő-ʔiː-βùu tsʰìβá-tʰúː-ːpɛ̀ ʊ u
   what-⟨ø⟩-prob I-anim-goal bring-neg-frs-⟨SgM⟩ you

tʰáː-ʔiː-
   come-(t)-emph

‘Did you come without bringing me anything?!”

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Other examples of rhetorical questions are given in 943:

(943) a. ¿Muhdú?
   b. ¿Muhdúrá?
   c. ¡Muhdúráha(ja) teéne!

a. mɯ̀-²tuú  'How’s that?’
   WH-(like)-¿?

b. mɯ̀-²tuú-rá  ‘How’s that? (I expected something different)’
   WH-(like)-frs.-¿?

c. mɯ̀-²tuú-rá-ʔà(hà) tʰɛ-ː-nɛ̀  ‘That’s incredible! (Prove it!’
   WH-(like)-frs-verify that-∅
Chapter 16

Complementation

16.1 General comments about subordination

Bora subordinate clauses are either adverbial or nominal. If nominal, they may be followed by a case marker. See figure 16.1.

Adverbial subordinate clauses are discussed in chapter 17. There are various types of nominal subordinate clauses. Relative clauses are discussed in chapter 18. Complements are dealt with here in section 16.2: subject complements in section 16.2.1 and object complements in section 16.2.2.

The first syllable of the verb of a subordinate clause bears high tone, represented here by $S$ over the vowel. For example, compare 944a, a subordinate clause headed by a verb with the initial high tone, with 944b,
a nonfinite verb with the low nonfinite tone on the antepenult. Note that the meanings differ in the expected way.

(944) a. Ó ájtyumí áǐivyeja.
   b. Ó ájtyumí aiivyeja.

\\[\text{óáˣtʲʰɯ̀mɨ́-ˀ} \quad \begin{cases} \text{a. sɨ:-βʲɛ̀ \quad -hà} \\ \text{b. nɨ:-βʲɛ̀ \quad \langle \text{shelter} \rangle} \end{cases} \quad \text{‘I saw a} \quad \begin{cases} \text{a. house burning.’} \\ \text{b. burned house.’} \end{cases} \]

A subordinate clauses has an overt subject. (There are rare cases in which there is no overt subject.) It must be a preverbal subject. It may be a personal pronoun, such as ti-pʲɛ̀ (that-⟨SgM⟩) in 994. It may be a bound adjectival stem followed by a classifier, such as tsʰà-ːtʰɛ̀ (one-AnPl) in 981. It may be a simple noun phrase, such as tsʰímɛ̀nɛ̀ (child) ‘child’ in 737. It may be a genitive phrase, such as í ő:ʔi-ːpʲɛ̀ (self dog-⟨SgM⟩) as in 953. It may be a relative clause headed by a classifier, such as ɛ̀ˀ-tɯ́-βá-ːnɛ̀-ːtʃɛ̀ (that-⟨like⟩-rpt-rem say-⟨SgF⟩-only) ‘she who said like that’ in 688. Most frequently it is a pronominal proclitic: ò ‘I’, ɯ ‘you’, mɛ ‘SAP’, or the anaphor i ‘self’,\(^1\) which generally refers to an element of the subordinate clause, as in 982 in which i refers to the subject of the main clause.\(^2\) Further examples follow:

(945) Ó ájtyumí u áwácunúne.

\\[\text{óáˣtʲʰɯ̀mɨ́-ˀ} \quad \begin{cases} \text{[ù ñ akpákʰunú ]-nɛ̀ \quad ‘I saw you yawn.’} \\ \text{I see-⟨t⟩ \quad you yawn \quad -⟨ø⟩} \end{cases} \]

(946) U ááhɨévetehajchíí o imíllé uma o pééneé.

\\[\begin{array}{l} \text{[ù ʃːʔɪβɛ̀-tʰɛ́ ]-ʔaːʔɪhí: \quad ó imítfɛ̀-} \\ \text{you visit-go.do \quad -if \quad I want-⟨t⟩ \quad you-with I go \quad -⟨ø⟩} \end{array} \]

‘If you go visiting, I want to go with you.’

(947) Ó aahɨéveté u méénújá pañévu

\\[\begin{array}{l} \text{ó aːʔɪβɛ̀-tʰɛ́-} \\ \text{I visit-go.do-⟨t⟩ \quad you make \quad -⟨shelter⟩ \quad inside \quad -goal} \end{array} \]

‘I’m going to visit inside the house you made.’

The structure of 947 is given in figure 16.2:

\(^1\)“Anaphor” in the sense that it is generally bound within the domain of the closest accessible subject. See section 8.3 for discussion.

\(^2\)Compare the pronominal tiːpʲɛ̀ in 229, page 131.
16.2 Complements

Generally a classifier following a subordinate verb forms a relative clause referring to a being or object of the type indicated by the classifier; see chapter 18. In this section we consider subordinate clauses in which the classifier following the verb is -nɛ ⟨ø⟩ (‘thing’). These are COMPLEMENTS, and may function as the subject of a sentence (16.2.1) or as direct objects (16.2.2).

Some subordinate clauses, such as that in 948, are ambiguous between a complement and a relative clause. This comes about because the maximally unspecified classifier -nɛ ⟨ø⟩ may refer either to a object or to an event, as discussed in section 16.3.

(948) Ó ájtyumí dibye májchone.

ó átʃʰúmí [ti-pʰè ʃʰò-nè
I see-⟨t⟩ that-⟨SgM⟩ eat ⟨ø⟩
‘I saw that he ate.’ (event) or ‘I saw that which he ate.’ (thing)
16.2.1 Subject complements

The subject of a sentence may be a subordinate clause. For example, in 949 the subject is tì:p’h p’h:ɛːnɛː: ‘that he goes’, ìːt’áts’hó(7) ‘sad’ is a predicate adjective, and the copula is implicit:

(949) ñhdátsó diibye pééneé.

ìːt’áts’hó(7) [tì-p’h p’hɛː:-]nɛː: ‘It is sad that he goes.’

sad that-⟨SgM⟩ go -⟨∅⟩

16.2.2 Object complements

The following verbs (among many others) take object complements: a’t’h:umi ‘see’, ìːt’h: ‘look’, tʃɛːpo ‘hear’, ìmìʧɛ ‘want’, p’h:iβ’hɛt’hɛ ‘be able’, and kpa:hak’hu ‘know’. The object complement usually follows the complement-taking verb, but it may also precede it.

The verb of the complement always bears a high tone on the first syllable and is always followed by -⟨∅⟩ne ⟨∅⟩. -⟨∅⟩ne does not impose its -⟨∅⟩ on a monosyllabic or bisyllabic verb because the initial syllable must bear high tone. Further, the tones of #…-⟨∅⟩ne ⟨∅⟩ do not override the tones imposed by, for example, a preceding -⟨∅⟩tu ‘like’ or -⟨∅⟩iɲu ‘go after doing’.

We now present various examples. Note that in 950a the subject of the complement, which is coreferential to the subject of the main clause, is a pronoun; it is not—as might be expected—an anaphor. By contrast, in 951, in which the subject of the complement is third person, the anaphor i ‘self’ is used.

(950) ò imìʧɛ́-ˀł

I want-⟨t⟩ [a. ð I

p’hɛː:-]nɛː

b. ü you

go -⟨∅⟩

‘I want to go.’

a. ò imíllé o pééneé.

‘I want you to go.’

b. ò imíllé u pééneé.

‘Well, he does not want to go.’

(951) Muurá tsá diibye ímíllétu ipyééneé.

mɯːɾá tʃʰa’ ti-p’h ìmìʧɛ-t’h:tu [i p’hɛː:-]nɛː

confirm not that-⟨SgM⟩ want-neg self go -⟨∅⟩

‘Well, he does not want to go.’

The sentence in 952a (which contains a relative clause) is embedded under a sensory verb in 952b:

3Relative clauses and some sensory verb complements are followed by a different classifier; for example, see 956 and example 80, page 68.
16.2. COMPLEMENTS

(952) a. Ú méénuja áiivyéhi.
   b. Ó ájtyumí ú méénuja áiivyéne.

   a. [ú mɛ:nù]-hà ái:-βé-ʔì
      you build -⟨shelter⟩ burn-sln-⟨t⟩

   b. ó átʰùmí⁻² [ú mɛ:nù]-hà ái:-βé ]-nè
      I saw-⟨t⟩ you build -⟨shelter⟩ burn-sln -⟨ø⟩

   a. ‘The house [that you built] burned.’
   b. ‘I saw [[the house that you built] burning].’

Example 953 illustrates a factive complement; 954, an object complement to a sensory verb; and 955, a complement to pʰì:βètʰɛ⁻² ‘be able’. Example 367, page 178, has an object complement to a phasal verb.

(953) Jóaa waajácu íohiíbye dsʃjívène.

   hóáà kpà:hákʰú⁻² [ɪ ɔ:ʔɪ:-pɛ tǝʃiβɛ ]-nè
   John knows-⟨t⟩ self dog-⟨SgM⟩ die -⟨ø⟩

   ‘John knows that his dog died.’

(954) Ó ájtumí Jóaa wákímyeíñe.

   ó átʰùmí⁻² [hóáà kpâ:kʰɪmɛ ]-nè ‘I saw John working.’
   I saw-⟨t⟩ John work -⟨ø⟩

(955) ¿A ú piivyéte cújúwajúúha u méénune?

   à ú pʰì:βètʰɛ⁻² [kʰúhúkà-húʔa ú mɛ:nù ]-nè
   yh you be.able-⟨t⟩ fire-⟨charcoal⟩ you make -⟨ø⟩

   ‘Are you able to make charcoal?’

Example 956 contrasts a sensory verb complement in 956a with relative clauses in 956b and c. In 956b tʰɛ-tʰì ‘that child’ is the subject of the subordinate clause, whereas in 956c it is the direct object of the main clause, with the relative clause appositive to it.

(956) a. Ó ájtyumí tetsí wájpí hallúrí íjcyane.
   b. Ó ájtyumí tetsí wájpí hallúri íjcyatsike.
   c. Ó ájtyumí tetsike wájpí hallúri íjcyatsike.
CHAPTER 16. COMPLEMENTATION

Ó átʰ⁻hùmí-?
I see-⟨t⟩

\[
\begin{align*}
\text{a. } & [tʰ-ʦʰ \text{ kpá}^r \text{pʰ } \text{ G } \text{ a}^f \text{ú }-r \text{ i } \text{ S } \text{ kʰ } \text{à } ]-nɛ̀ \\
& \text{ that-⟨child⟩ man on.top-oblIn be-⟨Ø⟩}
\end{align*}
\]

\[
\begin{align*}
\text{b. } & [tʰ-ʦʰ \text{ kpá}^r \text{pʰ } \text{ G } \text{ a}^f \text{ú }-r \text{ i } \text{ S } \text{ kʰ } \text{à } ]-tʰ \text{-kʰ } \text{è}
\end{align*}
\]

\[
\begin{align*}
\text{c. } & \text{ tʰ-ʦʰ-kʰ } \text{ S } \text{ i } \text{ kʰ } \text{è}
\end{align*}
\]

\[
\begin{align*}
\text{that-⟨child⟩-objAn man on.top-oblIn be -⟨child⟩-objAn}
\end{align*}
\]

\[
\begin{align*}
\text{a. } & \text{‘I saw that the child was on top of the man.’}
\text{b,c. } & \text{‘I saw the child that was on top of the man.’}
\end{align*}
\]

Compare the sensory verb complement in 957 to the relative clauses in 999 and 1000, page 382.

(957) Ó ájtyumí teja áiivyéne

Ó átʰ⁻hùmí-? [tʰ-ʦʰ-ʰa əi-βɛ́ ]-nɛ̀
I see-⟨t⟩ that-⟨shelter⟩ burn-sIn -⟨Ø⟩

‘I saw that house burning.’ or ‘I saw that that house was burning.’

Example 958 has a sensory verb complement within which there is a relative clause.

(958) Ó ájtyumí oohííbyé oke ḥdoobe dsfínene bájú pañe.

Ó átʰ⁻hùmí-? [ [ oː˧ːfiː-ːpʰɛ́ ȯ-kʰɛ́ ]-tːo ]-ːpɛ̀
I see-⟨t⟩ jaguar-⟨SgM⟩ I-objAn bite -⟨SgM⟩

ʦːínɛ̀]-nɛ̀ pāhû́ pʰˈanɛ́
run-⟨Ø⟩ jungle inside

‘I saw the jaguar that bit me running in the jungle.’ (The jaguar was running in the jungle—not I.)

The structure of the object complement is given in figure 16.3.\footnote{The phrase pāhû́ pʰˈanɛ́ ‘in the jungle’ is interpreted as a modifier of tsːínɛ̀ ‘run’, as indicated by the coindexed null ʋ.}

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Example 959 begins “I was gladdend” (not included in 959), followed by an adverbial clause of the sort discussed in section 17.4.2. The verb of this clause is “tell,” which has an object complement expressing what was told. (The subject of the complement clause is the noun phrase “those to whom I taught the truth.”) The structure of 959 is given in figure 16.4:

(959) …ɨ́mɨáájú o úwaabómé ímí úraavyéné oke ditye úúbálléneri.

‘(I was gladdened when) they told me that those to whom I taught the truth are following well.’
An object complement may be an embedded content question, as in the subordinate clause beginning with mɯ́-ːpɛ̀-kʰɛ́ ‘whom’ in 960 and with mɯ́-ʔà ‘who’ in 961. Embedded alternative questions are expressed using a conditional clause, as in 973.

(960) Tsá o wáájácutú múúbeké u tsívane.

\[\text{ts}^{h} \text{á}^{h} \text{ú} \text{kpá:hákʰùr-tʰú} [\text{mú}:pè-kʰɛ́ ū \text{ts}^{h} \text{βà }] \text{-nè}\]

not I know-neg who-(SgM)-objAn you bring -⟨φ⟩

‘I do not know whom (SgM) you are bringing.’

(961) Tsá o wáájácutú múha tsááneé.

\[\text{ts}^{h} \text{á}^{h} \text{ú} \text{kpá:hákʰùr-tʰú} [\text{mú}:ʔà \text{ts}^{h} \text{β}:] \text{-nè} \]

not I know-neg WH-PL come -⟨φ⟩

‘I do not know who (or what animals) come.’

16.3 -ne ⟨φ⟩ versus ⟨event⟩

Three suffixes have the segmental shape /-ne/. One, glossed ⟨n⟩, follows \(-[-tʰu (\text{-tu}) ‘negative’; see section 13.2. The other two are glossed ⟨φ⟩ and ⟨event⟩. This section deals with the contrast between these two.

⟨φ⟩ represents a thing, that is, an inanimate object that typically persists over time (and can be localized in space). By contrast, an event typically
begins at some time, continues for a while, and then ends; that is, events do not typically have the time stability of objects. Both -NE ⟨ø⟩ and -NE ⟨event⟩ are used following subordinate verbs, so the verb’s initial syllable bears high tone. However, the former imposes a low tone on its host’s penult while the latter does not:

\[
\begin{align*}
\text{#}^h_{\Omega} \ldots \text{øone} & \quad \langle \text{ø} \rangle \text{ (thing)} \\
\text{#}^h_{\Omega} \ldots \text{øone} & \quad \langle \text{event} \rangle
\end{align*}
\]

This difference is visible only on verbs that have three or more syllables, as in 962, in which the tone of the verb’s penult (/pa/) correlates with whether the clause bearing -NE refers to an object (962a) or an event (962b):

(962)a. Iímíbajchóné tsajtyéébe.

b. Teene iímíbájchóne tsajtyéébe.

\[
\begin{align*}
\text{a.} & \quad \text{í} \quad \text{símpá}^{\text{h}}_{\Omega}^\text{ø-NE} \\
& \quad \text{self fix-} \langle \text{ø} \rangle  \\
\text{b.} & \quad \text{t}^{\text{h}}_{\text{ø}} \text{-NE} \quad \text{í} \quad \text{símpá}^{\text{h}}_{\Omega}^\text{ø-NE} \\
& \quad \text{that-} \langle \text{ø} \rangle \text{ self fix-} \langle \text{event} \rangle  \\
& \quad \text{t}^\text{h}_{\text{ø}}^{\text{h}} \text{xt}^\text{h}_{\text{ø}} \text{-pɛ} \\
& \quad \text{take-} \langle \text{SgM} \rangle
\end{align*}
\]

a. ‘He carried off the thing that he fixed.’

b. ‘After having fixed it, he carried (it) off.’

Both types of -NE are present in mëkʰβʰúxtsʰ’ónè mësímpáβjɛ́nɛ in figure 16.5; this is a subordinate clause which has a subordinate adverbial clause within it: The adverbial clause bears -NE ⟨event⟩ while the clause in which it is embedded bears -NE ⟨ø⟩. (The tone of the proclitics is explained in section 3.12.2, page 93.)

---

5The distinction corresponds closely to what Langacker calls objects and interactions; he writes (Langacker 1991:183):

Conceptually, objects and interactions present a maximal contrast, having opposite values for such properties as domain of instantiation (space vs. time), essential constituent (substance vs. energy transfer), and the possibility of conceptualizing one independently of the other (autonomous vs. dependent). Physical objects and energetic interactions provide the respective prototypes for the noun and verb categories, which likewise represent a polar opposition among the basic grammatical classes.

6The crucial syllable is the host’s penult, which must not be the initial syllable because for both suffixes the host’s initial syllable bears the subordination high tone.

7This example is taken from (Thiesen et al. 1982).
me cáhcújtsó believe me ímíba:vyé fix
| | : : | | : : |
| | : : .-ne <event> | | : L___._né <Ø>
| : H H : | : H : H : DHT

me cáhcújtsó-ne me ímíba:vyé-né
SAP believe-<event> SAP fix-<Ø>

‘...that you be put right after having believed’

Figure 16.5 TD: mecáhcújtsóne, meímíba:vyéné

To this point we have not discussed -nɛ’s tonal properties. -nɛ ⟨event⟩ seems to (1) impose a high tone on the host’s initial syllable and (2) delink low tones between itself and the initial syllable, thereby making them high: #ʰ. However, it is not necessary to specify that -nɛ imposes the initial high tone provided we recognize that the main verbs of all subordinate clauses bear high tones on their first syllables, as indicated by #ʰ ‘subordinate’ in the tone derivation of i kpá:hàkʰú-húkʰó:-nɛ in figure 16.6. Further, note that the low tone borne by -juco (ː) ‘now’ is delinked but not the 1 that it imposes on the host’s penult. (Unfortunately, at this point we can not say which low tones -nɛ ⟨event⟩ fails to delink.)

i wa:jacu to know
| | |
| | L___._juco: now
| : : L : lexical
| : : |
| H : : | : subordinate
| : : = .-ne <event>
| : : : : : : |
| : : : : L FDLT
| : : H H H : DHT
L : : : : proclitic tone

i wá:ja:cu-júcó:-ne ‘after knowing’
self know-now-<event>

Figure 16.6 TD: delinking by ⟨event⟩: i wá:jacújúcó:ne

To this point we have characterized the difference between ⟨Ø⟩ and ⟨event⟩ as semantic. But consider 963:
(963) a. O dóóne ú ájtyumîhi.
   b. O dóóne o péjucóóhi.
   c. Idóóne péjúcoóbe.

   a. [ò ñø]:  )nè  átʰúmí-ʔì. ‘You saw me eating (meat).’
      I eat -⟨ø⟩ you see-⟨t⟩

   b. [ò ñø]:  )nè  pʰɛ-húkʰó-ʔì ‘Having eaten (meat),
      I eat -⟨event⟩ I go-now-⟨t⟩ I go now.’

   c. [ì ñø]:  pʰɛ-húkʰó-ːpɛ̀ ‘Having eaten (meat),
      self eat -⟨event⟩ go-now-⟨SgM⟩ he goes now.’

Is there any sense in which the sensory verb complement in 963a is less an event than the adverbial clauses in 963b and c? (Here tone does not help because the verb is too short.) The generalization seems to be this: When a subordinate clause is headed by -nɛ and is a direct object, then this -nɛ is -lοo nɛ ⟨ø⟩. This—we assume—is the result of subcategorization; that is, verbs like aᵗʰúmî ‘see’ in 963a subcategorize for a complement headed by -lοo nɛ ⟨ø⟩. If this is correct, the tone difference is due to a syntactic condition, not a semantic difference.

Returning now to the -nɛ ⟨n⟩ that follows -lᵗʰu ‘negative’ (mentioned at the very start of this section), it may be desirable to identify this with -lοo nɛ ⟨ø⟩. There are two reasons. First, the tone is consistent; indeed the l imposed by -tʰu may actually be the l imposed by -lοo nɛ ⟨ø⟩. Second, this is consistent with the suggestion that negative clauses are subordinate clauses.

---

8 The following, in which the first person is indicated by an overt pronoun in the subordinate clause and by a subject classifier in the main clause, is not acceptable:

*[ò ñø]:  pʰɛ-húkʰó-ːpɛ̀ ‘Having eaten (meat), I go now.’
I eat -⟨event⟩ go-now-⟨SgM⟩

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Chapter 17

Adverbal Clauses

A subordinate clause may function as an adverb of manner, time, place, condition, purpose, and so forth, just as the adverbs discussed in section 5.12. The first syllable of a verb of an adverbal clause bears high tone; see section 3.12.1.

17.1 Purpose clauses

Adverbal clauses with -(kʰi) ‘purpose’ indicate the purpose for the event indicated by the main clause. Utterance finally -(kʰi) is used; see examples 964a, 965, and 966. Utterance medially /-kʰi/ is usually omitted, but even when the segments are absent, the host’s final syllable bears the low tone imposed by -(kʰi), and the host’s penult bears high tone, as though /-kʰi/ were present; see examples 964b and 967.

(964) a. Peeme ihjyávú icyúwaki.
   b. Peeme icyúwa ihjyávu.

\[
\begin{align*}
\text{pʰɛ̀ː-mɛ̀} & \quad \text{gō-⟨AnPl⟩} \\
\text{a. i} \overset{6}{\text{i}} \ h^{á}-\betaû & \quad \overset{1}{i} \ k^{ih-\text{u}k-p\text{a}-k^{h-i}} \\
\quad \text{self house-goal} & \quad \text{self sleep-pur}
\end{align*}
\]

a,b. ‘They went to their house to sleep.’

\footnote{If an additional syllable follows the host, the low tones on the host’s penultimate and final syllables violate the *LLX constraint.}
(965) O péé tahjya o ímíbájchoki.
\[o ʰɛːˈɛ-ː [tʰ ʰ ʰ a ʰ ʰ a ʰ ʰ ʰ ̩ ʰ ʰ ]-kʰì \] ‘I go to fix
my house I fix -pur my house.’

(966) Mááhóvu oke daacu o májchoki.
\[máːʔó-βɯ̀ o-kʰɛ̀ t-àːkʰɯ̀ [òm ʰ a ʰ ʰ ʰ ̩ ʰ ʰ ]-kʰì \] cassava-goal I-objAn youImp-give I eat -pur
‘Give me some cassava so I can eat it.’

(967) Tahjya o ímíbájcho o pééhi.
\[[tʰ ʰ ʰ a ʰ ʰ a ʰ ʰ ʰ ̩ ʰ ʰ ] o ímípá ʰ ʰ ʰ ̩ ʰ ʰ -ʔì \] ‘I go to fix my house.’
my house I fix-pur I go-

In 968a \(nɛ́ˀkʰò-kʰì \) bears the expected tones: high on the root’s initial syllable and low preceding L L kʰì ‘purpose’. In 968b the initial syllable of \(nɛ́ˀkʰò-pè \) is high because of the L L imposed by -L tʰɛ ‘go to do’ on the second syllable. In 968c, the first syllable of \(nɛ́ˀkʰò-βɯ̀ \) bears high tone because of the genitive low tone docked on the modifier’s final syllable.

(968) a. Peebe úméhecóóne iñehcoki.
\[pʰɛ̀-ːpɛ̀ [ɯ́mɛ́-ʔɛ̀-kʰóː-nɛ́ ɨ ɲɛ́ˀkʰò ]-kʰì \] go-⟨SgM⟩ tree-⟨tree⟩-⟨pole⟩-pl self hunting -pur

b. Úméhecóóne ņehcotéébe.
\[[úmɛ́-ʔɛ̀-kʰó-ːnɛ́ ɲɛ́ˀkʰò ]-tʰɛ́-ːpɛ̀ \] tree-⟨tree⟩-⟨pole⟩-pl hunting -go.do-⟨SgM⟩

c. Peebe úméhecóóne ņehcovu.
\[pʰɛ̀-ːpɛ̀ [úmɛ́-ʔɛ̀-kʰó-ːnɛ́ nɛ́ˀkʰò ]-βɯ̀ \] go-⟨SgM⟩ tree-⟨tree⟩-⟨pole⟩-pl hunting -goal

a. ‘He went to hunt for poles.’
b. ‘He went to hunt poles.’
c. ‘He went to the hunting of poles.’

The imperative verbs maho ‘Let’s (dual) go!’ and mɛʦʰɯ ‘Let’s (plural) go!’ take purpose complements. (See section 14.3.3 for further discussion.) For example:

(969) Métsu memájchoté(ki).
\[mɛ́ʦʰɯ̀ [mɛ̀ máᵗʧʰò ]-tʰɛ́-(kʰì) \] ‘Let’s go eat.’
let’s SAP eat -go.do-pur

In 969 the high tone preceding L L kʰì is due to the low tone imposed by L L tʰɛ ‘go to do’; it blocks the L of -L kʰì because its docking would violate ©2012 SIL International
the *Llx constraint. Likewise, in 970, the high tone preceding - CVkʰi is due to the lexically marked low of kpʰimɛi.

(970) Peebe iúmihévú iwákimyeíki.

\[ \text{pʰɛː-ːpɛ̞ } \text{i } \text{úmɨʔɛ-βú } \text{[i kpákʰímɛkʰi]} \text{ go-(SgM) self field-goal self work -pur} \]

‘He is going to his field to work.’

17.2 Conditional adverbial clauses

There are two types of conditional clauses: “normal” conditionals (17.2.1) and counterfactual conditionals (17.2.2).

17.2.1 “Normal” conditional clauses

“Normal” conditional adverbial clauses are formed with -ʔàhʧʰíː(hʲɯ̀) (-hajchíjyu) ‘if’. These indicate that the event of the main clause depends on that of the subordinate clause. Sentence finally -ʔàˣʧʰíːhʲɯ̀(-hajchíjyu) is used, as in 971, and sentence medially -ʔàˣʧʰíː(-hajchí) is used, as in 972.²

(971) Ó peé u ímilléhajchíjyu.

\[ \text{ó pʰɛː-ɛ́-ʔì } \text{[ɯ̀ Sımíʧɛ́]-ʔàˣʧʰíːhʲɯ̀} \text{ ‘I will go if you wish.’} \]

(972) U ímilléhajchí úúma ó peéhi.

\[ \text{[uù Símítʃɛ́]-ʔàˣʧʰi: úú-mà } \text{ pʰɛː-ɛ́-ʔì } \text{ ‘If you wish, I will you want -if you-with I go-fut-(t) go with you.’} \]

Embedded alternative questions are expressed using -ʔahtʃʰi:hjú, as in 973:

²A fuller version of 972 follows:

\[ \text{U ímilléhajchí úúma ó peé dǐhjyávú memájchoki.} \]

\[ \text{[uù Símítʃɛ́]-ʔàˣʧʰi: úú-mà } \text{ pʰɛː-ɛ́-ʔì } \text{[tʃʰ S’há]-bú you want -if you-with I go-fut-(t) your house -goal} \]

\[ \text{[mɛː mSəˣʧʰò]-kʰi SAP eat -pur} \text{ ‘If you wish, I will go with you to your house to eat.’} \]
17.2.2 Counterfactual conditional clauses

Counterfactual conditional clauses are formed with -kʰ⁽ʲ⁾a (-ca) ‘if (contrary-to-fact)’ (CF). Their underlying assumptions are: (1) the truth of the main clause depends crucially on the truth of the conditional clause, (2) the conditional clause is false, and (3) therefore the main clause is false.

The verb of the main clause always bears -i ‘future’ and -ra ~ -ro ‘frustrative, contraexpectation’. For example:

(974) U májchoca tsúúca ú tsɨ ́ jpanúiyáhi.
[ɯ̀ m Saˣʧʰò]-kʰà ʦʰɯ́ːkʰàɯ ́ ʦʰɨ́ˣpʰànɯ́-ì-já-ʔì
‘If you had eaten, you would now be strong.’

(975) Teene u májchótucu tsá u chémétyuró(ne).
[tʰɛ̀ː-nɛ̀ ɯ̀ m Saˣʧʰó-tʰɯ̀]-kʰà
that- ⟨ø⟩ you eat-neg -CF
ʦʰراع- u ʧʰémɛ́-í-tʰɯ́-ɾó-⟨nɛ̀⟩
not you be.ill-fut-neg-frs- ⟨n⟩
‘If you had not eaten that, you would not have taken ill.’

(976) ¿Aca iímútucu meke pɨá ámbójóyóne?
à-kʰà [i ʾ:mú-tʰùú ]-kʰà
ques-doubt self be.savory-neg -CF
mɛ̀-kʰè pʰáːpó-ì-jó-⟨nɛ̀⟩
SAP-objAn help-fut-frs- ⟨ø⟩
‘If it were not savory, would it help us?’

Note that the order of the main and subordinate clauses is reversed in 977:

---

3This is generally a causal dependence.

4This requirement—that the main verb bear both the future and the frustrative (contraexpectation) suffixes—negates the future possibility of the event of the main clause, thereby giving the counterfactual meaning.
Ámuha muurá tsá oke mecáhcújtsóityuró méénúráityúronéhjí o méénuhíjcyátuca.

ámũ̀ʔàmɯ̀ːɾáˀ ʦʰ aˀò-kʰɛ̀ mɛ̀ kʰáˀkʰɯ́ˣʦʰó-í-tʰù-h-ró youPl confirm not I-objAn SAP believe-fut-neg-frs

[𝑚ɛːnɯ́-ɾá-í-tʰù-ró-nɛ́-ˀhɨ́òm do-frs-fut-neg-frs-⟨ø⟩-pl I do-sub be-neg -CF
‘If I had not done those unexpected things, you would not have believed me.’

17.3 Temporal adverbial clauses

Temporal adverbial clauses are formed by adding one of the following directly after the verb: -kʰoːkʰa (⟨-cooca⟩) ‘when’, -naa(ːkʰa) (⟨-náaáca⟩) ‘while’, -ihʲɯ (⟨-ijyu⟩) ⟨time⟩, -ne (⟨-ne⟩) ⟨event⟩.

-kʰoːkʰa ‘when’ and -ihʲɯ ⟨time⟩ indicate that the time of the main clause must wait for the completion of the event indicated by the subordinate clause. For example, in 978, their going to their house will happen only after they come:

(978) Ditye tsácooca peeímyé ihjyávu.

‘When they come, they will go to their house.’

(979) Dííbyeke o ájtyúmíijyu dííbyema ó ihjyúvaáhi.

[tí-pʲɛ̀-kʰɛ̀ ő aʰᵗʰùmí]-ih’hù tí-pʲɛ̀-mà that-⟨SgM⟩-objAn I see- ⟨time⟩ that-⟨SgM⟩-with

ó iʰ’hùβà-á-ʔì I speak-fut-⟨t⟩
‘When I see him, I will speak to him.’

-naa(ːkʰa) (⟨-náaáca⟩) ‘while’ indicates that the event of the main clause happened during the time that the event of the subordinate clause was ongoing. Sentence finally -naa(ːkʰa) (⟨-náaáca⟩) is used, as in 980, and sentence medially -naa is used, as in 981.
(980) Tsaate ɨɨcú tsijye ádónáaáca.
\[tsʰà-ːtʰɛ̀ ɨ̀ːkʰɯ́-ˀ \text{one-⟨AnPl⟩ play-⟨t⟩ other-⟨AnPl⟩ drink -while} \]
‘Some play while others drink.’

(981) Tsaate májchónáa tsijye ɨɨcúhi.
\[tsʰà-ːtʰɛ̀ maˣʧʰó-ː-nɛ́ \text{one-AnPl eat -while other-⟨AnPl⟩ play-⟨t⟩} \]
‘While some eat, others play.’

-ne ⟨event⟩ may refer to time, indicating that the time of the main clause follows that of the subordinate clause. A case marker is not required, as in 982. 5

(982) \[i \text{maˣʧʰó-nɛ́ } pʰɛ́-ːpɛ́ (Imájchóne peébe.) ‘He went after self eat-⟨event⟩ go-⟨SgM⟩ he ate.’ \]

A case marker may follow -ne ⟨event⟩ to clarify the temporal relation. For example, -ma ‘with’ is added in 983:

(983) Aane imájchónemá péjúcoóbe.
\[àː-nɛ̀ \text{thm-⟨φ⟩ self eat -⟨event⟩-with go-now-⟨SgM⟩} \]
‘Then, in the circumstance of having eaten, he went.’

A temporal noun may follow: p³nɛ ‘after’, iʔte ‘before’ or ?aˣʧʰotʰa ‘duration’. 6 These words head a genitive construction; the modifier is the phrase (with subordinate clause) headed by -ne ⟨event⟩.

p³nɛ ‘after’ indicates that the event of the main clause follows that of the subordinate clause:

(984) O májchóne boone o péjucóóhi.
\[[o \text{maˣʧʰó-ː-nɛ́ p³nɛ́-húkʰóː-ʔì} \text{I eat -⟨event⟩ after I go-now-⟨t⟩} \]
‘After having eaten, I go now.’

Although the bracketed clause is functionally a time adverb, structurally it is a noun phrase headed by p³nɛ ‘after’, as represented in figure 17.1.

---

5In 982 both syllables of maˣʧʰo ‘eat’ bear high tones, which is characteristic of -nɛ ⟨event⟩; see section 16.3.

6There is also a classifier -ʔaˣʧʰotʰà that indicates temporal duration or spatial extension.

7The high tone on -nɛ is forced by the lexically marked tone of p³nɛ, to avoid violating the *LLX constraint.
17.4 Adverbial relative clauses

What are functionally adverbial clauses may structurally be relative clauses headed by a classifier such as ⟨event⟩, ⟨place⟩, and so forth, and possibly followed by a case marker.
CHAPTER 17. ADVERBIAL CLAUSES

17.4.1 Place

Relative clauses headed by the locative classifiers -tsʰi(ː) (-tsii ∼ -tsih ∼ -tsi) ⟨place⟩\(^8\) and -ʔɯʧɛ (-hulle) ⟨yonder⟩ may be used as locative adverbs. Examples follow:

(987) Iímílétsii jécyábe.
\[ [i símǐʧɛ]-ʦʰiː fˀkʰàː-ːpɛ 'He is in the place that self want -⟨place⟩ be-(SgM) he likes.'\]

(988) Téhulle diibye iímíbáchojécyáhulle.
\[ tʰɛ̩-ʔɯ̱ʧɛ tì-ːpʲɛ [i símipáʧʰó]-ʔɯ̱ʧɛ that-⟨yonder⟩ that-⟨SgM⟩ self fix-sub be -⟨yonder⟩ 'He is there where he always fixes things.'\]

Embedded clauses referring to place may indicate the source or goal of some motion using -β⁽ʲ⁾ɯ ‘goal’ or -tʰ⁽ʲ⁾ɯ ‘source’. Examples follow:

(989) O péé tahmɨ́ ɨ́ né o ímíbájchótsihu.
\[ ùpʰɛ̱-ˀ [tʰ Gaˀmɨːnɛ́ò Sı́mípáˣʧʰó]-ʦʰì-βɯ I go-⟨t⟩ my canoe I fix -⟨place⟩-goal 'I go to where I fix my canoe.'\]

(990) O tsáá teene o ímíbájchóhullétu.
\[ ùʦʰáː-ˀ [tʰɛ̀-nɛ̀ ò Sı́mípáˣʧʰó]-ʔɯʧɛ́-tʰɯ I come-⟨t⟩ this-⟨ø⟩ I fix -⟨yonder⟩-sou 'I come from where I have fixed this.'\]

(991) O tsáá tahmɨ́ ɨ́ né o ímíbájchótsihu.
\[ ùʦʰáː-ˀ [tʰ Gaˀmɨːnɛ́ò Sı́mípáˣʧʰó]-ʦʰì-βɯ I come-⟨t⟩ my canoe I fix -⟨place⟩-sou 'I come from where I am fixing my canoe.'\]

17.4.2 Causal adverbial clauses

-ɾi (-ɾi) ‘inanimate oblique’ may follow -nɛ ⟨event⟩ to indicate an event (action or state) that caused the event of the main clause, as in 992 and 993:

\(^8\)Note that the length of -ʦʰi(ː) ⟨place⟩ is realized as [ʔ] before -β⁽ʲ⁾ɯ ‘goal’ and -tʰ⁽ʲ⁾ɯ ‘source’, as seen in 989 and 991.
17.4. ADVERBIAL RELATIVE CLAUSES

(992) Mítyane iwákímeíñeri táñahbe pávyeenúhi.

\[\text{mít}^{ detention}\text{jʰ-à-né \text{i } \text{kipa}^{ much}\text{kʰímeĩ-}\text{lì-\text{nè-}f\text{í tʰá \text{ða}^{ self work -\text{j}}} \text{ða}^{ my sib-(SgM)}}\]

\[\text{pʰáβʲɛ̀ːnú-ʔì } \text{‘By working a lot, my brother tired.’} \text{tire-} (t)\]

(993) Mítyane iwákímeíñeri chémeébe.

\[\text{mít}^{ detention jʰ-à-né \text{i } \text{kipa}^{ much}\text{kʰímeĩ-}\text{lì-\text{nè-}f\text{í tʰá \text{ða}^{ self work -\text{j}}} \text{ða}^{ my sib-(SgM)}}\]

\[\text{ʧʰɛ́mɛ̀-ːpɛ } \text{‘He got sick by working a lot.’} \text{be.ill-} (SgM)\]

17.4.3 Comparison and manner

What is structurally a relative clause headed by -tuu (-du) ⟨like⟩ may be used as an adverbial clause indicating comparison or manner, as in 994–995:

(994) Ó imillé dibye ímillédú o íjcyane.

\[\text{ó imíʧɛ́-} (t) \text{ímíʧɛ́-tɯ́ } \text{ ödeme-\text{j} } \text{ó íkʰjào } \text{ñè I want-} (t) \text{ want -} (\text{like I be } - (\text{SgM})\]

\[\text{‘I want to be like he wants (that I be).’} \text{want-} (\text{SgM})\]

(995) O íhjyuvádu tsáh dibye íhjyuvatúne.

\[\text{ó íh’ðuβá-tɯ́ } \text{tsʰá-} (t) \text{íh’ðuβá-tʰú-nè I talk } \text{like not that-} (\text{SgM}) \text{talk-neg-} (n)\]

\[\text{‘He does not talk like I talk.’} \text{talk-} (n)\]

When one thing is compared to another, the object of comparison may be a relative clause headed by the classifier that corresponds to that object, followed by -tuu. For example, in 996 the relative clause is headed by -ha ⟨shelter⟩, followed by -tuu. (In this case -tuu functions more like a case marker than a classifier. See section 10.8 regarding comparatives.)

(996) Dibye méenujádú ó méenúiyáhi.

\[\text{íh’ðúβá-tʰú-nè } \text{íh’ðúβá-tʰú-nè } \text{íh’ðúβá-tʰú-nè I talk } \text{like not that-} (\text{SgM}) \text{talk-neg-} (n)\]

\[\text{‘I want to make a house (shirt, pants,...) like he made (but I am in some way hindered from doing so).’} \text{make-} (\text{SgM}) \text{talk-neg-} (n)\]
Chapter 18

Relative Clauses

Generally, a RELATIVE CLAUSE is a subordinate clause that modifies a noun, usually restricting the referent of that noun to those persons or things of which that clause is true. Bora has relative clauses, both restrictive and nonrestrictive (as in example 1011, page 386). Classifiers, as we shall see, play an important role in their formation.

In Bora, the initial syllable of the verb of a relative clause bears high tone. (This is true for all Bora subordinate clauses, but see the discussion with example 114.) For example, úkpáːpòːpè in the relative clauses in 997a and b bears high tone on the first syllable, as does úkpáːpónè in the subordinate clause in 997c. By contrast, the nonfinite verb úkpáːpòːpè in 997d does not bear high tone on its initial syllable; rather, it bears the nonfinite low tone that docks on the stem’s antepenult. (See also example 132, page 102, and accompanying discussion.)

   [ ø, hóáà-kʰɛ̀ ſúkpáːpò ]ːpèi tsʰáː-ʔì
   John-objAn teach -(SgM) came-(t)

b. Díibye Jóáa úwááboobe tsááhi.
   tiːpɛ̀i [ ø, hóáà ſúkpáːpò ]ːpèi tsʰáː-ʔì
   that-(SgM) John teach -(SgM) came-(t)

c. Ó ájtumí Jóáa úwaabóne.
   ó áᵗʰúmíʔ [ hóáà ſúkpáːpó ]-nè
   I see-(t) John teach -(ø)
d. Diibye uwááboobe Jóáa tsááhi.

\[\text{that-(SgM) teacher-(SgM) John came-(t)}\]

a. ‘The one who, [ø taught John] came.’
b. ‘The one whom, [John taught ø] came.’
c. ‘I see John teaching.’
d. ‘He, the teacher, John, came.’

The noun modified by a relative clause must be understandable as having some semantic relation/role with respect to the modifying clause, since this makes it possible to assess the truth of the modifying clause since it pertains to the modified noun. In many cases the modified noun is understood as the subject of the modifying clause, as illustrated in example 997a. Such “subject relatives” are discussed in section 18.2.

In other cases, the modified noun is understood as having some role other than that of the subject of the modifying clause, as illustrated in example 997b above. Such cases are discussed in section 18.3.

Note that the relative clauses of 997a and b differ from complements, like the sensory verb complement in 997c, and from nonfinite verbs as in 997d.

However, before illustrating subject and non subject relative clauses, we will discuss various structural alternatives for relative clauses.

### 18.1 The structure of relative clauses

Bora relative clauses are always verb final, and always headed by a classifier following the verb. The noun or noun phrase that—in other languages—would head the relative clause, in Bora may stand in various relationships to the modifying clause with the following classifier. Four possibilities are represented in table 18.1. (The gap in the relative clause is represented by ø. This is coindexed with the classifier head and, if present, an overt coreferential NP. The verb of the subordinate clause bears a high tone on its first syllable, represented here by an s over the verb’s initial syllable.)
18.1. THE STRUCTURE OF RELATIVE CLAUSES

Table 18.1 STR: relative clauses

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. basic relative clause</td>
<td>[NP [S...φ₁...[V φ₂...][Nclassifier₁]]]</td>
</tr>
<tr>
<td>b. apposition: NP₁ [NP [S...φ₁...[V φ₂...][Nclassifier₁]]]</td>
<td></td>
</tr>
<tr>
<td>c. head-internal or retained pronoun: [NP [S...NP₁...[V φ₂...][Nclassifier₁]]]</td>
<td></td>
</tr>
<tr>
<td>d. genitive construction: [NP [S...φ₁...[V φ₂...][Nclassifier₁]]]</td>
<td></td>
</tr>
</tbody>
</table>

Consider the noun or noun phrase that in other languages would head the relative clause.

a. In basic relative clauses there simply is no such noun phrase. For example, in 997a above, the relative clause is headed by the classifier -⁰:kʰɛ'⟨SgM⟩, which is coindexed with a gap that corresponds to the direct object of the modifying clause, but there is no overt coreferential NP.

b. Frequently the noun or noun phrase that in other languages would head the relative clause precedes the relative clause. The relative clause is appositive to it. These are discussed in section 18.1.1.

c. Alternatively, the coreferential noun phrase may occur within the relative clause. These are discussed in section 18.1.2.

d. Finally, the relative clause may “possess” the head, employing the genitive construction. These are discussed in section 18.1.3.

18.1.1 Appositive embedded clauses

The relative clause in 998 is appositive to ¹:oʔi:p'ékʰɛ ‘dog-objAn’:

(998) Ọ ájtumí oohíbyéke oke ɨhdoóbeke.
    ó á⁴:pʰùumíʔ [ɔːʔi:-pʰɛ ]-kʰɛ
    I see-(t) dog-⟨SgM⟩-objAn

    [ φ₁ 0-kʰɛ iʔtó ]-pɛ-kʰɛ
    I-objAn bite -⟨SgM⟩-objAn

    ‘I see the dog that bit me.’

¹Compare 998 with example 1015, page 388, in which -⁰:kʰɛ ‘objAn’ does not follow ¹:oʔi:p’ɛ ‘dog’, and thus is the subject of the relative clause.

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CHAPTER 18. RELATIVE CLAUSES

Compare the basic relative clause in 999 with the appositive relative clause in 1000:

(999) Ó ájtyumí áiívyeja.
   ó áᵗʰûmí-ʔ [o, áí:βjɛ̆ ]-hà
   I see-(t) burn-Sl -(shelter)
   ‘I saw a house that was burning.’

(1000) Ó ájtyumí tsaja jaá áiivyéne.
   ó áᵗʰûmí-ʔ tʰà-hà  A [hàá ái:βjɛ̆ ]-nè
   I see-(t) one-(shelter) house burn-Sl -(ø)
   ‘I saw a house burning.’ (lit. ‘I saw a shelter-like thing, a house that was burning.’)

In 1001, the embedded clause (‘that bit me’) modifies the singular masculine classifier that follows it:

(1001) Oohííbyé oke ĭhdoobe tsájucóóhi.
   òːʔí-ːpʲɛ́ ò-kʰɛ̀ ɨ́ˀtò-ːpɛ̀
   dog-(SgM) I-objAn bite-(SgM) come-now-(t)
   ‘The dog that bit me is coming.’

Example 1001 is structurally ambiguous between the following alternatives:

1. òːʔí-ːpʲɛ́ ‘dog’ is a preverbal subject within the subordinate clause, while the classifier heads the phrase:

(1002) oohííbyé oke ĭhdoóbe ...
   [òːʔí-ːpʲɛ́ i[tʰɔːp]è -ːpɛ̀]
   ‘the dog that
   dog-(SgM) I-objAn bite -(SgM) bit me…’

Recall that a classifier subject may not co-occur with an overt, preverbal subject. (See page 129.) However, 1002 satisfies this condition because -(SgM) is not the subject of the subordinate clause, but heads the relative clause, occurring outside of that clause.

2. òːʔí-ːpʲɛ́ ‘dog’ heads the noun phrase, which is modified by an appositive, postnominal relative clause (itself headed by a classifier):

(1003) oohííbyé oke ĭhdoobe ...
   òːʔí-ːpʲɛ́, A [ô-kʰɛ̆ i[tʰɔːp]è -ːpɛ̀]
   ‘the dog that bit me…’
   dog-(SgM) I-objAn bite -(SgM)

The following is given for comparison:

òːʔí-ːpʲɛ́ ò-kʰɛ̆ i[tʰɔːp]è (Oohííbyé oke ĭhdoóhi.) ‘The dog bit me.’
dog-(SgM) I-objAn bite-(t)

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While for 1001 there seems to be no evidence in favor of one or the other of these analyses, sometimes there is evidence in the form of a second-position clitic. For example, in 1004 the remote past marker follows ôʔi:p’i ‘dog’. This strongly suggests that this noun is not within the modifying clause, but rather that it and the modifying clause are in apposition. If, however, the second-position clitic follows the clause, as in 1005, this strongly suggest that ôʔi:p’i ‘dog’ is within the modifying clause.

(1004) Oohííbyée oke ñdoobe cheméhi.

\[\text{ôʔi}:p’i \quad \text{A} \quad [\, ð-k’ë \quad ɨ’tò \, ]:pë:i \quad t’hèmè-ʔi \]

\[
\text{dog-(SgM)-rem} \quad \text{I-objAn bite} \quad -\langle\text{SgM}\rangle \text{ be.ill-(t)}
\]

‘The dog that bit me (some time ago\textsuperscript{3}) is sick.’

(1005) Oohííbye oke ñdoobée cheméhi.

\[
\text{ôʔi}:p’i \quad \text{ð-k’ë \quad ɨ’tò \, ]:pë:i \quad t’hèmè-ʔi}
\]

\[
\text{dog-(SgM)} \quad \text{I-objAn bite} \quad -\langle\text{SgM}\rangle \text{-rem be.ill-(t)}
\]

‘The dog that bit me (some time ago) is sick.’

In 1006a ts'hù:mènèk’hè ‘child (object)’ is the object of t’ha:po ‘cure’ and thus within the relative clause, but in 1006b, in which -k’hè is absent, ts’hù:mènè is the subject of the main clause:


b. [Tsíímènè] [dibye táábórotsi] dsíjvéhi.

\[
t’s'hù:mènè \begin{cases} 
\text{a. -k’hè} \\
\text{b. -ø}
\end{cases}
\]

\[
t’hà:p’ò-rò-ts’hù \quad t’síhìβè-ʔi
\]

\[
\text{that-(SgM) cure-frs-(child) die-(t)}
\]

a,b ‘The child that he treated died.’

\textsuperscript{3}Curiously, the remote past tense marked on the first constituent of 1004 applies to “biting” rather than “being sick.”
In 1007 the modified noun is tiːpɛ̀ ‘he’.4

(1007) Ááneri diibye oohííbyeke dsíjívétsoobe núcójpiivéhi.
áːnɛ̀-ɾì tìːpɛ̀ i ə [ oː; rìː-ːpɛː-kʰɛ]
that-⟨∅⟩-oblIn that-⟨SgM⟩ dog-⟨SgM⟩-objAn
tsihíβé-tsʰò ]ːpɛ̀ i núkʰóˣpʰɨ̀-βɛ ʔì
die-caus -(SgM) be.ashamed-slIn-⟨t⟩
‘The one who killed the dog became ashamed.’

Example 1008 is similar, where the indefinite pronoun tsʰàːpʰì ‘one (SgM)’ is followed by an appositive relative clause:

(1008) Íjcyaábe tsaapi Jóáa imyéme íjcyaábe.
Íʃkʲʰá-ːpɛ̀ i [np tsʰàːpʰì] be-⟨SgM⟩-rem one-⟨SgM⟩ John self name
Íʃkʲʰá-ːpɛ̀ kʰɛ̀ be-⟨SgM⟩-objAn
‘There was a man named John.’

Compare 1008 to 1009, in which two noun phrases are in apposition within a noun phrase marked for case by -kʰɛ ‘objAn’, as represented in figure 18.1.

(1009) Ó ájtumí tsaapi Jóáa imyéme íjcyaábeke.
Ó áːtʰùmí? [tsʰàːpʰì] I see-⟨t⟩ one-⟨SgM⟩ John self name
Íʃkʲʰá-ːpɛ̀ -kʰɛ̀ be-⟨SgM⟩-objAn
‘I saw one (male) whose name is John.’

4Functionally tiːpɛ̀ is a pronoun, but its internal structure is that of a noun phrase: it is a demonstrative adjective that modifies a noun.
In 1010 (below), tì:pʰè does not bear \(-\hbar kʰ\varepsilon\) ‘objAn’. This might lead one to feel that it is the subject of the subordinate clause. However, note that tì:pʰè has long vowel; if it were the subject, this should be shortened, as explained in section 8.1.1. Thus, it is not the subject, but is appositive to the relative clause, but within the scope (c-command domain) of \(-\hbar kʰ\varepsilon\) ‘objAn’:\(^5\)

[^5]: The following example is similar to 1010 but differs in that (1) the case marker on the subordinate clause is different, and (2) the main verb is transitive in 1010 but intransitive in the following:

Árónàa diibye oohíbyeke dsjívétóóbedí ídáátsovémé.
á-ró-nàa [tì:pʰè] \(\text{A}\) [òːʔí-pʰè-kʰè] thm-frs-while that-(SgM) dog-(SgM)-objAn
tóhîpʰè \(\text{S}\) \(\text{e}\) \(\text{t}\) \(\text{b}\) \(\text{h}\) \(\text{m}\) die-caus -(SgM) -anim.sou pity-sln-(AnPl)
‘But they pitied the one who killed the dog.’
(1010) Árónnā diibye oohííbyeke dsį́jívétsóóbeke ţdaatsólléme.
á-ɾó-náa [tj-ːp'ɛ̀ θm-frs-while ţhat-(SgM) dog-(SgM)-objAn
tshį́hį́βɛ́-tsʰó ]-ːpɛ̀-kʰɛ̀ ɨ́ tàːʦʰó-ʧɛ́-mɛ̀
die-caus -(SgM) pity-treat.as -(AnPl)
‘But they pitied the one who killed the dog.’

An appositive relative clause may be nonrestrictive, as in 1011:
(1011) Nānį́yɑ́ ávyeta kéémejúc’óroobe páiǰyuváré wáŋkímyéhįjcyáhi.
nānjò θ [áβʲɛ́tʰà kʰɛ:mé-hų́kʰó-ːpè uncles very.much be.old-now-frs -(SgM)
pʰà-ɪhų́ųβá-ːpɛ̀ kpákʰímêmɛ̀-ʔi kʰá-ʔị all-day-only work-sub be-(t)
‘My uncle, although he is now very old, works every day.’

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Examples 1012–1014 further illustrate appositive relative clauses in the a. sentences, each case accompanied by a nonappositive alternative in the b. sentences.\footnote{Example 327, page 165, corresponds to 1012 but with relativization into the subject rather than object.}

(1012) a. Dííbye ditye úwááboobe waajácú páneére.

b. Dííbyeke ditye úwááboobe waajácú páneére.

(1013) a. Ímí teene pááa dibye májchone.

b. Pááa dibye májchone ímí nééneé.

(1014) a. Pɨ́ pá tétsii dibye pááa májchotsíi.

b. Pááa di-bye májchotsíi pipáhre.

18.1.2 Relative clauses with an internal coreferent

A noun phrase coreferential with the head may occur within the relative clause. Sometimes this noun phrase is a noun, in which case this is similar
to the “internally-headed” relative clauses of other languages, and sometimes it is a pronoun (usually headed by the same classifier that heads the relative clause), in which case this is similar to a “pronoun retention” strategy. We will consider these two possibilities in turn.

In 1015 the clause internal argument coreferential to the head is őːʔíːpʲɛ́ ‘dog’. (Compare 998, page 381, and the discussion therewith.)

(1015) Ó ájtumɨ oohíbyé oke ɨhdóóbeke.

ó átʰůmɨ [őːʔíːpʲɛ́ i ʰtó ]ːpɛ̀-kʰɛ̀
I see-⟨t⟩ dog-⟨SgM⟩ I-objAn bite -⟨SgM⟩-objAn
‘I see the dog that bit me.’

In many cases such a clause internal argument is a pronoun, as is the case for ɛːkpà ‘that plank’ in 1016:

(1016) Oke daacu eewa ééjá lliiñe íjcyawávu.

ò-kʰɛ̀ t-àːkʰɯ̀ [ɛː-kpà A]
I-objAn youImp-give that-⟨slab⟩

[⟨ɛ́ː-há G tʃí:nə⟩ tʰkʰà ]-kpá βù
that-⟨shelter⟩ below be -(⟨slab⟩) -thm
‘Give me the plank that is under that house.’

ɛːkpà ‘that plank’ is a pronoun, and the relative clause of 1016 manifests a pronoun retention strategy. (This is an effective strategy for relativizing into difficult positions; see Keenan & Comrie (1977).) In Bora this is a very effective strategy because the “pronouns” are so specific, being formed from a pronominal root and one of over 300 classifiers.

18.1.3 Relative clauses possessing their head

Consider the noun phrase in 1017, taken from The Creator’s Daughter (sentence 51).

(1017) ...ámúhtsikyéne o wáñehjɨ́ núíyóné ijtyámú...

[⟨ɛːtʰhá-mú⟩ starch-plAn
‘...the starch with which I would have honored you with a festival...’

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18.2. RELATIVIZING INTO SUBJECTS

Here the relative clause “possesses” the following “head” in a genitive construction. This is evident from the tones: the head is trisyllabic (the pluralizer counting as part of the stem) so the genitive tone docks on the head’s initial syllable. The semantic relationship between the modifier (possessor) and the head is precisely that seen in the noun phrase [kpanCastle ʰi ʰ̚tʰá-mu] (festival starch-pl) ‘starch for a festival’, in which the head’s referent is an object (starch) used in the event indicated by the modifier (the festival).

Casting the relative clause as the modifier (possessor) in a genitive construction is reserved for cases where the “head” has an oblique relationship to the modifying clause. That is, it is not used when the “head” is the subject, the direct object, or the theme (possibly the indirect object) of the modifying clause.

18.2 Relativizing into subjects

This section deals with “subject relatives,” that is ones for which the modified noun is understood as the subject of the modifying clause. For example, consider the simple clause in 1018:

(1018) Mítyane wákímeíibye.
    mîṯʰà-nè kpâkʰímeíːpʲɛ̀ ‘He works a lot.’
    much-adv work-{SgM}

Such a clause may be embedded as a noun phrase, referring to its subject, as in 1019–1021. In each case the modified “noun” is the classifier that follows.

(1019) Mítyane wákímeíibye tsájucóóhi.
    [mîṯʰà-nè ʰ̚i kpâkʰímeíːpʲɛ̀ ]-ːpʲɛ̀ i tslib’hûkʰóː-ʔì
    much-adv work-{SgM} come-now-{t}
    ‘The one who works a lot comes now.’

(1020) Téhulle wákímyeíhíycyaabe tsááhií.
    [tʰɛ́-ʔɯ̀ʧɛ̀ ʰ̚i kpâkʰímeíːpʲɛ̀ ]-ːpʲɛ̀ i tslib’hà-ʔì-ː
    that-{yonder} work-sub be-{SgM} come-{t}-emph
    ‘The one who always works over there came.’

(1021) Oohíbyeke dsújvétsóobe tsúúca péjucóó ihjyávu.
    [ʰ̚i-ːpʲɛ̀-kʰè tsʰíʃβé-tsʰò ]-ːpʲɛ̀ i
    dog-{SgM}-objAn die-caus-{SgM}
 already go-now-⟨t⟩ self house-goal
‘The one who killed the dog has now gone to his house.’

In both 1022 and 1023 the relative clause is the direct object of the main clause (but nonetheless relativizes into the subject):

(1022) Mítyane wákímeíbyeke ó ahdóhi.
[ø i mítʰà-nè kpakʰímẽí ]ːpʰɛ⁻kʰɛː ő áʔtóːʔɬí
much-adv work −⟨SgM⟩-obj An I pay-⟨t⟩
‘I paid the man who worked a lot.’

(1023) Oohíbyeke dsį́jvétsóóbeke ó uhbáhi.
[ø i ʊʔíːpʲɛ⁻kʰɛː ʦʰóːpɛː ]ːpɛː-kiːɛː ő ʊʔpáːʔɬí
dog-⟨SgM⟩-obj An I upbraid-⟨t⟩
‘I upbraided the one who killed the dog.’

In 1024, the embedded clause is the benefactee (in a rather extended sense) of the main clause. (Compare 1023.)

(1024) Oohíbyeke dsį́jvétsóóbedítu tsijte ihjyúváhi.
[ø i oʔiːpʰɛ⁻kʰɛː ʦʰíβɛːtsʰóː ]ːpɛː-tiːtʰu
dog-⟨SgM⟩-obj An die-cause −⟨SgM⟩-anim-sou
ʦʰiːtʰɛː ʔɬíhúβáːʔɬí
other-⟨AnPl⟩ speak-⟨t⟩
‘Others spoke about the one who killed the dog.’

In 1025, the embedded clause is a “co-subject” of the main clause. Note that the full pronoun in the relative clause is coreferential with the sentence’s subject.7

(1025) Dííbyema wákímeíbye-péjúcoóbe.
[ø i tʃ⁻pʰɛːkʰ⁻mà kpakʰímẽí ]ːpʰɛ⁻kʰ⁻mà pʰɛ⁻huːkʰdːpʰɛː k
that-⟨SgM⟩-with work −⟨SgM⟩-with go-now−⟨SgM⟩
‘He went with the one, who works with him.’

7 There are sufficient structural barriers between the subject and the pronoun (both indexed k) so that the former may bind the latter without violating the principle that a pronoun must be free in its governing category.
18.3. RELATIVIZING INTO NONSUBJECT POSITIONS

The relative clauses above have been “into” the subject position, that is, the head is understood to be coreferential with the subject of the modifying clause. However, relativization is not limited to such cases. In 1028

Figure 18.3 STR: Dííbyema wákímeíbyema péjúcoóbe.

Other examples of relativization into the subject follow.

(1026) Diibye pááa májchoobe péjucóó.

tí-ːpʲɛ̀  A [ øi  pʰáːà mɛ́ ːɡʰò ]-ːpɛ́  pʰé-ːhúkʰóː-ːʔi
that-(SgM) bread eat -(SgM) go-now-(t)
‘He that ate the bread has gone.’

(1027) Tsɨ́ímeke muha meúwaóbómé tsá tsínéhjíri meíjcyatúne.

[tʰiːːmɛ́-kʰɛ̀ mɯ́ʔàmɛ̀ -u kpàːpó ]-mɛ́  tʰaˀ children-objAnwe SAPteach -⟨AnPl⟩ not

‘We who teach children do not get involved in other things.’

18.3 Relativizing into nonsubject positions
relativization is into the direct object. Compare this to 1029, in which relativization is into the subject.

(1028) Táñahbe májchótsoobe péjucóóhi.
\[ tʰá \; G \; ɲa^2pè \; \emptyset, \; ma^s[tʃʰ]-tsʰوفق \; ]:-pɛᵢ, \; pʰɛ-hùukʰó-ʔɪ \]
my \; sib-(SgM) \; eat-caus \; -\langle SgM \rangle \; go-now-\langle t \rangle
‘The one (SgM) that my brother fed has now gone.’

(1029) Táñáhbeke májchótsoobe péjucóóhi.
\[ \emptyset, \; tʰá \; G \; ɲa^2pè-ʰɛk \; ma^s[tʃʰ]-tsʰوفق \; ]:-pɛᵢ \]
my \; sib-(SgM)-objetAn eat-caus \; -\langle SgM \rangle
\[ pʰɛ-ʰɛkʰó-ʔɪ \]
go-now-\langle t \rangle
‘The one (SgM) that fed my brother has now gone.’

Example 1030 also illustrates relativization into the direct object. The relative clause in 1030a is headed by -:pe \langle SgM \rangle, coreferential to the dog. Because it is animate -ti ‘animate’ must follow, and the internal coreferent bears -kʰɛ ‘objAn’. By contrast, the relative clause in 1030b is headed by -ne \langle ø \rangle (presumably because there is no more-specific classifier for bread), satisfying the structural requirements for a classifier head, and the internal coreferent, being inanimate, does not bear the object marker.

(1030) a. Táñahbe oohíbyeke iájtyúmɨíbedívú oke ajcúhi.
    b. Táñahbe pááa iájtyúmɨíbedívú oke ajcúhi.

\begin{align*}
& tʰá \; G \; ɲa^2pè_k \; \{ \\
& \{ \; a. \; \emptyset, \; kʰɛ \; \langle SgM \rangle -kʰɛ \; \langle SgM \rangle -objAn \; \\
& \; \langle SgM \rangle -anim-thm \; \{ \\
& \; \langle SgM \rangle -\langle ø \rangle -thm \; \}
\end{align*}

\begin{align*}
& i_k \; a^sx[ʃʰ]-umí \; ]:-pɛᵢ, \; ì-βú \; \\
& \{ \; b. \; pʰá:à_i, \; \langle SgM \rangle -bread \; \\
& \; \langle ø \rangle -\langle t \rangle \; \}
\end{align*}

‘My brother gave me \{ \begin{align*}
& \text{a. the dog he found} \; \\
& \text{b. the bread he found} \; \}
\end{align*}’

Further examples of relativization into the direct object follow. (See also 366, page 178.)
18.3. RELATIVIZING INTO NONSUBJECT POSITIONS

(1031) Óóma u dsɨ́jcójama ó peé wañéhjivu.
[ó:-mà ü ōi tsf[khó ]-hâ]-mâ⁸
I-with you sew -(shelter)-with
ó pʰɛ́-ɛ-ʔ ᵀpâňɛ̃hî-βû
I go-fut-(t) festival-goal
‘I will go to the festival with the clothes (shirt, pants,…) you sewed for me.’

(1032) Táwajyámúu o dsɨ́jcója tsúúca nójcanúhi.
[tʰá G kpah’hámũ-ũ] ō [ō ōi tsf[khó ]-hâ]
my clothes-rem I sew -(shelter)
tsʰú:kʰànóˣkʰànũ-ʔì
already deteriorate-(t)
‘The clothes that I sewed are now deteriorated.’

Recall that we claimed in section 10.3.2 that aʰkʰu ‘give’ obligatorily undergoes inversion, the recipient being marked as a direct object and the theme (what is given) being marked with -βû ‘goal’. After inversion, it is possible to relativize into the direct object (the recipient); if the theme (what is given) is expressed, it is marked with -βû ‘goal’, as in 391, page 190. Likewise, it is possible to relativize into the direct object (theme, what is given); if expressed, the recipient is marked as a direct object. This is illustrated in examples 1033–1035:

(1033) Okée u ájcúwari ó wákímę̀éhi.
[ó-kʰɛ-ɛ ō ōi aʰkʰu ]-kpâ]-rì ó kpâkʰímʲɛ́-ʔì
I-objAn-rem you give -(slab)-oblIn I work-(t)
‘I am working with the machete (plank,…) that you gave me (some time ago).’

(1034) Okée u ájcúwatu ó meenú llééhowa.
[ó-kʰɛ-ɛ ō ōi aʰkʰu ]-kpâ]-tʰũ ó mɛ:nũ-ʔì
I-objAn-rem you give -(slab)-sou I make-(t)
tʃéʔò-kpâ
door-(slab)
‘I made a door with the plank you gave me (some time ago).’

⁸In 1031 -ma ‘with’ is used rather than -ri ‘inanimate oblique’, probably because one would not ordinarily put on his new clothes until arriving at the festival; that is, he would go—as it were—in the company of his new clothes. (This observation was made by Eva Thiesen, personal communication.)
⁹See also example 438, 203.
(1035) Cáraca táñáhbeke o ájcuube dsíjivéhi.

\[
k^{h}år^k^{h}å \quad \ominus \quad [ \, t^{h}å \quad gá-\, ?pè \quad ] \, k^{h}è \quad o \, ñ^xk^{h}ùù \, ] \, :pè_i
\]

chicken my sib-(SgM) - obj An I give -(SgM)

tśíhiβé-ʔi
die-(t)

‘The chicken that I gave my brother died.’
Chapter 19

Some Comments on Discourse

In this chapter we discuss the form and use of the thematic connectives (19.1), make an observation on defining context (19.2), and comment on ellipsis (19.3).

19.1 The thematic connective

In connected discourse, each sentence except the first usually begins with a connective that indicates the relevance of that sentence to the context. The connective is the sentence’s thematic link to the preceding discourse, particularly to the preceding sentence.

19.1.1 The form of connectives

The connectives are formed with a(ː)- (aa-) ‘thematic’ and at least one following morpheme. When a(ː)- is followed by a classifier the connective functions as a pronominal, and may serve as an argument of the verb of the main clause. The formation of pronominal connectives is discussed in section 19.1.1.1. When a(ː)- is followed by a classifier referring to time, place, (and so forth) the connective functions as an adverb; these are discussed in section 19.1.1.2.
19.1.1.1 Pronominal connectives

(Pro)nominal connectives refer to some participant in the preceding context. There are two types: animate and inanimate. The animate pronominal connectives are given in Table 19.1.

Table 19.1 Animate thematic pronouns (connectives)

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>feminine</td>
<td>àː-ʔɛ̀ ('he')</td>
<td>àː-ʔɛ̀ː-kʰɯ̀ ('those two (masc.)')</td>
<td>àː-ʔɛ̀-ˀhɨ́ ('those two (fem.)')</td>
</tr>
<tr>
<td>masculine</td>
<td>àː-ʔɛ̀ ('he')</td>
<td>àː-ʔɛ̀ː-kʰɯ̀ ('those two (masc.)')</td>
<td>àː-ʔɛ̀-ˀhɨ́ ('those two (fem.)')</td>
</tr>
</tbody>
</table>

The inanimate connectives are formed with a(ː) ‘thematic’ and an inanimate classifier.\(^1\) The classifier may be followed by -kʰɯ ‘duIn’ or -(ˀ)hɨ ‘plural’. Examples follow.

(1036) a. àː-ʔɛ̀ (aahe) ‘that tree’
   thm-(tree)
   b. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two trees’
   thm-(tree)-du
   c. á-ʔɛ̀-ˀhɨ́ (áhehjɨ) ‘those trees’
   thm-(tree)-pl

(1037) a. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two trees’
   thm-(tree)-du
   b. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two trees’
   thm-(tree)-du
   c. á-ʔɛ̀-ˀhɨ́ (áhehjɨ) ‘those trees’
   thm-(tree)-pl

(1038) a. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two leaves (paper, book,…)’
   thm-(leaf)-pl
   b. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two leaves (paper, book,…)’
   thm-(leaf)-pl
   c. á-ʔɛ̀ː-kʰɯ̀ (áheécu) ‘those two leaves (paper, book,…)’
   thm-(leaf)-pl

\(^1\)Because these are inanimate, they never bear -(ˀ)kʰɛ’objAn’ nor -(ˀ)ti ‘benefactive’.
19.1. THE THEMATIC CONNECTIVE

19.1.1.2 Adverbial connectives

Adverbial connectives refer to the preceding event or to the situation or circumstance resulting from it. Within the clause initiated by the connective, it functions as an adverb, referring to manner, time, place, duration, distance, degree, reason, and so forth. (Note, although these function as adverbs, structurally they are nominals.) Table 19.2 lists some of the more common adverbial connectives:

<table>
<thead>
<tr>
<th>Connective</th>
<th>Function</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>à-ˀtù</td>
<td>thm-⟨like⟩</td>
<td>(ahdu) ‘in that way’</td>
</tr>
<tr>
<td>á-lihùu</td>
<td>thm-⟨time⟩</td>
<td>(áijyu) ‘at that time’</td>
</tr>
<tr>
<td>áː-ːnɛ̀-ʧìː</td>
<td>thm-⟨ø⟩-motive</td>
<td>(áánéllii) ‘for that reason’</td>
</tr>
<tr>
<td>àː-nɛ̀</td>
<td>thm-⟨event⟩/-⟨ø⟩</td>
<td>(aane) ‘then’</td>
</tr>
<tr>
<td>á-ːnáà</td>
<td>thm-frs-while</td>
<td>(áróñáa) ‘but’</td>
</tr>
<tr>
<td>á-tsʰi-ˀtʲɯ̀</td>
<td>thm-⟨place⟩-sou</td>
<td>(átsihdyu) ‘from that place’</td>
</tr>
<tr>
<td>áː-náà</td>
<td>thm-while</td>
<td>(áánáa) ‘meanwhile’</td>
</tr>
<tr>
<td>áʔàˣʧʰó-tʰà</td>
<td>thm-⟨duration⟩-relating.to</td>
<td>(áhajchóta) ‘for that time/distance’</td>
</tr>
</tbody>
</table>

19.1.2 The use of thematic connectives

To introduce a referent into the universe of discourse, it must be clearly identified. This can be accomplished with a sentence having a noun phrase subject, as in 1039, or—if the context is sufficiently rich—with a pronoun, as in 1040:

(1039) ðiː:pʲɛ́ tɕiːnɛː-ʔì (Ooíbyé dsiːnéhi.) ‘The dog runs.’
  dog-⟨SgM⟩ run-⟨t⟩

(1040) áːmù tʰɛmɛː-ʔì (Áánu cheméhi.) ‘This one (SgM) is sick.’
  this be.ill-⟨t⟩

A sentence that continues a discourse usually begins with a connective that ties the sentence to the context, almost always to the immediately preceding sentence. The connective is always the first phrase in the sentence.
It may refer to the situation created by the preceding events, to the time of the most recently-mentioned event, or to the most thematic element of the preceding sentence. The connective may have a grammatical relation within the sentence it initiates (subject, direct object,...) or function adverbially (place, time, reason,...).

For example, the story “A woman becomes a toucan” starts as in 1041. A woman is introduced in the first sentence with a noun phrase (which are actually two appositive phrases). In the second sentence she is referred to by the thematic connective àːʧɛ́βáà.2

(1041) Tsáápilléváa bádsíjcaja awáhi.
Aalléváa paíjyuváré pehíjcyá úmìhévú õhmaahóma.

tsʰáː-pʰíʧɛ́-βá-á pátsʰʰà-ḥá ḥkápá-ʔ
one-(SgF)-rpt-rem adolescentF-sgd diet-(t)a

át-ʧɛ́-βá-á pʰà-íh’ù-βá-ré pʰɛ-ʔ i’kʰá-ʔì
thm-(SgF)-rpt-rem all-(time)-pl only go-sub be-(t)

úmìʔé-βú fʔ màʔó-mà
field-goal self cassava-pl
‘A young girl was dieting. She would go every day to the field with her cassava.’

Likewise, in 1042 the first sentence introduces the shelter while the second uses it both as the thematic link to the context and as the goal of putting, by virtue of which it has the case marker -βɯ’goal’:

(1042) ...meenú íńuujúwa. Áawavúváa pícñoḯnuube...

...mè:nú-ʔ i nú:’hú-kpà
make-(t) self shelter-(slab)

át-kpà-βúr-βá-á pʰkʰó-íńùr:-pè...
thm-(slab)-goal-rpt-rem put-do.go-(SgM)

‘...he made himself a little shelter. Into that shelter he put...’

In example 1043, taken from “A chief goes to the jungles” there are three sentences. The connective of the second refers to the skins mentioned in the first, while the connective of the third refers to the cloth mentioned in the second.

2The connective that begins the second sentence of 1041 is the subject of the second sentence. Thus the main verb bears -ʔì (t) because there is a preverbal subject.
19.1. THE THEMATIC CONNECTIVE

(1043) Mɨʔenénváa ávyéjuube tsajtyé cóómívuú.
Áánemáváa wájyamu újcuúbe. Aajáváa tsajtyéebé ihjyávu.

mɨʔ-né-βá-á áβléhù-ːpè tʰappable tʰó-ː-mí-βùúú
skin-pl-rpt-rem reign-⟨SgM⟩ take-⟨t⟩ town-goal

áː-né-má-βá-á kpáh’amú úªkʰú-ːpè
thm-⟨∅⟩-with-rpt-rem cloth get-⟨SgM⟩

àː-há-βá-á tʰàtʰé-ːpé iʔ³ hä-βù
thm-⟨cloth⟩-rpt-rem take-⟨SgM⟩ self house-goal

‘The chief took the skins to town. With those he got cloth. He took that cloth to his house.’

As seen in the examples above, nominal connectives bear whatever case marker is appropriate for the grammatical relation they bear in their clause: an animate direct object bears -Lkʰɛ’objAn; a goal bears -βɯ ‘goal’, and so forth. Further examples follow. The mini-discourse in 1044–1047 is followed by some explanatory comments.3

(1044) Tsáijyúi ó peé táiiñújɨvu.
tʰá-ihù-ː i pʰɛ’-ʔì tʰáː iːŋú-hí-βù
one-⟨time⟩-PT I go-fut-⟨t⟩ my dirt-⟨disk⟩-goal
‘At some time I will go to my country.’

(1045) Aabe ó wáyéévééhi.4
àː-pè ő kpájéː-βɛ-ːʔì
thm-⟨SgM⟩ I rest-sIn-fut-⟨t⟩
‘Then I will rest.’

(1046) Áábeke táatsíjú ūcúveéhi.
áː-pè-kʰɛ tʰáː iː tʰiːhù ūkʰú-βɛ-ːʔì
thm-⟨SgM⟩-objAn my mother serve-sIn-fut-⟨t⟩
‘My mother will serve me (food).’

3Note that the tone on àː- in 1045 is low. However, in 1046 and 1047, it must become high to avoid violating the *LLX constraint.
4The sequence ééé is orthographically ambiguous between /ɛ́ɛ́ː/ and /ɛ́ːɛ́/. Evidence that it is the former is that, in the present-past tense, in which the two instances of /ɛ/ bear different tones, the length is associated with the second vowel. Thus, the ééé sequence of ó wáyéévééhi ‘I rest’ is /ɛ̀ɛː/. This is as expected because morphophonemically the sequence is /ɛ́ɛː/, with the length contributed by -βɛ ‘sIn’.
(1047) Áábedi óhdi tsjtye ñdáátsóveéhi.
áːːpɛ̀ ṭhọ ⟨SgM⟩-anim.sou ñ-ʔtì
‘And others will have compassion for me.’

Example 1044 does not begin with a connective because it initiates the discourse. In 1045, áːpɛ̀ refers to the subject of 1044. In 1046, áːpɛ̀kʰɛ̀ refers to the subject of 1045, bearing -kʰɛ̀ ‘objAn’ because it is the direct object of 1046. In 1047, áːpɛ̀-tì refers to the direct object of 1046, bearing -ti ‘animate (source)’ because it is the “source” for pity within the main clause of 1047. Significantly, the first person has been maintained as discourse theme/topic by means of the connectives.

The inanimate connectives are illustrated in the following examples.

(1048) Éijyúpe ó bajtsó tsaxe mútsőftsíhe táhjyá űníutu.
Aahe tsúúca neeváhi.

(1049) Úméhewááné ó nähjiheenúhi.
Ááwáhjitu ó méénuú ácúvewááne.

(1050) Juuváriyée ó ájtyumí waajácúhaamícu.
Áhaamícúú ó tsajté ááhivu.
19.1. THE THEMATIC CONNECTIVE

áʔàːmí-kʰúf-ú  ó tʰáⁿ-tʰɛ̀-ʔi-βù
thm-(leaf)-du-rem I take-(t) home-goal
‘I found two books on the trail. I took those books home.’

We now illustrate the use of adverbial connectives. In the second sentence of 1051, áːnɛ̞-ʧìː indicates that the first sentence is the reason or motive for the second:

(1051) Íʔjyújyu ó cheméhi. Ánélíi tsáhái o májchotú(ne).
   iʔhú-ihʰúū  ó tʰêmé-ʔí
   yesterday-(time) I be.ill-(t)

áː-nɛ́-ʧìː ʦʰ H aʔá-ìòmáˣʧʰò-tʰɯ́-(nɛ̀)
thm-(ø)-motive neg-PTI eat-neg-(⟨n⟩)
‘I was sick yesterday. For that reason I have not yet eaten.’

In the second sentence of 1052, áɾó-náː indicates ‘in spite of that’, referring to the event indicated by the preceding sentence:

(1052) Ájyúu táñaalle tsivá caḥgúnucó.
   Árónáacáa tsá o ímíletú o ádone.
á-ihʰú-úū  tʰá ŋáː-ʧê  tʰiβá-ʔi
thm-(time)-rem my sib-(SgF) bring-(t)
kʰâ’kúnù-kʰô
manioc.drink-(InSg)
á-ɾó-náːkʰ H a-ˀpɛ̀-tʰɯ́[ɔ̂]-nɛ̀
thm-frs-while-rem not I want-neg I drink -⟨ø⟩
‘On that day my sister brought manioc drink. But I did not want to drink.’

Now let us illustrate more broadly with the mini-text in 1053–1058, following which there is discussion.

(1053) Ópée o péé táiiŋújivu.
   ō-pʰɛ́ː-ʔi-βù
   ‘I went to
I-rem I go-(t) my dirt-(disk) -goal my country.’

(1054) Áábekéé táñaahbe ímí waatsúcúpejtsóhi.
á-ːpɛ̀-kʰɛ́-ʔi  ŋáː-ʔè [tʰá ŋáː⁻ʔè]
thm-(SgM)-objAn-rem my brother
CHAPTER 19. SOME COMMENTS ON DISCOURSE

19.1.3 Thematic connectives and subordinate clauses

In examples 1059 and 1060, the first sentence establishes John as a topic. Then, in the second sentence, the thematic connective refers to that topic, i.e., to John. This connective is the subject of the main clause. The subject of the subordinate clause is the anaphoric pronoun i ‘self’; it refers to the subject of the main clause, i.e., to the connective à-ːpè (that-(SgM)):
19.1. THE THEMATIC CONNECTIVE

(1059) Jóáa péé cóómívúu. Aabe ichéménéllii tsá íífcuí tsáátune.

\[
\text{hóáà } p^h\dot{ɛ}: \; k^b\dot{ό}:mí-\betaùnú \cdot à:pê_i \\
\text{John go-⟨t⟩ town-goal } \overline{\text{that-⟨SgM⟩}} \\
[\text{i, } t^j\dot{ɛ}:mù \cdot \text{né-tjì: } ts^h\dot{á}: \text{f}k^b\dot{ù}nù \text{ ts}^h\dot{á}: \cdot t^h\dot{ù}-nê \\
\text{self sick- ⟨ø⟩-because not } \text{hurry come-neg-⟨n⟩} \\
\text{‘John went to town. Because he was sick, he did not come quickly.’}
\]

A more remarkable case is seen in the three synonymous mini-texts represented in 1060a–c. The thematic connective of the second sentence, á-rò-ːpê (that-frs-⟨SgM⟩), is understood as the subject of the subordinate clause.

(1060) a. Jóáa wajtsíhi. Ároobe ó ímillé dibye pééneé.
    
    b,c. Jóáa wajtsíhi. Ároobe pééne ó ímillééi.

\[
\text{hóáà, kpà^t s^b}: \text{-ʔì} \\
\text{John arrive-⟨t⟩} \\
\begin{cases}
\text{a. á-rò-ːpê_i, } \text{ó ímítʃé-ʔì } [\text{tì-p}^j\dot{ɛ}_i, \text{p^h}: ]-nêé \\
\text{that-frs-⟨SgM⟩ I want-⟨t⟩ that-⟨SgM⟩ go } -⟨\phi⟩ \\
\text{b. [á-rò-ːpê } \text{p^h}: ]-nêé \text{ ó ímítʃé-ʔì } \\
\text{that-frs-⟨SgM⟩ go } -⟨\phi⟩ \text{ I want-⟨t⟩} \\
\text{c. á-rò-ːpê_i } [\text{ø}_i, \text{p^h}: ]-nêé \text{ ó ímítʃé-ʔì } \\
\text{that-frs-⟨SgM⟩ go } -⟨\phi⟩ \text{ I want-⟨t⟩}
\end{cases}
\]

a–c. ‘John arrived. However, I want him to leave / that he leave.’

In 1060a the referential tie is made by having the pronoun ti-p^jɛ as the subject of p^h: ‘go’ in the subordinate clause. In 1060b the thematic connective simply is the subject of the subordinate clause. As might be expected, this is more natural than 1060a.

If a second position clitics were to occur in either a. or b., it would directly follow the thematic connective. This is unproblematic in 1060a but for 1060b, it would locates a second position clitic within a subordinate clause. This motivates the alternate structure in 1060c, in which, like in 1060a, the thematic connective is a constituent of the main clause. 1060c is also like 1060a in that the subject of the subordinate clause is a pronoun that refers to the thematic connective, but this is achieved by positing a silent pronoun.

Obviously, which analysis is preferred will depend on theoretical assumptions. We will not attempt to settle the matter here.
19.1.4 Topic decay and reestablishment

Consider the following text fragment taken from “A woman becomes a toucan.” This is a story about a woman, so not surprisingly she is the most topical participant throughout.

...(1) Aaméváa péé díillé kemúellére. (2) Aaméváa íīténáa teene cátuuiji ityábáhcyóñé lléhdolléré pééhií. (3) Aanéváa diityéké jájtyúmíne tsane Ḫálkáhñévéne wááménelle caámevújúco, tsúúca núllédívú pívyetélle rélléjúco. (4) Aanéváa diitye úúballévá...


...(1) Then they went after her at a distance. (2) While they were looking she pulled up some ṅejilla palm fruit and went eating it. (3) Then seeing them, she put one between her lips and flew up high becoming a toucan. (4) Then they came and told...

The topic of sentences preceding this fragment is the people who observed the woman. In the first and second sentences of this fragment, they are referred to by the connective àː-mé-βá-à (thm-(AnPl)-rpt-rem) ‘they’. The second and third sentences also refers to the woman with the classifier -ʧɛ (SgF) ‘she’ and the anaphoric pronoun í ‘self’. This is possible because she is the main participant of the text as a whole, so the topicality of the observers does not displace her as a readily-available topic. (In the third and fourth sentences the connective àː-né-βá-à simply means ‘then.’) In the fourth sentence, the people are reestablished as topic by means of the pronoun tʰɛː (that-(AnPl)) ‘they’. This illustrates part of the following generalization: Thematic connectives and classifier subjects maintain topics, whereas other pronouns establish or reestablish them.

19.2 Co-text or context

In virtually all cases, if the thematic connective refers to a person or thing (as opposed to a time, place, manner, circumstance, and such), it will have been mentioned explicitly in the previous sentence. Thus it is tempting to claim that the connective must be coreferential to some element of the
preceding sentence, to an adjacent portion of the co-text. However, it is more accurate to say that the connective refers to an element of the context (what the speaker assumes the hearer has in mind at the point of uttering a sentence) and that this is usually—but not always—explicit in the co-text.

For example, in 1061 (taken from “The Creator’s Daughter”) the first sentence refers to digging in the ashes of the fireplace. The thematic connective of the second sentence refers to the hole, which has not been explicitly mentioned. Of course, digging brings a hole very much to mind, i.e., digging brings a hole into the context, so the hole can be referred to by the thematic connective.

(1061) Ehdúváa nééllere tsehdí ñcyujúwá llíjyutu.
Áhejúriváa dityépí péjúcórónáa óómille...
èʔ-tú-aí nè-ñj è-sè-rè thèe-ní ií xkhùhkúkpá
that-(like)-rpt-rem say-(SgF)-only dig-(t) self fire
tʃíhˈu-ʃhú-áʔnú-rí-aí tím-ɛ́pʰí
ashes-sou thm-(hole)-oblIn-rpt-rem that-(DuF)
pʰe-húkʰóː-ró-náà ómí-tʃè...
go-now-frs-while return-(SgF)
‘Thus saying she dug up some ashes from her fireplace. While they were going into that hole she returned...’

In the light of such examples, we must say that the connective must link to some element of the context, not necessarily to one that is explicit in the preceding co-text.

19.3 Ellipsis and gapping

In a sufficiently rich context much of a sentence may be ellipsed, even the verb. For example, in answer to the question in 1062, one could answer with 1063. (See also examples 277 and 278, page 152.)

(1062) à ʃhú y/n you go-now-(t)
(1063) tsʰéháʔá-íkʰè (Tsáháiíkye.) ‘Not yet (but soon).’
not-PT

In 1064, the verb of the second clause is ellipsed:
At one time we wash the white ones (from among them); in the same way, at another time the colored ones. 
# Appendix A

## Dialect Differences

There are several Bora dialects, each spoken by a different clan. They differ mainly in terms of palatalization. The following words are given for three clans.

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Íñeje</th>
<th>Báácoje</th>
<th>Llívamu</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to put</td>
<td>pʰìkʰò</td>
<td>pʰìkʰò</td>
<td>pʰìkʰò</td>
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<td>2 my watch</td>
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<td>tʰànúˀpà</td>
<td>tʰànúˀpà</td>
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<td>3 hammock</td>
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<td>kpàápʰà</td>
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<td>kpáːpʰàʔu</td>
<td>kpáːpʰàʔu</td>
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<td>5 needle</td>
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<td>ánɛ́tʰò</td>
<td>ánɛ́tʰò</td>
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<td>6 needles</td>
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<td>ánɛ́tʰοːnɛ́</td>
<td>ánɛ́tʰοːnɛ́</td>
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<td>7 to clean</td>
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<td>pʰàːhʰúkʰů</td>
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</tr>
<tr>
<td>8 to hurt</td>
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<td>ñβ̊éβ̊è</td>
<td>ñβ̊éβ̊è</td>
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<td>9 to be exchanged</td>
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<td>kʰápʰájóːβ̊è</td>
<td>kʰápʰájóːβ̊è</td>
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<td>11 chief</td>
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<td>áβ̊éhɯ́ʔǿp̊e</td>
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<td>nûʳʰpʰàkʰò</td>
<td>nûʳʰpʰàkʰò</td>
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<td>tsʰíβ̊à</td>
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<td>õkʰè</td>
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<tr>
<td>17 I come</td>
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<td>õ tˢʰáhàkʰːőː</td>
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<td>18 we</td>
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<td>mûʳtsʰi</td>
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<td>aːtʰè</td>
<td>aːtʰè</td>
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<td>əːrîkʰò</td>
<td>əːrîkʰò</td>
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<td>---------------</td>
<td>----------------</td>
<td>----------------</td>
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<td>pòrʲkʰò</td>
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<td>30 to jump</td>
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<td>kʰàβɛ́ˀíŋːβɛ́</td>
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<td>tʰàˣkʰúpà</td>
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<td>ìkʰàβɛ́ˀɪʔ</td>
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<td>ìkʰókʰà</td>
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<td>ihókʰúnmù</td>
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<td>ìmɛ́mɛ̀</td>
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<td>tʃíhà</td>
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<td>tʃíhːákʰòːʔà</td>
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<td>—</td>
</tr>
<tr>
<td>53 cooking pot</td>
<td>tʃíkʰò</td>
<td>tʃíkʰò</td>
<td>—</td>
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<td>54 to knot a lasso</td>
<td>tʃòpʰikʰárò</td>
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<td>—</td>
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<tr>
<td>55 to joke</td>
<td>máᵗʃíhùnú</td>
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<td>máᵗʃí</td>
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<td>57 to sing</td>
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<td>59 he is big</td>
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<td>60 two people</td>
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<td>61 to be sad</td>
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<td>nɛ́ːnìβɛ́</td>
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</tr>
<tr>
<td>63 to climb</td>
<td>nɛ́ːβɛ́˲</td>
<td>nɛ́ːβɛ́˲</td>
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<tr>
<th>GLOSS</th>
<th>Íñeje</th>
<th>Báácoje</th>
<th>Llívamu</th>
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<td>64 frog</td>
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<td>níʔhákpà</td>
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<td>níʔk’héhi</td>
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<tr>
<td>70 porcupine</td>
<td>níʔháuù</td>
<td>níʔháuù</td>
<td>níʔháuù</td>
</tr>
<tr>
<td>71 to molest</td>
<td>pʰáts’hrf’kh’ò</td>
<td>pʰáts’hrf’kh’ò</td>
<td>pʰáts’hrf’kh’ò</td>
</tr>
<tr>
<td>72 to gather together</td>
<td>pʰʔ’k’há:βê</td>
<td>pʰʔ’k’há:βê</td>
<td>pʰʔ’k’há:βê</td>
</tr>
<tr>
<td>73 to thunder</td>
<td>ròrf’k’hò</td>
<td>ròrf’k’hò</td>
<td>ròrf’k’hò</td>
</tr>
<tr>
<td>74 to dig</td>
<td>ts’h¿tik’hùù</td>
<td>ts’h¿tik’hùù</td>
<td>ts’h¿tik’hùù</td>
</tr>
<tr>
<td>75 another</td>
<td>ts’híɲè</td>
<td>t’híɲè</td>
<td>t’híɲè</td>
</tr>
<tr>
<td>76 another (male)</td>
<td>ts’híp’hí</td>
<td>t’híp’hí</td>
<td>t’híp’hí</td>
</tr>
<tr>
<td>77 something</td>
<td>ts’híe’ménè</td>
<td>t’híe’ménè</td>
<td>t’híe’ménè</td>
</tr>
<tr>
<td>78 cold weather</td>
<td>ts’híf’kh’ò?ò</td>
<td>t’híf’kh’ò?ò</td>
<td>t’híf’kh’ò?ò</td>
</tr>
<tr>
<td>79 different</td>
<td>ts’hít’úùrè</td>
<td>t’hít’úùrè</td>
<td>t’hít’úùrè</td>
</tr>
<tr>
<td>80 far</td>
<td>ts’hítúíf’ê</td>
<td>t’hítúíf’ê</td>
<td>—</td>
</tr>
<tr>
<td>81 to untie</td>
<td>ts’hínaajò</td>
<td>t’hínaajò</td>
<td>t’hínaáro</td>
</tr>
<tr>
<td>82 mouse</td>
<td>ts’hiniù</td>
<td>t’hiniù</td>
<td>t’hiniù</td>
</tr>
<tr>
<td>83 cold place</td>
<td>ts’hú:k’hóts’hù</td>
<td>t’hú:k’hóts’hù</td>
<td>t’hú:k’hóts’hù</td>
</tr>
<tr>
<td>84 to become skinny</td>
<td>úr’t’híf’t’hê</td>
<td>úr’t’híf’t’hê</td>
<td>úr’t’híf’t’hê</td>
</tr>
<tr>
<td>85 basket</td>
<td>úb’hùr’ts’hì</td>
<td>úb’hùr’ts’hì</td>
<td>úb’hùr’ts’hì</td>
</tr>
<tr>
<td>86 to whip</td>
<td>kpá’t’hír’kh’ùù</td>
<td>kpá’t’hír’kh’ùù</td>
<td>kpá’t’hír’kh’ùù</td>
</tr>
<tr>
<td>87 hole</td>
<td>kpá’héhùù</td>
<td>kpá’héhùù</td>
<td>kpá’héhùù</td>
</tr>
<tr>
<td>88 piece of log</td>
<td>kpá’òòùù</td>
<td>kpá’òòùù</td>
<td>kpá’òòùù</td>
</tr>
<tr>
<td>89 cloth</td>
<td>kpá’hámuù</td>
<td>kpá’hámuù</td>
<td>—</td>
</tr>
<tr>
<td>90 to prune</td>
<td>kpá’hír’kh’ò</td>
<td>kpá’hír’kh’ò</td>
<td>—</td>
</tr>
<tr>
<td>91 to come</td>
<td>ts’háá</td>
<td>t’háá</td>
<td>ts’háá</td>
</tr>
</tbody>
</table>
Appendix B

Speculations on Diachronic Processes

The following are speculations about how some forms may have developed from earlier stages of the language:

1. Two suffixes have the form -ːβ⁽ʲ⁾ɛ. One is glossed as ‘become’ (as in 137); the other is glossed as ‘singular intransitive (sIn)’ (as in 242). These are at least cognate; perhaps they are a single morpheme with two uses.

2. ímipâ*ʧʰò ‘fix’ may derive from *imi-pa-ʧʰo (good-verbalizer-caus). Likewise, iʰuβà ‘talk’ may derive from *iʰhu-βa mouth-verbalizer and ŭʰkʰáβà ‘become fat’ from *wʰkʰa-βa- fat-verbalizer.

3. ímihʲù ‘happy’ may derive from *imi-hˡu (good-speech); e.g., ímihʲù-ːβɛ́-mɛ̀ ‘they became very happy’.

4. ímijβɛ́- ‘finish’ may derive from ími-βɛ́- (good-verbalizer). (However ímijβɛ́- is a transitive verb, whereas -ːβ⁽ʲ⁾ɛ generally derives intransitive verbs.)

5. í kpâhʲámù ‘his clothes’ may derive from i kpa-ha-mu (self ⟨slab⟩-langle shelter⟩-pl), perhaps because the body is perceived as roughly slab-shaped (like a plank).

6. Perhaps the /pa/ of -kʰopa ‘augment’ is cognate with pʰa- ‘all, big’.

7. maʰ’o ‘eat (bread)’ may derive from *mai-tsʰo- (bread-cause), with the /*i/ palatalizing the /ts/. Support for this is found in the word máⁿʔo ‘cassava bread’.

8. pʰi;βɛ́ ‘grow’ may derive from pʰi-;βɛ́. The *pʰi would have been either ‘body’ or ‘big’; the *-βɛ would have been either the verbalizer
‘become’ or ‘sIn’ (which, as suggested above, may have been the same morpheme).

9. -nːaːkʰa ‘meanwhile’ may derive from *-nɛ-ːɑːkʰa ( ⟨o⟩ -realize). This may be due to either a historical or a morphophonemic process.

10. ʰiːkʰa ‘be’ forms a compound tense indicating imperfective aspect. It is frequently interpreted as habitual. It is now bound but was undoubtedly free at some prior stage of the language.

11. -ʦʰi (not palatalized) ∼ -ʧʰi (palatalized) ⟨place⟩ and -ʔɯʧɛ ⟨yonder⟩ ∼ ěʧɛ (root) ‘yonder, over there’ are probably cognate.

12. Consider the requirement that, when -βɯ ‘goal’ follows an animate phrase, the phrase must bear the suffix -⁽ˀ⁾ti ‘animate’, as in example 656, page 276. This suffix, which now appears to mark animacy, may have arisen from the pronoun ti ‘that’ in locational uses of the genitive construction along the lines of ěʧɛ in example 660, page 276.

13. ʦʰɨːmɛ ‘children’ may derive from ʦʰɨː-mɛ (baby-AnPL) where ʦʰɨː- is cognate with the classifier -ʦʰ ⟨baby⟩.

14. The /hɯ/ of -.paused hɯkʰoː ‘now, already; focus’ may be cognate with the /hɯ/ of -paused hɯ-ˣ ‘quick-vocative’.

15. -ʔi ⟨t⟩, the trace left when a subject is moved to before the verb, may be cognate with i ‘self’.

16. miː ‘two’ may be cognate with -mɯ ‘dual’ as in -mutfʰi ⟨DuM⟩ and -mupʰi ⟨DuF⟩.

17. -naː(ːkʰ) ‘while’ (discussed in section 17.3) may be derived from -nɛ ⟨event⟩ and the adverbial clitic -ha(ːca) ‘realize’ (listed in 11.2).

18. The pronoun mɯɯ ‘indefinite animate singular’ discussed in section 14.3.2 may be cognate with -mɯ ‘plAn’.

19. The suffix -paused ʦʰ ‘each’ is probably cognate with the root ʦʰ- ‘one’.

20. See footnote 11, page 106, regarding probable source of certain verbs often used in compounds.

21. See chapter 15, footnote 2, regarding the possible historical development of an interrogative suffix that docks a high tone on the host’s final syllable and causes the final vowel to change from /e/ to /a/.

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1 This verb means ‘be (at a place)’. The English progressive as in *He is working* arose from *He is at working*. The Bora imperfective (or habitual) may have arisen from such a construction.
Appendix C

A List of Bound Adjectival Stems

The bound adjectival stems below are alphabetized according to the practical alphabet. In example words, a label between square brackets indicates its grammatical category.¹

Many bound adjectival stems end with a vowel followed by /e/. This is the suffix -ɛ- ‘pertain to’ (discussed in section 6.2.11). For example, the bound adjectival atérée- is atʰɛɛ ‘worthless’ followed by -ɛ- ‘pertain to’.

**aa- ~ a- a(:)- ‘that’ (thematic connective), e.g.,**
- áʔɯ̀ʧɛ̀ (áhulle) [adverbial thematic connective] ‘that place’,
- áihˈtu (áijyu) [adverbial thematic connective] ‘that time’,
- àːʧɛ̀ (aalle) [pronominal thematic connective] ‘that one (SgF)’,
- àːmɛ̀ (aame) [pronominal thematic connective] ‘those (AnPl)’,
- àːkpà (aawa) [pronominal thematic connective] ‘that slab-like thing’
  -rò ~ -jò frs’ may be added as in áròʔāmɨ̀ (áròháámɨ) [pronominal thematic connective] ‘that leaf-like thing, although it does not seem to be’,
- árónáà (árónum) [adverbial thematic connective] ‘but, however, by contrast’

**apaa- ~ apa- apʰà(:) ‘only’ (-ɾɛ always follows.) For example, apʰāmʰɛɛ̀ (apáamyɛɛre) [adjective] ‘the only ones (AnPl)’,**
- apʰāʔmɛɛ̀ (apáhaamɛɛre) [adjective] ‘the only leaf-like thing’

¹In this list, the category of a bound adjectival stem followed by a classifier is generally given as [adjective]. Strictly speaking such phrases are nouns (or noun phrases); these phrases are referred to as “adjectives” because they frequently stand in apposition to another noun (phrase) that they modify (“qualify”).
APPENDIX C. A LIST OF BOUND ADJECTIVAL STEMS

atérée- àtʰɛ́rɛ́ɛ̀- ‘worthless, despicable’, e.g.,
àtʰɛ́rɛ́ɛ̀kpà (atéréeewa) [adjective] ‘worthless slab-like thing’
bee- ~ be- ~ beh- pɛː- ~ pɛ- ~ pɛʔ- ‘new, recent’, e.g.,
pɛːpɛɛ ~ [pɛːpɛ] (béébéé ~ [béébe]) [adjective] ‘the one (SgM) that just arrived’,
pɛʔhɛ̀ (bejte) [adjective] ‘the new ones (AnPl)’,
pɛʔhà (behjɔ) [adjective] ‘the new shelter-like thing’
biwa- pilkpà- ‘the same as before’, e.g.,
pilkpàh (biwája) [adjective] ‘the same slab-like thing’,
pilkpáʔuutfɛ̀ (biwáhulle) [adjective] ‘the same place’
bónnée- pónɛ́- ‘the following, after a time’, e.g.,
pónɛ́ʔàːmɨ̀ (bóonnéháámɨ) [adjective] ‘the next leaf-like thing’
bónnétu- pónɛ́-tʰù- ‘following, behind’, e.g.,
pónɛ́tʰùɛ̀ (bónnétuɛ̀) [adjective] ‘the next vehicle of transport-

cóee- ~ cóe- kʰóɛ̀ː- ~ kʰóɛ̀- ‘extra, excess’, e.g.,
kʰóɛ̀ɛ̀m (cóeem) [adjective] ‘the extra vehicle of transporta-
kʰóɛ̀pʰáʧì (cóepálli) [adjective] ‘the extra field’

ee- ~ e- èː- ~ è- ‘that (medial)’, e.g.,
èːmì (éeem) [demonstrative pronoun] ‘that (medial) vehicle of trans-
èʔàːmì (éhaámì) [demonstrative pronoun] ‘that (medial) leaf-like thing’

eh- èː- ‘that (distal)’, e.g.,
èʔhi ~ èʔhi (éhjìi ~ éhjì) [demonstrative pronoun] ‘that disk-like thing’

ehdícyà- è²tikʰà- ‘like that’, e.g.,
è²tikʰàpè (ehdícyàábe) [indefinite pronoun] ‘that one (SgM) like this’

ékʰà-pà (éhkàpà) [adjective] ‘drum (trunk,…) like that one’,
èʔáʧɯ́-pà (éhdaÁpà) [quantifier] ‘that many drums (trunks,…)’

éhnéjcú- è²nɛ́kʰúɛ̀- ‘that side’, e.g.,
è²nɛ́kʰúɛ̀-ʔà (éhnéjcúéhi) [adjective] ‘that side of the river’

hajcho- ?aʔj’o- ‘the same size, the same height, the same distance’, e.g.,
?aʔj’ó-pè (hajchóóbe) ‘one (SgM) who is the same height’, as in example 495, page 224;
?aʔj’ó-hà (hajchójà) [comparative adjective] ‘one ⟨shelter⟩ the same size as’, as in 496, page 224.

hállu- ?áfù- ‘pertain to the upper part’, e.g.,
?áfù-ʔà (hálúewa) [adjective] ‘the slab-like thing on top’
hállúvúe-ʔáʧɯ́-βɯ́-ɛ̀-(upper-goal-per) ‘pertain to that which is on top or next in sequence’, \(^2\) e.g.,
ʔáʧɯ́-βɯ́-ɛ̀-ʔáːmɨ̀ (hállúvúeháámɨ) [adjective] ‘the leaf-like thing that follows (or is on top of) another’,
ʔáʧɯ́-βɯ́-ɛ̀-xʰpʰɨ́ (hállúvúejpi) [adjective] ‘the next one (SgM)’
i-~ɨ-1-~i- ‘this (proximate)’, e.g.,
hʻũũũṹ~ihʻũṹ (įjyuú~įjyu) [demonstrative] ‘this (proximate) long thin thing (road, shotgun,...)’
íeve-íeβɛ̀-‘empty, not in use, available, free’, e.g.,
i̊eβɛ̀?ámɨ́ (i̊eveháámɨ́) [adjective] ‘the available leaf-like thing’,
i̊eβɛ̀?e-hṹ (i̊evehéjṹ) [adjective] ‘empty hole’,
i̊eβɛ̀-mɨ́ (i̊évemɨ́) [adjective] ‘the empty vehicle of transportation’,
i̊eβɛ̀-pɛ̀ (i̊ëvebe) [adjective] ‘the naked one (SgM)’
i̊hdícyəa- i̊t̊íkʰa- ‘like this’, e.g.,
i̊t̊íkʰa-mɛ̀ (i̊hdícyame) [indefinite pronoun] ‘like these (AnPl)’,
i̊t̊íkʰa-ihʻũu-riting (i̊hdícyâjũyũre) [indefinite adverb] ‘whenever’,
i̊t̊íkʰa-ʔũ CPF (i̊hdícyâ-hulũ) [indefinite adverb] ‘wherever’
i̊hdyúe- i̊t̊úuí- ‘separate’, e.g.,
i̊t̊úuí-mîʔò (i̊hdyúeśiho) [adjective] ‘the separated hide (sheet of metal, etc.)’
illu- ńʃṹ-‘like this’, e.g.,
ńʃṹ-rò (ńlluro) [demonstrative pronoun] ‘like this bottle’,
ńʃṹ-rò-βà (ńllurovû) [quantifier] ‘this quantity of bottles’
ńmihũva-ńmîβã-‘pretty, good’, e.g.,
ńmîβã-hũ (ńmihũvajũ) [adjective] ‘the pretty path (road, shotgun,...)’
ńnejcue-ńnekhũ-ë-‘pertain to this side’, e.g.,
ńnekhũ-ʔòšʦʰɨ́ (ńnejcuehójetsi) [demonstrative pronoun] ‘the hand of this side’
ńdsihiũva-ńtsiβã-‘worthless’, e.g.,
ńtsiβã-ńkʰũ (ńdsihiũxhcyu) [adjective] ‘worthless frame’
ńhde-ńt̊é-ë ‘old, pertaining to former time’, e.g.,
ńt̊é-ë-xʰpʰɨ́ (ńhdeejpu) [adjective] ‘the old one (SgM)’,
ńt̊é-ë-xʰaťɨ́ (ńhdeepepallũ) [adjective] ‘the old field’
ńmiáá-ńmiá-‘generous, proper, just, saintly, valuable’, e.g.,
ńmiá-ːʃã (ńmiáólle) [adjective] ‘the saint (SgF)’,
ńmiá-mi (ńmiáámɨ́) [adjective] ‘a good vehicle of transportation’
ńvee-ίβɛ̀-‘why’, e.g.,
ίβɛ̀-kʰɨ́ (ńveekf) [interrogative adverb o pronoun] ‘for what reason’,
ίβɛ̀-pɛ̀ (ńveebe) [interrogative pronoun] ‘why (SgM)’,

\(^2\)The presence of -βũ (-vu) ‘goal, theme’ in this construction is very interesting.
APPENDIX C. A LIST OF BOUND ADJECTIVAL STEMS

ɨ́βɛ̀ː-kpà (ɨ́ veewa) [interrogative pronoun] ‘why (slab)’
kee- ~ ke- kʰɛ̀ː- ~ kʰɛ̀- ‘which’, e.g.,
kʰɛ̀ː-ʔɛ̀ (keéhe) [interrogative pronoun] ‘which tree’,
kʰɛ̀ʔàː-mi (kéháámi) [interrogative pronoun] ‘which leaf-like thing’
mí- ~ mi- ~ mii ~ mi:(:) ~ mi:(:) ‘two’ (-kʰuu ‘dual’ follows inanimate classifiers.) Examples:
míː-ɲɛ́-kʰɯ̀ɯ́ ~ míː-ɲɛ́-kʰɯ̀ (mííñécuú ~ mííñécu) [quantifier] ‘two things’,
míː-ʰɛ́ʔàː-hí-kʰɯ̀ (mííjyoojitécu) [quantifier] ‘two days’,
míː-ʰɛ́-kʰɯ̀ ≤ móː-ʰɛ́-kʰɯ̀ (móíjécuú ~ móíjécu) [quantifier] ‘two disk-like things’,
míː-ᵗʰɛ́tsʰí ~ míː-ᵗʰɛ́tsʰí (móítyétsíí ~ móítyétsí) [quantifier] ‘two (DuM)’
mu₇háːvə- mü₂-tíːβá- ‘how it is, what form it has, what type it is, how it behaves’,
mu₇tíː-βá-kʰό (mu₇háːvaco) [adjective] ‘what form (of a long thing thing)’
mu₇dú- mu₇túː- ‘how it is, how big it is, how many there are’, e.g.,
mu₇tíː-ːpɛ̀ (mu₇hduúbé) [adjective] ‘what size (SgM)’,
mu₇tíː-ʰɛ́-kʰôba (mu₇hûpejco) [quantifier] ‘how many nights’
néhni₇háva- nếniʔɪβá- ‘bad, perverse, ugly, horrible’, e.g.,
nếniʔɪβáː-ːpɛ̀ (néhni₇hávaabé) [adjective] ‘the bad one (SgM)’,
nếniʔɪβáː-kpá (néhni₇hávawa) [adjective] ‘the bad slab-like thing’
ni₇hée- nɨ́nɛ́-ː ‘pertaining to the last’, e.g.,
ni₁nɛ́-ː-né (ni₇héesne) [adjective] ‘the last thing’,
ni₁nɛ́-ː-ph’hí (ni₇héesjpi) [adjective] ‘the last (SgM)’,
ni₁nɛ́-ː-xhákʰó (ni₇héesjpcó) [adjective] ‘the last liquid’
o₇héva- o₇ʔɪβá- ‘ugly, horrible, repulsive, despicable’, e.g.,
o₇ʔɪβáː-ːph’hí (o₇hévapájí) [adjective] ‘the ugly (ring, shoe, …)’,
o₇ʔɪβáː-ːpɛ̀ (o₇héválłe) [adjective] ‘the repulsive (SgF)’
pa- ~ paǎ- pʰa- ~ pʰǎ- ‘all, complete, whole’, e.g.,
pʰa-kpá (pawa) [adjective] ‘whole slab-like thing’,
pʰá-ʔámí (páhaámi) [adjective] ‘whole leaf-like thing’,
pʰá-mɛ̀ː-ːrɛ̀ (pámeére) [indefinite pronoun] ‘all (AnPl)’
pá₇héuː- ph₇án thù-ː ‘crucial, most important’, e.g.,
ph₇án thù-ː-kʰu (pá₇hétuéhéjcu) [adjective] ‘the most important pillar’,
ph₇án thù-ː-xp’hí (pá₇hétuéjpi) [adjective] ‘the most important (SgM), the main authority (SgM)’

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pápihchúu-  pʰápʰìʔʧʰúːù- ‘three’, e.g.,
  pʰápʰìʔʧʰúːùβà (pápihchúúuva) [quantifier] ‘three small spherical things’,
  pʰápʰìʔʧʰúːùβà (pápihchúúuhiyóva) [quantifier] ‘three pencils (or similar things)’
peve-  pʰèβè- ‘empty, not in use, ordinary, incomplete’, e.g.,
  pʰèβè-tsʰì (pevétsí) [adjective] ‘empty place’,
  pʰèβè-Ċʻè (pevéjte) [adjective] ‘the unemployed (AnPl); the ordinary ones (AnPl)’,
  pʰèβè-βíːiː (pevévií) [adjective] ‘the available pieces of cassava’
pié-  pʰìβà- ‘same as before’, e.g.,
  pʰìβà-ʦʰì (piváisí) [quantifier] ‘many pencils (or similar things)’
peve-  pʰɛ̀βɛ̀- ‘empty, not in use, ordinary, incomplete’, e.g.,
  pʰɛ̀βɛ́-ʦʰíì (pevétsíi) [adjective] ‘empty place’,
  pʰɛ̀βɛ́-ˣtʰɛ̀ (pevéjte) [adjective] ‘the unemployed (AnPl); the ordinary ones (AnPl)’,
  pʰɛ̀βɛ́-βìːɯ̀ (pevéviíu) [adjective] ‘the available pieces of cassava’
pié-  pʰìβà- ‘many, numerous’, e.g.,
  pʰìβàːiːpʰìβà (piváiihiyóva) [quantifier] ‘many pencils (or similar things)’
píìnêe-  pʰìnê- ‘pertains to the center, central’, e.g.,
  pʰìnê-ɛ̀-ʔɛ̀ (píinéede) [adjective] ‘the central tree’,
  pʰìnê-ɛ̀-i (píinéedi) [adjective] ‘the central river’
píìnê-ɛ̀-ʔɔ̂ʦʰìi- ‘four (lit. half a hand)’, e.g.,
  pʰìnê-ɛ̀-ʔɔ̂ʦʰìi-/tcpʰà (píinéehótsímeva) [quantifier] ‘four (AnPl)’
píìnêuː-  pʰìnêuː- ‘corresponding to the center or middle’, e.g.,
  pʰìnêuː-/tcpʰà (píinêuːuwa) [adjective] ‘the slice-like thing in the middle’
teeg̊-  pʰì-ɛ̂- ‘that (aforementioned)’, e.g.,
  tʰì-ɛ̂-hpliantjyu (téijyu) [adverb] ‘the aforementioned time’,
  tʰì-ɛ́-mê (teéne) [definite pronoun] ‘that aforementioned thing’,
  tʰì-ɛ́-kpà (teéwa) [definite pronoun] ‘that aforementioned slab-like thing’
teeg̊-  pʰì-ɛ̂- ‘pertains to the center, central’, e.g.,
  tʰì-ɛ̂-/tcpʰà (tèhdiívawa) [adjective] ‘like the aforementioned slab-like thing’
téhduː-  tʰì-ɛ́-tùː- ‘similar to the aforementioned in size or quantity’, e.g.,
  tʰì-ɛ́-tùː (téhduu) [adjective] ‘the size of the aforementioned ball’
tènejùe-  tʰì-nɛ́-kʰúː-ɛ̀- ‘pertains to the aforementioned side’, e.g.,
  tʰì-nɛ́-kʰúː-ɛ̀-i (tènejúe) [definite pronoun] ‘that aforementioned side of the river’
tújkénúe-  tʰù́kʰù́nú-ɛ̀- ‘pertains to the beginning’, e.g.,
  tʰù́kʰù́nú-ɛ̀-x pʰì (tújkénúejpi) [adjective] ‘the first (SgM)’,
  tʰù́kʰù́nú-ɛ̀-ʦʰì (tújkénúetsíi) [adjective] ‘the first place’
tsaa-  tsàː ‘one’, e.g.,
  tsàːpʰì (tsaápi) [quantifier] ‘one (SgM)’,
  tsàːmì (tsamì) [quantifier] ‘one vehicle of transportation’
APPENDIX C. A LIST OF BOUND ADJECTIVAL STEMS

tsáhojtsɨ- ʦʰá-ʔòˣʦʰɨ́-‘five (lit. one hand),
  ʦʰá-ʔòˣʦʰɨ́-hiʦʰó-βà (tsáhojtsɨjţjóvá) [quantifier] ‘five lines’
tsanéemé- ʦʰànɛ́-ɛ̀mɛ́-‘the same size as’, e.g.,
  ʦʰànɛ́-ɛ̀mɛ́-nè (tsanéeméne) [adjective] ‘thing of the same type’,
  ʦʰànɛ́-ɛ̀mɛ́-mì (tsanéemémì) [adjective] ‘vehicle of transportation of
  the same type’
tsánejcúe- ʦʰá-nèkʰú-ɛ̀-‘one side of’, e.g.,
  ʦʰá-nèkʰúɛ̀kpà (tsánejcúewa) [adjective] ‘one side of the slab-like
  thing’
tsii- ~ ʦi- ~ tsii- ~ ʦi()- ~ ʦi()- ‘other’, e.g.,
  ʦʰi-ːɲɛ̀ (tsiíñe) [indefinite pronoun] ‘other thing’,
  ʦʰí-ːmî (tsiháámî) [indefinite pronoun] ‘other leaf-like thing’,
  ʦʰi-ːmì (tsíímì) [indefinite pronoun] ‘other vehicle of transportation’
tsíemé- ʦʰí-ɛ̀mɛ́-‘some, whichever’, e.g.,
  ʦʰí-ɛ̀mɛ́-ˣpʰì (tsíeméjpi) [indefinite pronoun] ‘someone (SgM)’,
  ʦʰí-ɛ̀mɛ́-ˣpʰá (tsíeméjpa) [indefinite pronoun] ‘whichever soup’
tsííñejcúe- ʦʰíː-ɲɛ̀ˣkʰɯ́-ɛ̀-‘other side of’, e.g.,
  ʦʰíː-ɲɛ̀ˣkʰɯ́-ɛ̀-mɨ́ːʔɛ̀ (tsííñejcúemɨ ́ ɨ ́ he)
  [indefinite pronoun] ‘pertain to the other side of the skin’
tsí-ɲé-emé- ʦʰí-ɲɛ́-ɛ̀mɛ́-‘other type of’, e.g.,
  ʦʰí-ɲɛ́-ɛ̀mɛ́-pápʲà (tsííñejcúemɨ́he) [indefinite pronoun] ‘pertain to
  the other side of the skin’
tsúúcáa- ʦʰúkʰá-à-‘pertain to the past’, e.g.,
  ʦʰúkʰá-à-xpʰî (tsúúcáajpi) [adjective] ‘the one (SgM) of old’,
  ʦʰúkʰá-à-nè (tsúúcáane) [adjective] ‘the thing out of the past’,
  ʦʰúkʰá-à-xpʰákʰò (tsúúcáajpácyo) [adjective] ‘the soup that is past
  its time’
wáhdíe- kpá’tí-ɛ̀-‘ordinary, common’, e.g.,
  kpá’tià-hà (wáhdíaja) [adjective] ‘an ordinary house’
wahdívá- kpá’tíβà-‘insignificant’, e.g.,
  kpá’-tíβà-ːnè (wahdíváne) [adjective] ‘insignificant thing’
Appendix D

A Partial List of Affixes

This appendix lists many of the principle affixes; it is by no means a complete list of affixes. Some classifiers are also included; many more are listed in appendix E.

Section D.1 lists affixes that are primarily suprasegmental. Section D.2 lists suffixes that include segmental material, possibly with suprasegmental effects. These are listed alphabetically by their spelling as written in Bora (i.e., in the “practical orthography”).

Within each entry, the information is given in roughly the following order:

1. The affix written according to the Bora writing system (with the possible exception of optional h, j or the added duration a suffix might contribute to the preceding syllable).
2. The affix written with the International Phonetic Alphabet, its tonal properties, and its variants (with mention of the environments where these occur).
3. In single quote marks, a rough characterization of the meaning of the affix. At the end, in parentheses, is the gloss used in examples.
4. In brackets, the affix’s morphotactic properties. Notation X/Y indicates that
   (1) the suffix attaches to something of category X, and
   (2) the combination of the host and affix is of category Y.
   For example, N/V means that the suffix attaches to a noun and the result of adding it is a verb.
5. Examples and further comments.
D.1 Affixes without segments

The affixes listed in this section are primarily suprasegmental, that is, indicated by tone (pitch) and vowel length (duration). Some also have segmental variants.

#σ… (that is, a high tone on the first syllable) ‘subordinate clause (indicated by $\hat{s}$ over the vowel)’ [V/N, V/V_{subordinate}]

\[
\begin{array}{c}
\# \\
# \\
\end{array}
\begin{array}{c}
V \\
\Rightarrow \\
V_{[+\text{subordinate}} \\
\end{array}
\begin{array}{c}
\sigma… \\
\hat{\sigma}… \\
\end{array}
\]

-\(\text{l}\)µ ‘emphasis (emph)’. This always results in -\(\text{l}\)\(\hat{\text{h}}\) with adjacent, homorganic vowels.\(^1\) It only occurs at the end of an utterance-final verb. For an example, see figure 14.2, page 341.

-\(\text{l}\)\(\Rightarrow\) ‘future’. See -i ~ -\(\text{l}\)\(\Rightarrow\), page 429.

-\(\text{l}\)\(\text{l}\)µ ~ -\(\text{l}\)\(\text{l}\)\(\text{p}\)‘remotepast (rem)’. [V/V, N/N, Adj/Adj, Adv/Adv (second position clitic)] There are two forms:

1. The most frequent form is -\(\text{l}\)\(\text{h}\), that is, a high tone imposed on the host’s final syllable, followed by a copy of the final vowel with low tone.\(^2\)

(1065) Aanée úmîvaâbe.
\[\hat{\text{thm}}-\langle\emptyset\rangle-\text{rem flee}-\langle\text{SgM}\rangle\]

(1066) a. Mîtyamée tsááhi.
   b. Mîtyaméyáa tsááhi.
   a. mîṣ\(\text{h}\)â-\(\text{m}\)e-\(\text{h}\) ùmîβà-\(\text{p}\)é ‘Many came long ago.’
   b. mîṣ\(\text{h}\)â-\(\text{m}\)é-\(\text{β}\)à-\(\text{ȃ}\) ùmîβà-\(\text{p}\)é ‘Many came long ago
   many-\langle\text{AnPl}\rangle-\text{rem come (it is said).’}

2. The other form of the future is -\(\text{l}\)\(\text{l}\)\(\text{p}\)‘, as in 1067 (which is similar to 1110):

\(^1\)One could argue that the form of this suffix is simply -\(\text{h}\) and that -\(\text{l}\)\(\text{h}\) is the result of FLTS.

\(^2\)This form of the remote past suffix may be simply -\(\text{l}\)\(\text{l}\)\(\text{h}\), that is, a low tone is imposed on the host’s penult, thereby causing the host’s final syllable to bear high tone; however, there are possible counter-examples which make us think that this may be one of the rare cases where a suffix imposes a high tone.
D.2 SUFFIXES WITH SEGMENTS

The suffixes listed in this section add phonological segments. Many also contribute tone (pitch) and/or vowel length (duration).

-ami - (V/V, N/N, Adj/Adj, Adv/Adv)

(1069) kʰàːpʲɛ́-àmì (¿Caabyéami?) ‘Which?!(I can’t believe it!)’

-ba #- (V/V). See the tone derivation of ó kʰàːjó-pá-ʔì in figure D.1 as well as those of figure 4.3 (page 120).

Figure D.1 TD: ó ca:yóbáhi

This suffix makes its host’s initial syllable heavy; see section 5.7.3.

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-ca(·) -kʰa ‘bid for affirmation (affirm)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1071) ¿A úca ú májchoó?
   à ú-kʰá ú má-xʧʰó-ó-ʔì ‘Are you going to eat it?’
yʔn you-affirm you-eat-fut-(t)

In 1072 -kʰáá comes about by the addition of -: ‘emphasis’ and the application of FLTS.

(1072) ò:-kʰáá (Oócaá.) ‘I’
   I-affirm-emph

-co -kʰo ‘implore (implore)’ [V imperative/V (used only with imperatives)]

(1073) iːkʰúuí tʃʰà:-kʰò (Īfcuí tsaáco.) ‘Hurry up and come!’
   quick come-implore

-coba ~ -cyoba -kʰópa ‘big (aug)’ [N/N, Adj/Adj]

(1074) kpáʾpʰíː-kʰópa (wájpíčyoba) ‘big man’
   man-aug

(1075) mítʰámɛ́-kʰópa (mítyámécoba) ‘a great many’
   many-aug

Figure D.2 TD: llo:rácobámu

-llo:ra parrot
   L : lexical
      : .coba augment
      : : L | lexical
      : : : +
      : : : : L_mu plAn
      : : : : : :
   : : : : : L FDLT
   : : H : H : DHT
   : : : : :
   llo:rá-cobá-mu ‘big parrots’

-cooca -kʰó:kʰa ‘when (when)’ [V subordinate/Adv]

(1076) O tsáácooca úúma ó ihõesyaáhi.
   ò tsʰá:-kʰó:kʰa úː-mà ó iʰúː-βà-á-ʔì
   I come-when you-with I mouth-have-fut-(t)
   ‘When I come, I will speak with you.’

-cu -kʰui ‘singular transitive (sTr)’ [V/V]

Example 1077a implies multiple acts of swallowing because meʔto ‘swallow’ is inherently multiple transitive. By contrast, in 1077b the addition of -kʰui ‘sTr’ makes the verb singular transitive, so indicates a single act of swallowing.
(1077) a. Tsúúca taábójɨ́íne ó mehdóhi.
    b. Tsúúca taábójɨ́ ó mehdúcúhi.

a. ʦʰɯ́ːkʰàtʰàːpó-hɨ́ː-nɛ̀ ómɛ̀ˀtó-ʔì 'I've already swall-
    already cure-(disk)-pl I swallowed-(t) owed the pills'

b. ʦʰɯ́ːkʰàtʰàːpó-hɨ́ ómɛ̀ˀtɯ́-kʰɯ́-ʔì 'I've already
    already cure-(disk) I swallowed-sTr-(t) owed the pill.'

-ːcu ~ -ːcuu ~ -ːcyu  -k⁽ʲ⁾ʰɯ́ ‘dual (du)’ [N\textsubscript{inanimate}/N, Adj/Adj]

  úmɛ̀-ʔɛ́-ːkʰɯ̀ (úmehéécu) ‘two trees’
  tʰɛ́-nɛ̀-ːkʰɯ̀ (téneécu) ‘these two things’
  mɪ́-nɛ̀-ːkʰɯ̀ (míñéécuú) ‘two things’
  two-(ø)-du
  kʰómì-k⁽ʲ⁾ʰɯ̀ (cómicyu) ‘two towns’
  ìmáá-ktáː-ːkʰɯ̀ (ímiwàácu) ‘two good slab-like things’
  good-(ø)-(slab)-InDu

-cunu ~ -cyunu  -k⁽ʲ⁾ʰɯ́nɯ́ ‘multiple action (mIn or mTr)’ [V/V]

(1078) Píívámeva dsɨɨnécunú díbye déjuvu téhullévu.

  pʰíːβá-mɛ̀-βà tsîːnɛ́-kʰùmú-²
  numeros-(AnPl)-rpt run-mIn-(t)

  tíːpʰé tɛ́hɯ̀-βɯ̀ tʰɛ́-ʔɯ̀ʧɛ́-βɯ̀
  that-(SgM) behind-goal that-(yonder)-goal
  ‘Many ran behind him to that place.’

-di ~ -hdi  -¹⁽²⁾ti ‘negative imperative (neg)’ [V/V] For examples see sec-
  tion 13.4 and 237, page 132.

-di ~ -hdi  -¹⁽²⁾ti ‘animate (anim)’ [N/N, N/N\textsubscript{case}] See example 14, page
  31. In figure D.3, note that in the derivation of kʰáːnlɪ-tí-βɯ̀ the \( ¹ \) of -ti is
  delinked by the \( ¹ \) of -βɯ̀ ‘goal’ whereas in the derivation of ámánà-tí-tʰɯ́u it
  blocks the \( ¹ \) of -tʰɯ́u ‘source’:
APPENDIX D. AFFIXES

ca:ni father amana porpoise
H | lexical : H | lexical
: L_di animate : L_di animate
: | : : : +
: = L_vu goal : L_tyu source
: H : H : H : DHT
cá:ni-di-vu ‘toward father’ ámána-di-tyu ‘from the porpoise’

Figure D.3 TD: cá:nídīvu, ámánadītyu

-ŭ́ ᶤva -tiibá ‘type of (type)’ [classifier] (or possibly [N/N]).

(1079) ¿Ĭ́ːnè́-βú ú tsivá ehdî́ ʰβà-ˀ éʳ'-túβà-nè
what-[ø]-goal you bring-[t] that-[type]-[ø]
‘To where are you bringing that kind of thing?’

-du ~ -dyu ~ -hdu There are two cases. Both mean ‘likeness, similarity, comparative’ but they differ in their tonal properties and distribution.

1. -L(ˀ)t(ʲ)ɯ ‘likeness, similarity, comparative (like)’ [N/N_{case}].
   (1080) kʰɛ́ːmɛ̀-tɯ̀ (kéémedu) ‘like an old man’
   tí-ːpʲɛ̀-tɯ̀ (díbyedu) ‘like him’
   kʰánámːà-tɯ̀ (cánáámadu) ‘like salt’
   (1081) tí:  @ tsʰiːhú-tɯ̀ (dáftʃʃjudu) ‘like your mother’
   your mother-like
   (1082) ŧ-ʔtɯ̀ tíːpʲɛ̀ (Ohdu diibye.) ‘He is like me.’
   I-like that-[SgM]

When -L(ˀ)t(ʲ)ɯ follows a monosyllabic classifier, it does not ordinarily delink the low imposed by that classifier on the preceding noun, e.g., úmɛ́ʔɛ̀-kpá-tɯ̀ (tree-[slab]-like) ‘like a slab-like thing’. Even if that monosyllabic classifier’s ˀ is blocked, the ˀ of -Lɯβɯ(-uvu) ‘maximal’. The tones of the host depend on the number of syllables. The initial tone is always high because the verb is subordinate (indicated ˢ). Hosts with more than two syllables bear the suffix-imposed ˀ on the penult.

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However, bisyllabic hosts unexpectedly bear a low tone on their final syllable. (It is as though the suffix’s ₁, having been blocked by the subordination tone, docks on the host’s final syllable.) See the following chart and the examples that follow it.

<table>
<thead>
<tr>
<th>Host Tones</th>
<th>TONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 syllable</td>
<td>₁ ₀-tu</td>
</tr>
<tr>
<td>2 syllables</td>
<td>₂ ₀₀-tu</td>
</tr>
<tr>
<td>3 syllables</td>
<td>₂ ₀₀₀-tu</td>
</tr>
<tr>
<td>4 syllables</td>
<td>₂ ₀₀₀₀-tu</td>
</tr>
</tbody>
</table>

(1083) nɛ́-²tù (néhdu) ‘like saying’

(1084) tóⁱkʰâ-²tù (íjcyadu) ‘like being…’
fall (one after the other)’

(1085) Dibye méénudu tsá o méénutúne.

‘I do not do what he does.’

(1086) kʰó-βà-ᵲʦʰó-tù (cóvajtsódu) ‘like burning it’

(1087) iwáájácutsódu

‘having informed (someone)’

Figure 3.27, page 85, shows that -₁tu ‘like’ can delink the ₁ of -₁uβtu ‘maximal’. -e -ė ‘pertain to (per)’ [Nbound/N Adj/Adj, must be followed by a classifier]

(1088) Diityéejpi áánuú.

‘This one (SgM) is one of them.’

(1089) ímibájchéewa

‘slab (plank,…) pertaining to those that are fixed (e.g., the planks resting on them)’

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APPENDIX D. AFFIXES

(1090) a. Diéllevu tsaálle.
    b. Diélledívú tsaálle.
        a. tí ¡ tʃe-βüú
        you place-goal
        b. tí:-ɛ-ʧe-tʃi-βüú
        you-per-(SgF)-goal
    a. ‘He came to where you were.’
    b. ‘He came to your female relative.’

-eme  ᶭeme ‘similar to (sim)’ [N/N, Adj/Adj, must be followed by a classifier]

(1091) tí:-pɛ́-ɛ́mɛ́-x²pʰì (dííbyéeméjpi) ‘one like him’
    that-(SgM)-sim-(SgM)

(1092) îwáeméwa
    í-kpá-ɛ́mɛ́-kpà
    ‘a slab (plank, bench, table, self-(slab)-sim-(slab) machete,...) like this one’

-haaca  ᶠ1?a(ha) ‘realize (realize)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1093) Diibyéha tsáájucóóhi.
    tí:-pɛ́-ʔà
    tsʰá:-húkʰó-ʔì ‘He, I see,
    that-(SgM)-realize come-now-(t) is now coming.’

(1094) tí:-pɛ́-ʰkʰà (Diibyéhaáca.) ‘It is HE.’
    that-(SgM)-realize

The tone derivations of tʰɛ̀ːʔí-ɯ̀pá-ʔà and kpàʰí-ùpá-ʔà:kʰà follow:

<table>
<thead>
<tr>
<th>te:hi river</th>
<th>wajpi man</th>
</tr>
</thead>
<tbody>
<tr>
<td>L__._uba probable</td>
<td>L__._uba probable</td>
</tr>
<tr>
<td>: : L : lexical</td>
<td>: : L : lexical</td>
</tr>
<tr>
<td>: : L__._ha realize</td>
<td>: : L__._ha:ca realize</td>
</tr>
<tr>
<td>te:hi-ubá-ha</td>
<td>wajpi-ubá-haáca ‘probably a man’</td>
</tr>
</tbody>
</table>

-ha(a)  ᶠ1?a(ha) ‘challenge veracity, curiosity, perplexity (verify)’
[V/V, N/N, Adj/Adj, Adv/Adv, only used with questions] See section 11.2.7.
D.2. SUFFIXES WITH SEGMENTS

(1095) \{ \text{mɯ̀ːpá-ʔàhà} \} \{ \text{¿Muubáhaja?} \} \{ \text{¿Muubáha?} \} \ ‘Who might it be?’

-hajchíjyu ~ -hajchi: \ -ʔaⁿh₇(h₈w) \ ‘if, conditional (if)’ [V\text{subordinate/Adv}]

(1096) Û ímílléhajchíí úúma ó peéhi.
     ù ù ímítʃe⁻ʔaⁿh₇: ù⁻mà ó pʰè⁻ʔi
     you want-if you-with I go-fut-⟨t⟩
     ‘If you want, I (will) go with you.’

(1097) Májo u ímílléhajchíjyu.
     máhò ù ímítʃe⁻ʔaⁿh₇: iht'ù
     let’s.go you want-if
     ‘Let’s go, if you want.’

-haⁿe \ -ʔaⁿe ‘various, collection, set (var)’

1. \text{[N/N, Adj/Adj]}

(1098) ijáme⁻ʔaⁿe (iyámeháñe) ‘various kinds of animals’
     mʰámúːná⁻ʔaⁿe (mʰámúːnáháñe) ‘types of people’
     pʰiːm’e⁻ʔaⁿe (pʰimyeháñe) ‘type of ants’
     núⁿé⁻ʔaⁿe (núnhéháñe) ‘caterpillars (various types)’

(1099) há⁻ʔaⁿe (jááhañe) ‘houses (hamlet)’

(1100) nítʃá⁻ʔaⁿe (nítʃyáhañe) ‘various rains’ (phrase final)
     kʰɔːχí⁻ʔaⁿe (kʰójíháñé) ‘various days’ (nonfinal)

2. \text{[V\text{nonfinite}/N]} \ -ʔaⁿe ‘collection, set (var)’ The genitive tone will dock on the nonfinite verb’s final syllable unless blocked by the nonfinite tone. This is clearest when the verb has three or four syllables:

(1101) pʰiːkʰá⁻ʔaⁿe (pʰicyááveháñe) ‘gatherings’
     gather-sln var

When the verb is bisyllabic, the nonfinite tone occurs on the first syllable, which blocks the genitive tone from docking on its first syllable. However, the first syllable of ʔaⁿe will bear tone as though the genitive low tone were present:

(1102) kpʰ₇kʰó Addon ʔaⁿe (wajcóháñe) ‘various kinds of flowers’
     tʃ’emé Addon ʔaⁿe (cheméháñe) ‘various sicknesses’
     ātô Addon ʔaⁿe (adóháñé) ‘beverages’

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The noun phrase headed by ʔaɲɛ ‘set’ may be possessed, as in 1103 and 1104:

(1103) ímyéénujcátsiháñé
    í   G  [mˈɛːnu–N–kʰátsʰi G  ʔaɲɛ] ‘their battles’
    self do-recip var

(1104) méimítyuháñe
    mɛ́ G  [imí-tʰu  G  ʔaɲɛ ] ‘our evil deeds’
    SAP good-neg var


(1105) Anéhde waáca dipye.
    à-nɛ́-ˀtɛ̀ kpàá-kʰà tì-pʲʰɛ́ ‘OK, then, you
    thm-(ø)-concede permit-affirm you Imp-go may go.’

-hnécu  -⑬?nekʰu ‘immediate result (result)’ [Vactive/Adv]

(1106) Íñehi owátsahiyúcú baavu callájahnécu.
    íɲɛ̀-ʔì ókpáʦʰà-ˀhʲɯ́kʰɯ́-ˀpàː-βɯ̀ aguaje-⟨cluster⟩ I cut-sTr-⟨t⟩ below-goal
    kʰàʧáhà-ˀnɛ́kʰɯ̀ scattered-result
    ‘I cut the cluster of aguaje palm fruit down with the result that it
    scattered all over.’

-hi  -⑬?t⁽i⁾ ⟨t⟩ [classifier] (This occurs on main clause verbs when the
    subject is not a classifier.) Utterance medial the form is -⑬? while utter-
    ance final it is -⑬?i. -hi is generally written sentence finally. Sentence
    medially the glottal stop is pronounced but not written; the final high tone
    adequately indicates its presence.

(1107) a. Táñaalle dsijcó íwajyámu.
    b. Táñaalle íwajyámú dsijcóhi.

    a. [tʰá G  ɲaː-tʃɛ́] tsi’kʰó-ˀ [í G kpáŋjámʊ̀] my sib-⟨SgF⟩ sew-⟨t⟩ self clothes
    b. [tʰá G  ɲaː-tʃɛ́] [í G kpáŋjámʊ̀] tsi’kʰó-ʔì my sib-⟨SgF⟩ self clothes sew-⟨t⟩
    a,b. ‘My sister sews her clothes.’

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This is an affixal form of the verb ‘be’; see section 5.10.

1. [V/V] -ʔiˣkʲʰa ‘habitual (be)’ In 1108 the ₁  is blocked by the host’s lexically marked low tone:

\[\text{(1108) Paįjyuvaře wakímyeįhjcyaaíbe.} \]
\[pʰà-ihJu-βá-rɛ́ kpàkʰimʲɛí-ʔiˣkʲʰà-pɛ́ ‘\text{He works all-⟨day⟩-rpt-only work-sub be-⟨SgM⟩ every day.}’ \]

Note that in 1151, page 436, -ʔiˣkʲʰa- does not seem to indicate ‘habitual’ specifically, but a more general imperfective aspect.

2. [N/V] -ʔiˣkʲʰa ‘characteristic (be)’

\[\text{(1109) Diibyéhjcyaa ávyeta ímí.} \]
\[tǐ-ːpʲɛ́-ʔiˣkʲʰà-βɛ́tʰàímí ‘\text{He is always very good.}’ \]

that-⟨SgM⟩-be very good

-hja -l ʔha ‘not witnessed (nwit)’ [V/V, N/N, Adj/Adj, Adv/Adv]

\[\text{(1110) Aanéhjápe peebe ihjjávu.} \]
\[àː-nɛ́-ʔha-pʰɛ́ [iʔ hˈá ]-βù thm-⟨event⟩-nwit-rem go-⟨SgM⟩ self house -goal ‘\text{So he went to his house (but I did not see it).}’ \]

-i ∼ -l  (or equivalently, -l  ) ‘future (fut)’ [V/V] There are two forms of this suffix.

1. When followed by a suffix other than -l  , the form is simply -i, as illustrated in figure D.5a and b.

2. When followed by -l  , the future suffix is indicated by (1) a low tone on the host’s final syllable (delinking any conflicting low tone that might be present, as in 271b), and (2) lengthening the host’s final vowel; the verb so formed almost always occurs phrase finally so the lengthened vowel undergoes PLTS and thus the host-future-⟨t⟩ sequence ends with L V H V'. Compare the tone derivations of p'àʦʰó-i-ʧɛ́, máxʧʰò-i-mɛ́, and máxʧʰò-ó-ʔì in figure D.5c.
APPENDIX D. AFFIXES

a. bajtso to plant  b. majcho to eat  c. majcho to eat

bájtsó-i-lle májcho-i-me májcho-ó-hi

‘She will plant.’ ‘They will eat.’ ‘I will eat.’

Figure D.5 TD: bájtsóille, májchoíme, májchoóhi

We now consider further this second form of the future suffix. First, one might think that this form of the future suffix does not need to specify ① (the low tone of the host’s final syllable) because it is imposed by the following -L ʔi (t). However, -L ʔi does not delink a conflicting low tone, as can be seen, for example, in D.1, page 421. Thus, the delinking seen in examples like 271b must be the result of a low tone imposed by the future suffix.

Second, generally suffixes that bear tones that dock on their hosts are blind to whether the host’s vowels are short or long: the tones dock on syllables, not moras. However, in the case of the long vowel created by this form of the future tense, the addition of -L ʔi counts the length as a syllable, docking its low tone on the host’s final syllable rather than on its penult.

This exception—to what is otherwise a very robust generalization—undoubtedly reflects the full syllabicity of -i, ‘future’ (perhaps simply by analogy but more likely as a reflex of a shared origin).

Third, given that -L ʔi counts the length added by the future suffix as a syllable, it is tempting to suppose that this variant of the future is ①σ, that is, the low tone to be docked on the host’s final syllable and the addition of a syllable. If we assume—as seems quite reasonable—that the syllable is realized in the most minimal way, that is, as a vowel, and that this vowel would draw its (place and manner) features from the preceding vowel, then this second form of the future is accounted for without using PLTS.

However, compare 1111a. and b. The first treats the verb as phrase final, thus undergoing PLTS, as described above, whereas the second treats the verb as phrase internal, thus failing to undergo PLTS. Thus, to account for this we assume that the future suffix adds length (a mora) and not a syllable.
(1111) a. Ó májchóteé tahjyávu.
   b. Ó májchótee tahjyávu.
   \[\{\begin{array}{l}
   \text{a. máxʧʰó-tʰɛ̀-ɛ́} \\
   \text{máxʧʰó-tʰɛ̀-ː} \\
   \text{tʰá } \text{ hiá-βûu}
   \end{array}\} \text{ my house-goal}
   \]
   ‘I will go to eat at my house.’

-\(i\) \sim -iíkye \sim -(\text{①}) \circ \text{i:kʰē} ‘projected time (PT)’ [V/V, N/N, Adj/Adj, Adv/Adv] (See section 5.9.3.3.) The full form \(-\text{i:kʰē}\) is used utterance finally or if another clitic follows; otherwise (i.e., utterance medially with no following clitic) the short form \(-i\) is used.

(1112) tsʰʰáʔá-i:kʰè \text{(tsáháiíkye)} ‘not yet’
   not-PT

(1113) Tsáhái dibye tsáátune.
   tsʰʰáʔá-i ti-pʲɛ̀ tsʰáː-tʰɯ̀-nɛ
   ‘He has not yet come.’
   not-PT that-(SgM) come-neg-(n)

See also 794, page 314.

-icho-\(H\)itʧʰ‘sort of, a little bit (ish)’ [Adj/Adj] See section 7.8.5.2.

-ijyu-\(H\)ihʲɯ ‘at that time (time)’ [V subordinate/NP]

(1114) Taábóóbé oke tááboó cóómívu o pééijyu.
   tʰàːpó-ːpɛ́ ò-kʰɛ̀ tʰáːpò-ó-
   cure-(SgM) I-objAn cure-fut-(t) town-goal I go -\text{⟨time⟩}
   ‘The doctor will treat me when I go to town.’

-\(i\)nu-\(\text{①}\)○iɲɯ ‘go after doing (do.go)’ [V/V]

(1115) Íllure oke pájtyéĩnuubé.
   ìʧù-rɛ̀ ód-kʰè pʰàˣtʲʰɛ́-îɲɯ̀-pɛ̀
   ‘He passed in front like.that-only I-objAn pass-do.go-(SgM) of me, leaving me.’

-\(i\)yo \sim -iya-\(\text{①}\)○i-yo \sim -\(\text{①}\)ya (fut-frs) ‘should, would’ [N/N, follows a classifier if present] (See example 1070.)

-j-\(\text{①}^{x}\) ‘vocative (voc)’ [N/N_{case}, V/V]

(1116) tʃi:ʔl-\(\text{x}\), tʃ-ʰàá (Llíihij, díchaá.) ‘Son, come!’
   son-voc youImp-come
-jcatsi  \(^{h}at^{h}i\) ‘reciprocal (recip)’ [V/V]

(1117) Ūhbájcatsímútsí méwá hallútu.

\[^{h}at^{h}h^{i}-mútsí měkpá \(\odot \)^{h}júú-t\(^{h}h^{i}\)
argue-recip-[DuM]  woman  top-sou
‘They argued about the wife.’

-je  -hoe ‘come after doing (do.come)’ [V/V] Contrary to the generalization
that the low tones imposed by pronominal classifiers are blocked by
the low tones of relocation suffixes, in example 104, page 84, the \(\odot\)
of
-\(\odot\):pɛ \(\langle\text{SgM}\rangle\) delinks the \(\odot\) of -hoe ‘come after doing’.

-ji – -hi  -\(\odot\)(\(\odot\))hi ‘plural (pl)’ [N
\(\langle\text{N}\rangle\), Adj/Adj]

(1118) é:né-\(\odot\)hi (eenéhi) ‘those (things)’
that-(\(\odot\))-pl

(1119) ímí-t\(^{h}h^{i}\)nɛ̀-\(\odot\)hi \(\langle\text{imítyunéhi}\rangle\) ‘bad (things)’
good-neg-(\(\odot\))-pl

(1120) ímí-\(\odot\)a:mí-hi \(\langle\text{imíhaamíi}\rangle\) ‘good (books, papers,
good-(\langle\text{tree}\rangle)-\langle\text{leaf}\rangle)-pl bills,...)’

(1121) a. Mítyame tsááhi.
b. Mítyaméhjí tsááhi.

\[
a. mít^{h}h^{a}-mɛ̀ \text{ many-(AnPl)} \\
b. mít^{h}h^{a}-mɛ́-\(\odot\)hi \text{ many-(AnPl)-pl} \\
t^{h}h^{a}:t^{h}i \text{ come} \]

\[
a. \text{ ‘Many are coming.’} \\
b. \text{ ‘Many big ones are}
\text{ coming.’}
\]

-jiïva – -ji – -\(\odot\)hi:hi(\(\beta\))a ‘deny (deny)’ [\(\langle\text{V}\rangle\), \(\langle\text{N}\rangle\), Adj/Adj, Adj/Adv] The final syllable (\(\beta\)) only occurs sentence finally.

The tones for nouns and verbs are different.

1. Following a noun the form is -\(\odot\)hi:hi(\(\beta\)).

(1122) tì:pɛ-hi:hi:hi (Diibyéjíïva.) ‘It is not he.’
that-(\(\text{SgM}\))-deny

2. Following a verb (after the classifier subject) the form is \(\#(\odot)\)... -\(\odot\)hi:hi(\(\beta\)). This may delink conflicting tones, particularly those of a
preceding pronominal classifier, as illustrated in 1123.

(1123) Májchóóbejíj máítyane.

\[
máť^{h}h^{o}:pɛ-hi: \text{ eat-(\(\text{SgM}\))-deny much-(\(\odot\)}
\]

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-jkimei -³kʰᵢᵐᵉᵢ ‘behave like, to act like (act.like)’ [N/V]

(1124) ó tsʰːmːénɛ-³kʰîtreŔ?(i) (Ó tsːmːnéjkǐmei.)

I child-act.like-⟨t⟩
‘I act like a child.’

-jtane -³ᵗʰànᵉ ‘exclude, without regard for (exclude)’
[V/V, N/N, Adj/Adj, Adv/Adv]

(1125) Dítyéjtane dsǐnéébe.

tí:-tʰɛ́-ˣtʰànɛ̀ tɔːnɛ̀-pɛ ‘He ran without giving
that-⟨AnPl⟩-exclude run-⟨SgM⟩ them a thought.’

See also 809, page 316.

-juco(ː) ~ -co: We list here two closely related morphemes, the
verbal suffix -₁○hùkʰo: ‘now’ discussed in section 5.12.1.1 and the second-
position clitic -₁○hùkʰo ‘focus’ discussed in section 11.2.2.

1. [V/V] -₁○hùkʰo: ‘now, already (now)’

(1126) ð pʰɛ́-hùkʰɔ¿?-?(i) (O pɛjucóó.) ‘I go now.’

I go-now-⟨t⟩
This shortens to -kʰò: (-coo) in certain (rare) cases, as in 1127:

(1127) ítʰɛ́-kʰò-tʃɛ́-hɪ́ (Ijcyácóólejǐ́.) ‘She is no
be-now-⟨SgF⟩-deny
longer here.’

2. [N/N, Adj/Adj, Adv/Adv] -₁○hùkʰo ‘focus (focus)’

(1128) tì:-pʰɛ́-hùkʰɔ (Diibyéjuco.) ‘It is HE.’

that-⟨SgM⟩-focus
For examples, see the tone derivations in figure 3.10, page 67.

-juʃ -₁huɾᵹ ‘quick (quick-voc)’ [V_{imperative}/V] The host bears nonfinite
tone (with perhaps some exceptions) and -₁huɾ cannot delink this. There-
fore the ₁ does not dock unless the stem is at least three syllables long. 
For examples see section 14.2.2.

-ke ~ -kye -₁kʰᵢ⁰je ‘animate object (objAn)’ [N/N_{case}] This suffix delinks 
conflicting tones.

(1129) Oohǐbyeke ó aamú.

ð?i-pʰɛ́-kʰɛ́ ó aːmũ-?(i) ‘I shot the jaguar/dog.’
jaguar-⟨SgM⟩-objAn I shoot-⟨t⟩
-ki -kʰi ‘purpose (pur)’ This suffix delinks conflicting tones.

1. [V_{subordinate}/Adv]

(1130) O péé tahjyávú o májchoki.
   ò pʰčː-ʔ [tʰǎʔ hʰá] -βú
   I go-(t) my house -goal
   ò má*:tfʰó -kʰi
   I eat -pur
   ‘I go to my house to eat.’

2. [V_{relocation/V}] This is also used on the main verb following a relocation suffix, for example:

(1131) ó má*:tfʰó-tʰɛ̀-kʰì (Ó májchotéki.) ‘I go to eat.’
   I eat-go.do-pur

-lle -ləfje ‘treat like (treat)’ [N/V]

(1132) Díbyeye ó tsíimenélléhi.
   tʃː-pʰkʰɛ̀ ó tsʰ:ménɛ-ʧɛ̀-ʔì ‘I treat him
   that-⟨SgM⟩-objAn I child-treat-⟨t⟩ like a child.’

-lle -ləfje ‘try (try)’ [V/V]

(1133) ¿Ɨ́veekí oke ú méénulléhi?
   iβɛːkʰi ò-kʰɛ̀ ú mɛːnũː-ʧɛ̀-ʔì ‘Why are you trying
   why I-objAn you hit-try-⟨t⟩ to hit me?’

(1134) ò-kʰɛ̀ mɛːnũː-ʧɛ̀-ːpɛ̀ (Oke mééñulleébe.) ‘He tried
   I-objAn hit-try-⟨SgM⟩ to hit me.’

-lle -ləfje ‘singular feminine ⟨SgF⟩’ [classifier] This suffix may delink conflicting tones except those of a relocation suffix.

(1135) má*:tfʰó-ʧɛ̀ (Májcholle.) ‘She eats.’
   eat-⟨SgF⟩

-llíhye ~ -llíhye ~ -llii ~ -llii ~ -ʧiː(ʔe) ‘reason, motive, purpose (motive)’ [N/N_{case} V_{subordinate}/Adv]

(1136) Ehdu méénuube tsí:juullíhye.
   ʔɛː-tù mɛːnũː-ːpɛ̀ tsʰːhúː-ʧiːʔe ‘He made it like that
   that-⟨like⟩ make-⟨SgM⟩ mother-for for his mother.’

In 738, page 299, -ʧiː ‘motive’ forms part of a sentence-initial connective.

In 1131 the low tone of -kʰi ‘purpose’ is blocked by that of -tʰe ‘go to do’.
D.2. SUFFIXES WITH SEGMENTS

Section 10.7.2 presents examples where -ʧù ‘motive’ follows a subordinate clause (always preceded by -mɛ ⟨event⟩).

-ma -ō\ma ‘instrument, accompaniment (with)’ [N/N\text{case}] This suffix delinks conflicting tones.

(1137) Táñāhbema ó tááváteéhi.
[tʰá G ñá-ʧpɛ G mā tʰáβā-tʰɛ̀-ɛ-ʔi] my sib-⟨SgM⟩ -with I hunt-go.do-fut-⟨t⟩
‘I go with my brother to hunt.’

(1138) Táñaalle óóma dsɨjcó táwajyámu.
[tʰá G ña-ʧɛ̀] óː-ːmà tʰá kpah\ˈámù my sib-⟨SgF⟩ I-with sew-⟨t⟩ my clothes
‘My sister sewed my clothes.’

-me ~ -mye ‘animate plural’
1. [V/V\text{complete}] -ō\m⁽ʲ⁾e ⟨AnPl⟩ This suffix may delink conflicting tones except those of a relocation suffix.
   (1139) māxʧʰó-mɛ (Majchóme.) ‘They are eating.’
   eat-⟨AnPl⟩

2. [N\text{animate}/N\text{plural}] -ō\m⁽ʲ⁾e ⟨AnPl⟩ -me (-me) ⟨AnPl⟩ may form the plural of certain nouns:
   (1140) lʰ:iː-pʰɛ (jaguar-⟨SgM⟩ oohííbye) ‘jaguar’
   lʰ:iː-mʰɛ (jaguar-⟨AnPl⟩ oohímye) ‘jaguars’
   (1141) /pʰá-mɛ-ːɾɛ/ (pámeére) ‘all of them (animate)’
   all-⟨AnPl⟩-only
   See also the tone derivation in figure 3.33, page 90.

-meï -ō\mei ‘expression of compassion or pity (poor)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1142) ¡Áyúú, ō\dátsó òáádiméi!
άjúː itátsʰó ā\ti-mëi ‘Oh! Poor him!’
oh sad that.SgM-poor

(1143) ¡Éje, òáádiméi; ū ū\βanú-ʔi!
êhè , ā\ti-mëi ; ū ūβanú-ʔi!
Look that.one-poor you make.suffer-⟨∅⟩
‘Look at that poor man! You really made him suffer!’

-meï -m⁽ʲ⁾eï ‘reflexive, passive (r/p)’ [V/V (valence reducing)]
(1144) kpá\ˈtát-nù-mëː-ːpɛ (Wáhda\ˈnúmeéibye.) ‘He cut himself.’
cut-mTr-ːp-⟨SgM⟩

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Although the verb of 1144 bears -nu ‘multiple transitive (mTr)’, it generally refers to a single cut, not to many cuts nor to cutting repeatedly.

-\text{mu} -\text{m}^{(\text{plAn})} ‘plural (for animate nouns) (plAn)’ \text{[N}_{\text{animate}}/\text{N}, \text{Adj}/\text{Adj]}

(1145) mëni-m\text{mû} (mëni-mimu) ‘peckery’
peckery-plAn

(1146) nífûúkpà-m\text{mû} (nífûúwamyu) ‘deer (plural)’
deer-plAn

-\text{mutsi} -\text{m}^{(\text{DuM})} ‘dual masculine \langle \text{DuM} \rangle’ \text{[classifier N/N]}\text{\textsuperscript{5}} This suffix may delink conflicting tones except those of a relocation suffix.

(1147) ímípá\text{xt}^{(\text{DuM})}-\text{múts}^{(\text{DuM})} (ímíbájchomútsi) ‘the two (DuM) fixed (it)’
fix-\langle \text{DuM} \rangle

(1148) Ihjyúvájcatsímútsi.

\text{i}^{(\text{DuM})}\text{húbá-x}h^{(\text{DuM})}\text{ats}^{(\text{DuM})}-\text{múts}^{(\text{DuM})} \text{\textsuperscript{6}} ‘Those two (males) are talking’
talk-recip-\langle \text{DuM} \rangle

-\text{mup} -\text{m}^{(\text{DuF})} ‘dual feminine \langle \text{DuF} \rangle’ \text{[classifier N/N]}\text{\textsuperscript{7}} This suffix may delink conflicting tones except those of a relocation suffix.

(1149) ímípá\text{xt}^{(\text{DuF})}-\text{múp}^{(\text{DuF})} (ímíbájchomúpí) ‘the two (DuF) fixed (it)’
fix-\langle \text{DuF} \rangle

(1150) Úmihé pañe wákîmyeímúpí.

úmî?é p^{(\text{DuF})}kप^{(\text{DuF})}im\text{ei}-múp^{(\text{DuF})} \text{\textsuperscript{8}} ‘Those two (females) inside work-\langle \text{DuF} \rangle’
work in the field.’

-naaaca \sim -\text{naa} -\text{naa}(\text{k}^{(\text{a})}) ‘while’ \text{[V}_{\text{Subordinate}}/\text{Adv] There are two forms:
Sentence finally the form is \text{-naa}(\text{k}^{(\text{a})}). By PLTS, this becomes \#\text{\textsuperscript{11}}\text{-naa}(\text{k}^{(\text{a})}).

(1151) Tsíju goocó tsíjímene tahíjcyánáaáca.

\text{ts}^{(\text{DuF})}\text{hù kòd}^{(\text{DuF})} {^{(\text{DuF})} \text{t}^{(\text{DuF})} \text{mënè} \text{t}^{(\text{DuF})}\text{hù-k}^{(\text{DuF})}\text{á }\text{-náaak}^{(\text{DuF})} \text{hù}

mother laugh-(t) child cry-sub be \text{-while}

‘The mother laughs while the baby is crying.’

Sentence medially the form is simply \#\text{\textsuperscript{11}}-\text{naa}.

\textsuperscript{5}\text{-muts}^{(\text{mu})} may be the combination of \text{-m}^{(\text{mu})} ‘plAn’ and \text{-mu} \langle \text{DuM} \rangle.

\textsuperscript{6}\text{-muts}^{(\text{mu})} may be the combination of \text{-m}^{(\text{mu})} ‘plAn’ and \text{-m}^{(\text{mu})} \langle \text{DuM} \rangle.

\textsuperscript{7}\text{-mup}^{(\text{mu})} may be the combination of \text{-m}^{(\text{mu})} ‘plAn’ and \text{-p}^{(\text{mu})} \langle \text{DuF} \rangle.

\textsuperscript{8}\text{-mup}^{(\text{mu})} may be the combination of \text{-m}^{(\text{mu})} ‘plAn’ and \text{-p}^{(\text{mu})} \langle \text{DuF} \rangle.

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-ne ~ -ñe -ı­○nè ‘singular (sg)’ [Adj_inanimate/Adj] Adj_inanimate includes adjectival, numeral and qualifier phrases.

-(:)ne ~ -(:)ñe -ı­○(:)ne ‘plural (plIn)’ [N_inanimate/N]; for example, kʰómi-ñè (cómiñe) ‘towns’ and úmɛʔɛ́-ːnɛ̀ (úmehééne) ‘trees’. The tone derivation of úmɛʔɛ́-ːnɛ̀-úmɛʔɛ́-ːnɛ̀-ʔáɲɛ̀ ‘little fields’ follows:

```
úmihé field
 : L :
 : : ._wuu dim
 : : : L : lexical
 : : : : |
 : : : : L_ne plIn
 : : : : : |
 H : : H : DHT
 | : |
úmihé-wúú-ne ‘little fields’
```

Figure D.6 TD: úmihéwúúne

See also [úmɛ́-ʔɛ̀-kpá-ːnɛ̀] (tree-⟨tree⟩-⟨slab⟩-plIn úmehewáanetu) ‘clothes pins’ in 703, and [úmɛ̀ʔɛ́-ːnɛ̀-ʔáɲɛ̀] (tree-plIn-var úmehééneháñe) ‘many diverse trees’ in figure 3.6.

-ne -ñe ⟨ø⟩ is the minimally meaningful inanimate classifier. It may be used to refer to a thing, circumstance, event, time, place,…. It is used in various morphosyntactic contexts, with some differences in the tone it imposes on its host. We will consider three cases:

1. [N_bound/N, Adj_bound/N] -ı­○ne ⟨ø⟩ may follow a noun or adjective. In this case it docks a low tone on the host’s final syllable. This is normal for a monosyllabic classifier as stated in section 6.1.4. The tone derivations of kʰópʰɛ̀-nɛ̀ ‘hard thing’ and kʰópʰɛ́-nɛ̀-úpú ‘really hard thing’ follow:

```
cohpe hard cohpe hard
 : | | : | |
 : L_ne ⟨Ø⟩ : L_ne ⟨Ø⟩
 : : : = L_uvu max
 H : : DHT H : : H : DHT
 | : |
cohpe-ne ‘hard thing’ cohpe-ne-úvu ‘really hard thing’
```

Figure D.7 TD: cohpeñe, cohpéneúvu

2. [V/V_complete] -ı­○ne ⟨ø⟩ may follow a verb as a classifier subject, as discussed in section 6.2.1. Note that in this case -ne ⟨ø⟩ docks a low tone on the host’s penultimate syllable, as in 1152, for which the tone derivation is given in figure D.8:
3. \([V_{\text{subordinate}}/N, {V_{\text{subordinate}}/\text{AdvCl}}]\). \(-\text{L}\) one may follow a subordinate verb. (Recall that the verb of a subordinate clause bears a high tone on its first syllable, as discussed in section 3.12.1.)

The subordinate clause may be a complement, as discussed in chapter 16: a subject complement, as in example 949, page 360, or an object complement, as in example 950, page 360. A case marker may follow \(-nɛ\) (event) to indicate the relationship of the subordinate clause to the higher verb, as in example 983. However, if the subordinate clause is a direct object, a case marker does not follow. The subordinate clause may be a a relative clause, as discussed in chapter 18. See, for example, 1013, page 387. Or the subordinate clause may be an adverbial clause, in which case \(-nɛ\) may refer to an event, a circumstance, a state of affairs, or such; these are glossed as (event) rather than as (\(\emptyset\)). The main and subordinate clauses may be temporally related, as in 1153, in which the event of the main clause is understood as occurring after the event indicated by the subordinate clause.

(1153) Imájchóne pêjúcoóbe.
\[\text{i màtıⁿh-o-nɛ́ pʰɛ́-húkʰô-pɛ́} \text{‘After eating, he left.’}\]
-\(\text{L}\) \(-\text{hne}\) \(-\text{L}\) \(\text{né ‘recent (rec)’} [V/V, N/N, Adj/Adj, Adv/Adv, second position clitic}\)

(1154) Ohné ó meenú.
\[\text{ô-\(\text{ʔnɛ́} \text{o mɛ́nú-ʔ(i) ‘I did it recently.’} \text{I-rec I do-\(\text{t}\)}\)}

(1155) ti-\(\text{pʰ-nɛ́} \text{mɛ́nú-ʔ(i) (Diibyéne meenú.) ‘He did it that-\(\text{SgM}\)-rec do-\(\text{t}\) recently.’}\)

\(^9\)When the subordinate clause is a relative clause, what results is really a noun phrase headed by -\(\text{ne \(\emptyset\).}\)
### D.2. SUFFIXES WITH SEGMENTS

- **nu** - refill n 'do, become, cause to be, cause to have (do)' [N/V]

(1156) Dííbyeke ó dsìıdsìnuhi.  
\[\text{ti-p}^\text{h} \text{h}_2 \quad \text{ó tsì-} \text{tsì-nú-}^\text{ʔì} \quad \text{I helped him have money.} \]
that-\langle SgM \rangle - objAn I money-do-\langle t \rangle

The tone derivations of kpáñɛ̀ˀhɨ́-nú-í-já-ʔì and kpáñɛ̀ˀhɨ́-nú-í-jó-tʃɛ̀-kʰɛ̀ fol-low:

<table>
<thead>
<tr>
<th>wañehjí festival</th>
<th>wañehjí festival</th>
</tr>
</thead>
<tbody>
<tr>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>: L__._nu cause to have</td>
<td>L__._nu cause to have</td>
</tr>
<tr>
<td>: :</td>
<td>: :</td>
</tr>
<tr>
<td>: : : : :</td>
<td>= L_ke objAn</td>
</tr>
<tr>
<td>: : : : :</td>
<td>‘to make a festival (in honor of someone)’</td>
</tr>
<tr>
<td>: : : : :</td>
<td>‘to the one to be honored with a fiesta’</td>
</tr>
</tbody>
</table>

Figure D.9 TD: wáñehjínúiýáhi, wáñehjínúiýóleke

- **pe** - refill n \( \text{p}^\text{h} \text{h}_2 \sim \text{p}^\text{i} \text{h} \) See remote past, page 420.

- **pejtso** - refill n \( \text{p}^\text{h} \text{h}_2 \text{ts}^\text{h}_2 \) o ‘upon encountering (meet)’ [V/V]

(1157) Ihjyávu óómííbyeke ó úhbápejtsóhi.  
\[\text{[ [ i } \text{ h}^\text{h}_2 \text{ ]-βùu self house -goal }\]

\[\text{ó:mí } \text{-p}^\text{h}_2 \text{ ]-k}^\text{h}_2 \text{ \ ó úr}^\text{p}_2 \text{-p}^\text{h}^\text{h}_2 \text{ts}^\text{h}_2 \text{ó-}^\text{ʔì}. \]

arrive -\langle SgM \rangle - objAn I upbraid-meet-\langle ŋ \rangle

‘I bawled himi out when hei returned to hisi house.’

Example 531 is similar.

- **pi** - refill n \( \text{p}^\text{i} \text{h} \) ‘excessively, habitually (excess)’ [V/V]

(1158) Tájtsììméné cuwápíhi.  
\[\text{th}^\text{h}_2 \text{ts}^\text{h}_2 \text{ménén ke } \text{k}^\text{h}_2 \text{u}^\text{h}_2 \text{pá-} \text{p}^\text{i} \text{-}^\text{ʔì} \quad \text{My baby always sleeps.} \]

child sleep-excess-\langle t \rangle

In 1159 the host’s penult is not low (as expected) because this word is a predicate adjective:

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APPENDIX D. AFFIXES

(1159) kʰúká-pʰí-ʔ̊ uúú (Cúwápí uú.) ‘You sleep too much.’ sleep-excess-⟨t⟩ you

-ɾa See -ro ~ -ɾa ~ -ya ~ -ya ‘frustrative, contraexpectation (frs)’

-ɾe ~ -ye -⟨ː⟩ɾe ~ -⟨ː⟩ɾe ‘only’
[N/N, Adj/Adj, Adv/Adv, V\_nonfinite/V\_nonfinite]

-⟨ː⟩ɾe ~ -⟨ː⟩ɾe ‘only’ does not bear any inherent tones but, by adding a syllable, could cause a violation of the *LLX constraint. This is avoided in the following ways:

1. If the word to which -ɾe ~ -ɾe is added would have ended LL#, then—whether it is verbal or nominal—the tones become LH-ɾe.

2. If the word to which -ɾe is added would have ended HL#, then those tones remain: HL-ɾe.

With some exceptions, -⟨ː⟩ɾe ~ -⟨ː⟩ɾe lengthens the preceding vowel only if the word does not have a heavy syllable earlier in the word. Compare, for example, káłá-pʰí-jè ‘man only’, in which there are no long vowels before -ɾe and it does lengthen the preceding syllable, with the following words in which there are earlier long vowels and -ɾe does not lengthen the preceding vowel: húːβá-rè ‘trail only’, kʰókʰá-ɾe ‘only now’, tíː-ʃɛ́-ɾe ‘they only’, tíː-ʃɛ́-ɾe ‘she only’.

-ɾi ~ -yi -⟨ː⟩ɾi ~ -⟨ː⟩yi ‘inanimate oblique (oblIn)’ [N/N\_case]

(1160) ɨnɨɨtsúwari wákímyeííbye.

ɨnɨːʦʰɯ́-kpà-ɾì kpákʰímʲɛ̀í-ːpʲɛ ‘He works with his machete-slab-oblIn work-(SgM) machete.’

(1161) Mítyane imájchóneri chémeébe.

mítʲʰà-nɛ̀í máˣʧʰò-ɾá-ʔì áː-ɾò-ːpɛ̀ ʦʰ H aˀ much-⟨ø⟩ self eat -(⟨ø⟩)-oblIn sick-(SgM)

‘He got sick because he ate too much.’

-ɾivaco #őz…-ɾibakʰo ‘resulting position (result.posit)’

-ɾo ~ -ɾa ~ -ya ~ -ya ‘frustrative, contraexpectation (frs)’
[V/V, N/N, Adj/Adj] Note that in 1162 and 1163 the syllables preceding -ɾo and -ya ‘frustrative’ bear low tone:

(1162) Mítyane ó májchorá. Áárobe tsá o újcávatú.

mítʰànɛ̀é ó máxʧʰò-ɾá-ʔi áː-ɾò-ːpɛ̀ tsʰɔ́ much I eat-frs-(⟨t⟩) thm-frs-(SgM) not

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D.2. SUFFIXES WITH SEGMENTS

D.2.1. SEGMENTS

(1163) Ó májchóiyáhi.
ó máʼtfʰó-í-jà-ʔì ‘I want to eat (but there is nothing).’
I eat-fut-frs-⟨t⟩

-ʈʰro ~ -ʈʰra ‘frustrative’ delinks conflicting tones; see figures 3.30 and 3.31, page 87 and example 1164, in which -ʈʰro ‘frustrative’ delinks the 1 from the penult of -ʈʰʊkʰo ‘focus’:

(1164) tʰiːpʰɛ́-hʊkʰɔː-ɾo¹⁰ (Diibeyjúcoóro.)
that-(SgM)-focus-frs
‘It is HE (but that does not matter).’

However, apparently -ʈʰro ~ -ʈʰra ‘frustrative’ does not delink a root’s lexically marked tone, as shown by the tone derivations of ɨ́ˀβɛ̀tʰɛ́-ɾá-ʔì and ɨ́ˀβɛ̀tʰɛ́-ɾó-nɛ̀ in figure D.10:

-rect-ʈʰe ‘go to do (go.do)’ [V/V] This suffix delinks conflicting tones.

(1165) Májchotéébé ihjyávu.
máʼtfʰó-ʈʰɛ́ːpɛ́ [iʃʰ ʰá ]-βù ‘He went home to eat.’
eat-go.do-(SgM) self house -goal

-rect ~ -jte -ʈʰxe ~ -ʈʰe ‘animate plural (AnPl)’ [N/N]

(1166) bʰàː-ʈʰè (tsaáte) ‘some (AnPl)’
one-(AnPl)

¹⁰We do not know why the penultimate vowel is long in this word.
(1167) ti:-tʰẽ (diitye) ‘those (AnPl)’
    tsʰà:-tʰẽ (tsaatė) ‘some (AnPl)’
    tsʰi-xtʰẽ (tsejtye) ‘others (AnPl)

In table D.1, note that the low tone of -kʰẽ ‘objAn’ delinks the 1 imposed by -pẽ ⟨SgM⟩ but not that of -xʰẽ ⟨AnPl⟩:

<table>
<thead>
<tr>
<th>Table D.1 Tone resistance by -jte ⟨AnPl⟩</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>singular</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>plural</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

-tsə  -tʰa ‘each’ [Adj/Adj (only on numeral phrases), follows the classifier]

(1168) a. tsópiítsa
    tsʰápʰi:-tsʰà  ‘each one’
    one-each

b. míñyetsítsa
    mî:-tʰẽtsʰi-tsʰà  ‘two each’
    two-⟨AnM⟩-each

c. pɨ́ ɨ́ néehójtsɨ́ mevátsa
    pʰɨ́ːnɛ́-ɛ̀-ʔóˣʦʰɨ́-mɛ̀-βá-ʦʰà  ‘each four’
    half-per-⟨hand⟩-⟨AnPl⟩-pl-each

-tsə ~ -tso  -tsʰo ~ -tʰa ‘causative (caus)’ [V/V (valence increasing)]

(1169) Mehéró májchotsó ɨ́ jtsɨɨméneke.
    mɛ̀ʔɛ́ɾómáˣʧʰò-ʦʰó ɨ́ ˣʦʰɨ́mɛ́nɛ̀-kʰẽ
    aunt eat-caus-⟨t⟩ self child -objAn
    ‘My aunt fed her child.’

-tsʰɔ becomes -tsʰà before -mɛ́ ‘r/p’:

(1170) tsįíbţé-tsʰá-mɛ́-pẽ (Dsįjįvétsámeíbye.) ‘He caused his
    die-caus-r/p-⟨SgM⟩ own death.’

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-tu ~ -tyu ~ -t⁽ʲ⁾ʰɯ ~ -t⁽ʲ⁾ɯ ‘source (sou)’ [N/Ncase]

(1171) Ávyéjuube tsáá ihjyátu.
áβʲɛ́hɯ̀ːpɛ̀ ʦʰáː-ˀ [Gı ˀhʲá ]-tʰɯ̀ ‘The chief comes reign-⟨SgM⟩ come-⟨t⟩ self house -sou from his house.’

-tu(ne) ~ -tyu(ne) ‘negative (neg)’

1. [Vstem/V] #σ...-t⁽ʲ⁾ʰɯ(ne)
2. [V/Vstem.] #σ...-t⁽ʲ⁾ʰɯ(ne)
3. [Adj/Adj]
   (1172) imí-tʰɯ̀ (imítyu) ‘bad’
   good-neg

The optional final syllable nɛ̀ of -tʰɯ(nɛ) ~ -t⁽ʲ⁾ʰɯ(nɛ) only occurs sentence finally, as in 1173:

(1173) Tsá dibye múijyú tsíjtyeke pɨ́áábotú.
ʦʰ aˀtì-pʲɛ̀ mɯ́-ìhʲɯ́ ʦʰí-ˣtʲʰɛ̀-kʰɛ̀
not that-⟨SgM⟩ WH-time other-⟨AnPl⟩-objAn
pʰɨ́áːpò-tʰɯ́-nɛ̀
help-neg-⟨n⟩
‘He never helps others.’

The tone derivations of íβɛ́tʰɛ́-tʰɯ́-ró-nɛ̀ and á?:íβɛ́-tʰɛ́-tʰɯ́-úpɛ̀ follow:

<table>
<thead>
<tr>
<th>íhvete</th>
<th>stop doing</th>
<th>a:hive</th>
<th>visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>: L</td>
<td>lexical</td>
<td>: :</td>
<td></td>
</tr>
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<td>: :</td>
<td></td>
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<td>:</td>
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<tr>
<td>: :</td>
<td></td>
<td></td>
<td>L_te go.do</td>
</tr>
<tr>
<td>: :</td>
<td>L_tu neg</td>
<td>: :</td>
<td>+</td>
</tr>
<tr>
<td>: :</td>
<td>L_ro frs</td>
<td>: :</td>
<td></td>
</tr>
<tr>
<td>: :</td>
<td>L_ne &lt;n&gt;</td>
<td>: :</td>
<td>:</td>
</tr>
<tr>
<td>: :</td>
<td></td>
<td>: ; : ; L :be SgM</td>
<td></td>
</tr>
<tr>
<td>: :</td>
<td></td>
<td>: ; : ; L :</td>
<td></td>
</tr>
<tr>
<td>: :</td>
<td></td>
<td>L :FDLT</td>
<td></td>
</tr>
<tr>
<td>: :</td>
<td></td>
<td>H : H : H : DHT</td>
<td></td>
</tr>
<tr>
<td>: :</td>
<td></td>
<td>: :</td>
<td></td>
</tr>
<tr>
<td>íhvete-tu-ró-ne</td>
<td>'did not perfectly stop (doing it)'</td>
<td>ááhívete-tu-úbe</td>
<td>'He did not go to visit.'</td>
</tr>
</tbody>
</table>

Figure D.11 TD: íhvéturóne, ááhívetétuúbé

-u. See -vu.
-uba -⁰⁰^{l_1}upa ‘probable (prob)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1174) Diibyéúbá tsááhi.
    ti-p^{l_1}é-úpá ṭs^{h_1}á-ʔi ‘He probably comes.’

that-(SgM)-prob come-(t)

See also figure D.4, page 426.

When a word ending with -⁰⁰^{l_1}űpɯ ‘max’ is used as the modifier (possessor) in a genitive construction the lexically marked low tone of the /u/ is overridden This is as expected with genitivs; see section 9.1, page 252.

-ucunu -⁰⁰^{l_1}ukʰ̃űnuu ‘singular static (sSt)’ [V/V]

-uvu -⁰⁰^{l_1}uβɯ ‘to the maximum extent (max)’ [N/N, Adj/Adj, V_nonfinite/N] Generally -⁰⁰^{l_1}uβɯ docks a low tone on its host’s final syllable; however, after some lexically-marked high tones, -⁰⁰^{l_1}uβɯ becomes -uβɯ.

The tone derivations of úhíkʰ-o-uβɯ̀ and ã^{tʰ}úʔó-uβɯ̀-rɛ́-hükʰ̀ó follow:

ujíco banana plant
ajchuho:u flashlight

újíco-úvu ‘dead banana plant’

Figure D.12 TD: újícoúvu, ajchúhó:úuvuréjuco

(1175) tʰá: @ kʰ^äní-uβɯ̀ (táácááníuvu) ‘my deceased father’
my father-max

(1176) ñKiátú áánúuvu tsááhi?
    kʰá-tʰú ā:nú-uβɯ̀ ṭs^{h_1}á-ʔi ‘Where does THIS (SgM)
where-sou this.SgM-max come-(t) come from?’

-uβɯ̀ (-uvu) is also used as a superlative following -nɛ ⟨ø⟩:

(1177) ã^{tʰ}úβá-nɛ-uβɯ̀ (ajtyúváneúvu) ‘the brightest green/blue’

(1178) Ímíñeúvú méénuco.
    ìmí-nê-uβɯ̀ mé:nú-kʰ̀ó ‘Do it the best you can.’
good-(ø)-max do-implore
D.2. SUFFIXES WITH SEGMENTS

-va -βa ‘plural (pl)’ [Adj_numeral/Adj (only used with numerals)]

(1179) tsʰáʔ-tʰɨ́-mɛ̀-βà (tsáhojtsímeva) ‘five live beings’
one-⟨hand⟩-⟨AnPl⟩-pl

-(-)va -○○(i)βa ‘have’ [N/V]

(1180) àhʲá-βà (ajyáva) ‘to have a son-in-law’
iːnú-βà (iṅúva) ‘to be dirty’
tìːtsí-βà (dīdsíva) ‘to have money’

The tone derivation of kpáŋɛ́hi-βà-tʰé-nè-βùú follows:

```
wañehjɨ festival
  L-va have
  L-te go.do
  L-ne <Ø>
  L-vu goal/theme
  L FDLT
  H H H : DHT
wáñehji-va-té-ne-vu
'to where they will have the festival'
```

Figure D.13 TD: wáñehjívaténevu

In 1181 -○○βa should dock its low tone on the last syllable of kʰarákʰa but this is blocked by the root’s lexically marked low tone:

(1181) Mítyane cáracámuvalle.

```
[mítʰà-nɛ̀kʰáɾ ]-mú-βà-tjé ‘She has many
many-pl chicken -⟨AnPl⟩-have-⟨SgF⟩ chickens.’
```

-va -○○βa ‘learned by hearsay, reportative (rpt)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1182) Diibyévá peé úúmaá.

```
tiːpʰé-βá pʰé-é-ţúː-màá11 ‘He will go with you
that-⟨SgM⟩-rpt go-fut-⟨ø⟩ you-with (it is said).’
```

(1183) a. Mítyameva tsááhi.
    b. Mítyamévá tsááhi.

11When the pronoun becomes long, the final vowel of the suffix splits by FLTS.
APPENDIX D. AFFIXES

a. mítʰá-mè-βà
   many-⟨AnPl⟩-plQ
b. mítʰá-mé-βá
   many-⟨AnPl⟩-rpt

\{ tˢʰáːː-Ţí \}
\{ a. ‘Many are coming.’
\{ b. ‘Many are coming
   (they say).’
\}

The tone derivation of màˣʧʰó-βà-ːpɛ́-βàˣ follows:

| majcho to eat |
| L__._va come to do |
| : | |
| : : L_:be <SgM> |
| : : | |
| : : : L_vaj reportative |
| : : : : |
| : : : : : |

majchó-va-ːbé-vaj
‘He is coming to eat (it is said).’

Figure D.14 TD: majchóva:bévaj

-va -\( \overline{\circ} \)βa ‘come to do (come.do)’ [V/V]

(1184) Ó cuwává dihjyá pañévu.
   ó kʰǔkpa-βá\( ^{-2} \) [ti\( ^{2} \) ʰá] pʰáɲe\( \text{-} \)-βù
   I sleep-come.do-(t) your house inside -goal
   ‘I come to sleep in your house.’

-ːve ~ -ːvye -\( \overline{\circ} \)β(\( ^{0} \))e 'singular intransitive (sIn)' or 'become' [N/V] Examples follow. The tone derivation for 1187 is given in figure 3.18, page 75. This suffix may delink conflicting tones, as seen in example 1188 and the corresponding tone derivation in figure D.15.

(1185) póʔchû-ːbê (bôhéjuuve) ‘to have a hole’
   póʔókpâ-ːbê (bôhówaave) ‘become visible, appear’
   kʰâ’pʰiː-ːbê\( ^{\circ} \) (câhpiivye) ‘to be poured out’

(1186) oːʔiː-ːpʰiː-ːbêː-ːpê (oohíbyéévéébe) ‘He lives like a dog
   dog-⟨SgM⟩-sln-⟨SgM⟩
   (lit. became a dog).’

(1187) méːnî-ːbêː-ːpê (Méénínívyeébe.) ‘He became a pig.’
   pig-sln-⟨SgM⟩

(1188) Mîamúnáają̊piívyeébe.
   mî̊amúnâː-ːpʰiː-ːbêː-ːpê
   ‘He became a human.’
   person-⟨SgM⟩-sln-⟨SgM⟩

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The tone derivation of mɨmuná⁻₄pʰi⁻βʲɛ⁻pè follows:

\[ \text{mɨamunaa people} \]
\[ :L : : | \text{lexical} \]
\[ :: : L_{ji} \text{pí} <\text{SgM}> \]
\[ :: : | \]
\[ :: : = L_{:vye} \text{become} \]
\[ :: :: :: | \]
\[ :: :: :: = L_{:be} <\text{SgM}> \]
\[ :: :: :: : L \text{FDLT} \]
\[ H: H HH H : : \text{DHT} \]
\[ :: :: :: :: H : \text{PLTS} \]
\[ \text{mɨamunaa⁻jpí⁻vye⁻ébe 'He became a human.'} \]

Figure D.15 TD: mɨamunaa⁻jpí⁻vye⁻ébe

-véjiu -béhiu ‘similar to (similar)’ [V/V, N/N, Adj/Adj, Adv/Adv] This suffix has very limited use. It seems to mean exactly the same as -₁₀(²⁾tuu ‘like’. See example 810, page 317

-vu ~ vyu ~ -u -₁β⁽ʲ⁾ɯ ~ -₁u ‘goal, theme (goal, thm)’ [N/N\text{case}] See 1110, page 429.

(1189) Ávyéjulle péé ihjyávu.
\[ \text{áβʲɛ́hɯ́-ʧɛ́ pʰɛ́ː-ˀ} [^{\text{i} } h^\text{á} ]⁻βɯ́ \text{ 'The chieftess goes reign-(SgF) go-(t) self house -goal to her house.'} \]

-\(\text{wu(u) -kpú(u)}\) ‘diminutive, very (dim)’ [N/N, Adj/Adj]. Word medially, i.e., when some suffix or clitic follows, the form is -kpúuu. Word finally the form is -₁lpú.¹² Further, the tone patterns are different for nouns and adjectives:

1. When -\(\text{kpú}\) follows a noun, all preceding tones are high except for any lexically marked low tones, as in the examples that follow:

(1190) kpá⁻₄pʰi⁻kpú (wájpiwu) ‘small man’
\[ \text{man-dim} \]
(1191) ájá⁻në⁻kpú (áyánéwu) ‘few things’
\[ \text{few-frs-(Ø)-dim} \]

The tone derivations of ájá⁻në⁻kpú and ámánë⁻kpú⁻mú⁻rë⁻hûkʰò are given in figure D.16 and that of óᵗʰˢⁿářhi⁻kpú⁻mú⁻rë⁻hûkʰò is given in figure D.17.

¹²Even though, as here, a second /u/ is not present, the syllable preceding -kpú must bear high tone; i.e., it behaves as though the extra syllable were present.
APPENDIX D. AFFIXES

<table>
<thead>
<tr>
<th>aya</th>
<th>few</th>
<th>amana</th>
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<td></td>
<td>:</td>
<td>H : lexical</td>
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<tr>
<td>L.._ne &lt;∅&gt;</td>
<td>:</td>
<td>.._wuu dim</td>
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<td>H H H : DHT</td>
<td>:</td>
<td>: : :</td>
</tr>
<tr>
<td>áyá-né-wu</td>
<td>H : H :</td>
<td>: DHT</td>
</tr>
</tbody>
</table>

‘few things’

| amáná-wúú-mu | ‘little porpoises’ |

Figure D.16 TD: ámánáwuúmu, áyánéwu

<table>
<thead>
<tr>
<th>ohtsarìjì</th>
<th>pichico</th>
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<tr>
<td>ohtsáříjì-wúú-mu-re-juco</td>
<td></td>
</tr>
</tbody>
</table>

‘now only little pichicos (type of monkey)’

Figure D.17 TD: ohtsáříjìwuúméréjuco

2. When -kpú follows an adjective, it imposes a low tone on the adjective’s first syllable, as seen in 1192 and 1193: 1192- kpú(ũ)u. It is used to enhance adjectives, as in 1192:

(1192) ímí-kpú tiː-ʧɛ̀ (Imíwu diílle.) ‘She is very pretty.’

| good-dim that-⟨SgF⟩ |

(1193) kʰajópá-kpú (cayóbáwu) ‘very angry’

| kpákʰimlépʰi-kpú (wakímyépíwu) ‘very good worker’ |

-ya See entry -ro ~ -ra ~ -yo ~ -ya ‘frustrative, contraexpectation’.
-ye. See entry -re ~ -ye ‘only’.
-yi. See entry -ri ~ -yi ‘inanimate oblique’.
-yo See entry -ro ~ -ra ~ -yo ~ -ya ‘frustrative, contraexpectation’.

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Appendix E

The Bora Classifiers

E.1 Explanation and disclaimers

This section presents a list of Bora classifiers. The list is organized alphabetically by the spelling in the practical orthography. (Note: long vowels are alphabetized as though they were short.) It was translated from a draft of (Thiesen & Thiesen 1998). A committee of Ìñeja Bora speakers reviewed this list and, for inclusion in (Thiesen & Thiesen 1998), removed those that are flagged with ◎. They did so for various reasons, among them: (1) certain forms are characteristic of dialects other than Ìñeje, (2) certain forms would be used very infrequently (possibly because the younger generation of Bora speakers is using a smaller set of classifiers than the older generation). Thiesen identified about 150 classifiers as those that are more commonly used. These are identified with • as an aid to anyone learning the Bora language.

The descriptions of the classifiers given here are not intended as exhaustive, but as illustrative of many other facts that could be mentioned. A category is included with each classifier: shape (e.g., smashed very flat), botanical (e.g., plant or tree with one root but a number of trunks), being (e.g., person or animal with a solid, well built body), spatial (path through space that leads to some place), substance (e.g., very curved and flexible at the tip, like a fishing rod), time (e.g., late in the day), liquid (e.g., sap of a tree), object (e.g., ridge-pole of a house), action (e.g., turning sideways to pass through a narrow place), sound (e.g., disagreeable, bothersome)

1 A diagnostic test for classifiers is the following: only classifiers may follow the bound demonstrative roots discussed in section 8.4.
sound), condition (e.g., leaning over about to fall), figurative (e.g., speech or teachings < long and narrow like a trail), object (e.g., the sediment left in the bottom in the preparation of some drink), position (e.g., out of place, misaligned). These categories are intended as suggestive, not as an absolute taxonomy of Bora classifiers.

### E.2 Classifiers

- **-aacóroho** /əːkʰoroʔo/ **shape**: resembling a blown-up bag or a dress without a waist
- **-acúú** /əkʰuːwu/ **position**: seated (or setting)
- **-aalláco** /aːtʃakʰo/ **shape**: resembling a tube with a bulge in the middle
- **-allúrou** /aʧɯɾoɯ/ **shape**: large bulging eyes of people or animals
- **-aamái** /aːmai/ **shape**: a column of people or animals one after another
- **-aapáróu** /aːpʰaróu/ **shape**: a circular stain
- **-aráára** /aɾaːɾa/ **shape**: having many small holes in it (e.g., a hide with holes made by a shot-gun)
- **-aráárau** /aɾaːɾau/ **shape**: a small stain
- **-atyóhrajɨ** /aᵗʰoˀɾahɨ/ **shape**: loose, not rolled up (e.g., a pile of clothes tossed in a heap)
- **-avóhoóu** /aβoʔoːɯ/ **position**: turned face down

- **-ba**, **-bya** or **-hba** /-pə/ **shape**: thick, long and round, e.g., a log
  1. **shape**: any kind of package, carton or box
  2. **shape**: a musical instrument
  3. **shape**: like a drum or a guitar

  4. **liquid**: thick drinks such as those made from palm fruit, pineapple, plantains, and so forth
  5. **substance**: soft fruits that can be broken open with the hand to be eaten
  6. **time**: year

- **-babya** or **-Chbabya** /-pəp'a/ **shape**: a container the shape of a bag
- **-bajcu** /-pəkʰu/ **shape**: any type of bone
- **-baju** or **-hbaju** /-pahɯ/ **shape**: any type of bone
- **-boju** or **-hboju** /-pahɯ/ **botanical**: stand of trees
- **-banúunui** /-pánwnumui/ **shape**: long, narrow ridge like those made by a plow
- **-bou** or **-hbou** /-pau/ **shape**: mound, hill or round protruberance

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-be /-ːpɛ/ being: male person or animal (singular masculine (SgM))

-beerōba or -beerōu /-pɛ:ropa/ shape: a bald dome (e.g., a head without hair)

-bewa /-ːpɛkpa/ shape: a stack of things

-bihi /-ːpiʰi/ shape: a stain

-boji /-ːpohi/ liquid: a stationary bubble or pool of some liquid (e.g., a drop of water on the table, a pool of water)

-buhtsa /-ːpuɾtsʰa/ shape: a small mound of dirt (e.g., at the foot of an upturned tree)

-cadóóu /-kʰatɔːɯ/ substance: having two colors, each end being a different color

-cadúhdaú /-kʰatʰuːɯ/ shape: hung suspended from both ends (e.g., a hammock)

-cadsúdswuu /-kʰatsutsuuwːu/ shape: having shrunk in size

-cahdídaaw /-kʰaːtʰaːu/ position: with the head bowed down, showing sadness, embarrassment, or disgust

-cahmái /-kʰaːmaʔai/ shape: a pile up of people, plates, boxes, or other things

-cahmátaji /-kʰaːmatʰai/ condition: things stuck together

-cahjoí or -cahjóí /-kʰaʔhɔi/ shape: having a wavy edge, e.g., the rim of a hat, the edge of a canoe

-caajja /-ːkʰaːha/ spatial: place like a gully or swamp

-caji /-ːkʰaihːi/ being: a cow or tapir

-callájaáu /-kʰafahauːu/ shape: a disorganized group of things, people, or animals

-calléjuwa /-kʰafɛhukпа/ shape: having raised edges, but lacking much depth

-callóu /-kʰafou/ position: person or animal with the head down

-callúriːji /-kʰafuɾiːhi/ position: one edge of an object higher than the opposing edge

-camáhjába /-kʰaːmaʔaːpa/³ shape: broken pieces (of some object)

-camáhllába /-kʰaːmaʔaːp па/ object: the sediment left in the bottom in the preparation of some drink

-camáhtají /-kʰaːmaʔaːhʰai/ object: disk-shaped stopper for plugging up holes in wood or openings in the ground

-camújyuhi /-kʰaʔmuʔtʰuʔi/ shape: a short neck of a person or animal

-camúuruuí /-kʰaʔmuɾuʔi/ position: an obstruction in something tube-shaped

-canóóu /-kʰanoːu/ position: bowing the head

-canúnuuí /-kʰanunuʔi/ shape: very full, e.g., a bag or basket

-caanúroi /-kʰanuɾoi/ shape: very full, e.g., a bulging bag or basket

-capátyuuúu /-kʰapʰatʰuːɯ/ shape: a sharp object pierced through something else

-capújuúu /-kʰapʰuʔuːɯ/ position: someone stooped over to pass under something

-carááu /-kʰaːraːuːu/ shape: a deep hole

²This derives from the verb kʰatɯˀta’ (something suspended) to come loose’.

³This may derive from the verb kʰaːmaʔa; compare kʰamá:-jɛ̀ ‘to put together’.

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APPENDIX E. THE BORA CLASSIFIERS

-caríhjyau or -caríjyaáu /-kʰariˀh˩au/ position: two poles together at the top with the bottom points apart; a person standing with his legs apart

-caróňjawa /-kʰaɾoˀhakp˩a/ shape: a high riverbank or precipice

-caróóju /-kʰaɾiˀh˩aɯ/ shape: cut at an angle or several objects cut at different heights or lengths

-catóroóu /-kʰatʰoːɯ/ shape: a prop (supporting something); a person leaning against something

-catsóói /-kʰaʦʰoːi/ position: jacked up above the middle (e.g., a pair of pants jacked up above the waist)

-cayáhtyajɨ /-kʰaˀtʲʰahɨ/ condition: a ruptured eye
cayííjɨ /-kʰaɭiːhɨ/ condition: a deformed mouth

-co, -cyo, -coo, or -cyoo /-kʰo~kʰo~kʰo~kʰo:/
1. shape: a slender pole
•-coóho /-kʰoʔoʔo/ shape: resembling a fishnet (string knotted together like a fishnet)
•-coja /-kʰoʔa/ shape: a rapidly made basket with very loose weave
•-coómi /-kʰoːmi/ spatial: a place where people live (town or village)

cotyáí /-kʰotʰai/ shape: long narrow supports (e.g., the legs of a table)
cubáu /-kʰuʔaʔu/ shape: unnaturally short (e.g., cut-off pants, an amputated limb)
cuhco /-kʰuʔiʔkʰo/ condition: very thin (person or animal)
cuhllu /-kʰuʔiʔu/ shape: curved or twisted, e.g., a pole or a road
cuhtsíu /-kʰuʔisʰiʔu/ shape: deformed, twisted, e.g., a person standing on one leg, a person who has a twisted hip causing the leg to be short
cuhvi /-kʰuʔiʔiʔiʔu/ shape: a shrunken hand
cujúúu /-kʰuʔuʔuʔu/ position: a log that does not reach across to the other side
cujúroba /-kʰuʔuurop˩a/ shape: underdeveloped or severed (e.g., a leg, an arm, a pole cut too short)
cuumúruji /-kʰuʔumurɯji/ shape: a hump-backed person or animal
cunííu /-kʰuʔiʔɨu/ 1. shape: resembling a foot without toes
2. figurative: a person who does not walk normally because of pain in the toes
•-cuunííu /-kʰuʔiʔiʔu/ condition: having a dull edge or tip (an instrument such as a machete, axe, arrowhead,…)
-chaácha /-tʰaːtʰa/: condition: soft and mushy (e.g., muddy ground or fruit that has been trampled)
-chaáchóóho /-tʰaːʔoːʔo/: shape: the legs of a bowlegged person, table legs bent inwards
-chahpi /-tʰaːpʰi/: shape: fluffed out (e.g., ruffled hair or feathers)
-chańja /-tʰaːha/: condition: rotten or decomposed
-chahpi /-tʰaːpʰi/: shape: fluffed out (e.g., ruffled hair or feathers)
-chańja /-tʰaːha/: condition: rotten or decomposed
-chehmúwa /-ɛˀmɯkpa/: shape: resembling a protruding jaw (e.g., that of a person lacking teeth)
-dajca /-təˣkʰa/: condition: trampled (grass or weeds)
-dibééu /-tʰéʔu/: position: held between opposing objects, e.g., something held between the lips or teeth, or held in a vise
-o-dimúmuú /-tʰimúmuːu/: shape: opposing objects (one above, the other below) misaligned, e.g., the upper teeth biting the lower lip
-dihřijí /-tʰiːɾihi/: shape: round and wider than high (e.g., a tuna can)
-dobééu /-tʰepɛːw/: shape: pulled together (e.g., as when one closes the top of a sack)\(^4\)
-dochóhóou /-tʰoʔoːʔu/: shape: two poles leaning towards each other, or the legs of a table pointing inward
-dóóđi /-tʰoːti/: shape: a crack in a wall, a pole or, the ground
-dodo /-tʰoːto/: shape: very full and bulging
-doríhyau /-tʰiːʔau/: shape: two poles leaning away from each other, the legs of a table spread apart
-dorfíi /-tʰiːʔu/: condition: having a very dull point (e.g., a nail lacking a sharp point)
-dootórojí /-tʰoɾoːhi/: shape: hump-backed or curved
-dovíiyíu /-tʰo$bɨjjiːʔu/: shape: rolled up in leaves (paper, blanket, ...)
-dujca /-tʰurˈkʰa/: shape: a cove in the river, a bay in the ocean
-dujúúu /-tʰuʔuːu/: shape: upright and leaning forward
-dsaádsá /-tʰaːtsa/: shape: the point of something that is fibrous and splinterly
-dsaára /-tʰaːrə/: shape: uncombed hair, stiff bristles, a porcupine’s needles
-dseéđé /-tʰɛːtɛː/ sound: a disagreeable, bothersome sound
-dseéře /-tʰɛːɾe/ sound: a very high pitched sound, e.g., that of a cicada
-o-dsihhsíu /-tsʰiːʔu/: shape: a very short object
-dsirířu /-tsiːʔu/: shape: a big round-bellied clay pot
-dsujgúruu /-tsʰuʔɛːɾu/: shape:
\(^4\)Compare tópɛ̚ɛ́ːβɛ́ (gather-sIn dobééve) ‘to be gathered together’.  

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short and chubby
- ejdéu /ɛˈtɛw/ *shape*: a thick board or disc
- erérei /ɛˈrɛːi/ *shape*: a stick-like thing with a sharp point
- eróva /ɛˈrɔbaːɯ/ *shape*: liquid-filled blister
- eténi /ɛtʰɛniːɯ/ *shape*: the face made by someone not wanting to cough

- gerérei /ˈkɛrɛːi/ *shape*: protruding (about to come out)
- goñi /ɡoɲi/ *shape*: an open mouth so you can see the teeth
- guhna /ɡuʔna/ *shape*: S-shaped

- ha or -háa /ha(a)/
  1. *shape*: a big grouping of animals, birds, fish, or people
  2. *shape*: a pineapple
- hásí /hásí/ *shape*: a small grouping of people, (of animals, trees, ...)
- hajca /hajˈca/ *shape*:
  1. a hand of bananas
  2. a big pile-up of something
- hajcu /hajˈcu/ *shape*:
  1. *shape*: a stump, house pole, post, and such
  2. *sound*: a big loud noise
- haj /haj/ *shape*: wrapped in leaves or paper and tied at the top
- haami /həˈami/ *shape*: very thin (e.g., a leaf or a piece of paper)
- hate /həˈtɛj/ *spatial*: a clearing (e.g., a yard around the house)
- hajchóta /həˈtʃoːtə/ *time*: duration
  2. *spatial*: distance
E.2. CLASSIFIERS

- **-hoója /-ʔoːha/** shape: a cylindrical hole, either in the ground or the cavity of an empty tin can

- **-hojtsɨ /-ʔoːtsʰi/** shape: hand-shaped

- **-hoóu /-ʔoːɯ/** shape: long and cylindrical (e.g., a log)

- **-hoówa /-ʔoːkpa/** shape: an open space

- **-hulle /-ʔɯʧɛ/** spatial: some place away from the speaker (⟨yonder⟩)

- **-i or -ii / -iː/** shape: along, slender thing (e.g., a stick, a river)

- **-ibíiu /-ʔipiiɯ/** shape: cheekspuffed out when the mouth is filled with coca powder

- **-ihbáu /-ʔipɛɯ/** shape: things that are bulged out in the middle (e.g., a man with a big stomach)

- **-ihbúcuúu /-ʔipɯkʰɯːɯ/** shape: things in uneven lengths

- **-ihcyu /-ʔiːkʰɯ/** shape: resembling a water or cooking pot

- **-ihjī /-ʔiːʔʲo/** shape: things round and long (e.g., a pencil)

- **-iíhyo /-ʔiːʔjo/** shape: things round and long (e.g., a pencil)

- **-ijyócuúu /-ʔihjkʰɯːɯ/** position: things standing up

- **-ijyu /-ʔihɯ/** time: a reference to time

- **-imjyau /-ʔimh¹aɯ/** substance: good, beautiful and appreciated things

- **-ityóroóu /-ʔiθorooːɯ/** position: not parallel to the rest

- **-ivórowa /-ʔiθorokpa/** shape: twisted and bent (e.g., a board laid out in the sun)

- **-iibiho /-ʔipiʔo/** condition: a very full mouth, an overfull container

- **-ihdzi /-ʔiːtsi/**

  1. shape: fibers (e.g., those that remain after manioc has been grated)

  2. condition: hair that is bushy and not combed

- **-iíji /-ʔihi/** shape: an elevated platform or floor

- **-ijpi ~ -ihipi /-ʔiʔpʰi ~ -ʔiʔpʰi/**

  1. spatial: the point from which something develops, e.g., the roots of a plant

  2. figurative: something’s creator or originator

- **-itótoói /-ʔiθotʰoːi/** shape: bumps caused by many points of things in a bag

- **-itsíu /-ʔitsʰuːɯ/** position: leaning forward

- **-ivóhoóu /-ʔiboʔoːɯ/** position: lying face down

- **-ja /-ʔaha/** shape: a covering (e.g., a house, a pair of pants, a shirt)

- **-jaába /-ʔahaːpa/** botanical: a clump of trees left standing in a field that has been cut down

- **-jaáu /-ʔahaːɯ/** botanical: a branch with leaves only at the tip

- **-jcaáha /-ʔkʰaʔa/** botanical: plants with runners (e.g., vines)

- **-jcaáhya /-ʔkʰaʔaː/** condition: very thin (person or animal)

- **-jcaámi /-ʔkʰaʔi/** spatial: a place full of mud (e.g., a mud hole)

- **-jcoóji /-ʔkʰoʔi/** time: day or daytime

- **-jcuúve /-ʔkʰɯːβɛ/** time: late in the day

- **-ji /-ʔihi/** shape: a flat, round thing, disk-like

- **-jiíco /-ʔiθikʰo/** shape: resembling a funnel

- **-jiha /-ʔiθa/** spatial: an abandoned field or garden

- **-jiho /-ʔiθo/** shape: things put one
APPENDIX E. THE BORA CLASSIFIERS

-jihto /-ɾihi'to/ shape: an emptied container (e.g., an empty sack)
-jihto /-ɾihi'to/ 1. spatial: a path through space that leads to some place 2. figurative: a line of teaching and beliefs
-jke /-ɾik'e/ botanical: climbing vines
-o-jkeji /-ɾi'hi'chi/ spatial: a place in the jungle where there are a lot of vines used for tying up things
-jkeemâ /-ɾi'hi'emâ/ being: an old man
-jkeemâ /-ɾi'hi'emâ/ shape: a notch chipped into a tree
-jooro /-ɾoro/ shape: a gully or a canal bed
-jpa /-ɾip'a/ liquid: a soup or broth
-jpaço /-ɾip'ako'o/ liquid: all liquids
-jpau /-ɾip'aju/ liquid: small pockets of water on any surface
-jpi /-ɾipi/ See -pi.
-jpile /-ɾip'etê/ See -pile.
-jtataáwa /-ɾi'tat'hakpa/ shape: a piled up tangle of vines and leaves forming a shelter
-jte, jtye, or -te /-ɾit'ê ~ -ɾit'hê ~ -ɾit'eto/ being: three or more people or animals (animate plural ⟨AnPl⟩)
-jtepi or -tepí /-ɾit'ep'hî ~ -ɾit'ep'ehî/ being: two women or female animals (dual feminine ⟨DuF⟩)
-jtetsi or -tetsí /-ɾit'ets'hî ~ -ɾit'ets'ehî/ being: two men or male animals (dual masculine ⟨DuM⟩)
-jto /-ɾito/ shape: having a point, e.g., a needle, a cow's horn
-o-jtoha /-ɾi'tho'â/ shape: wrapped up in leaves and tied at one end
-o-jtoha /-ɾi'tho'â/ 1. shape: a curve in the river or on a trail
-o-jtoha /-ɾi'tho'â/ 2. shape: the curve on the front of a bald head
-ôjtu /-ɾitu/ liquid: the sap of a tree
-o-jtúha /-ɾi'tu'hâ/ shape: resembling a foot
-o-jtsú'ho /-ɾi'ts'uwâhô/ 1. shape: rolled up 2. figurative: a sickly person who has no energy 3. figurative: a person shivering from the cold
-o-jhu /-ɾi'hu/ 1. shape: long and narrow, e.g., a trail, a river, a road 2. figurative: speech or teachings
-o-jhu /-ɾi'hu/ botanical: a palm leaf
-o-jumi /-ɾi'humî/ object: the ridgepole of a house
-o-júva /-ɾi'hu'va/ shape: a trail left by tracks made by man or animal
-o-juwa /-ɾi'hu'wâ/ shape: missing a piece
-o-kegarai /-ɾikʰ'êgarâi/ shape: thin in the middle and thicker at each end, e.g., a long neck
-o-kegtûhi /-ɾikʰ'tu'âhi/ shape: having a long, thin neck
-o-kejtûsi /-ɾikʰ'ts'ûsi/ position: stretching to see something (i.e., craning the neck to get the eyes into a position from which they can see something)
-o-kihôrâi /-ɾi'kôraï/ shape: a very straight cut board
-o-kivôjhô /-ɾi'vôjhô/ shape: a lady's short haircut
-o-kivi /-ɾi'vi/ botanical: the cap of a tree including all the branches and leaves
-o-kiyû'ô /-ɾi'kû'ô/ shape: a notched cut around the circumference of a cylindrical object (e.g., a
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-kiityúruji /-kiítyúruhi/ shape: a flat cut around the circumference of a cylindrical object
lladí /-tja?:t/ shape: an old deformed basket
llahlárríji /-tjmpírikbo/ shape: flapping, e.g., a bit of torn cloth on a shirt that flaps
llahpíríco or llapíríco /-tjmpírikbo/ being: a short, pot-bellied person
llajvávau /-tjamíβaβaɯ/ shape: a person, animal or thing with a bulge in the middle

-llaára /-tja:ra/
1. condition: old torn clothes
2. figurative: a person dressed in rags

llavájriwa /-tjamíβaʔiʔkpa/ shape: a hole made in something by violence, e.g., an opening made in a palm leaf roof by a strong wind
lle /-tje:/ being: a woman or female animal (singular feminine (SgF))
lle /-tje/ spatial: yonder, over there
llevéhrou /-tjebeʔrou/ shape: circular
lli /-tji/ shape: a bunch of fibers tied together at one end
llíhýo /-tjiiʔo/ shape: palm heart
llíhýoji /-tjiʔoiʔhi/ shape: rays of light, e.g., those made by the sun or a flashlight
llíjyyu /-tjihuʔu/ shape: any kind of powder
llová /-tjóβai/ shape: conical, long and cylindrical with a gradually diminishing thickness toward the end
llóvoji /-tjóβohi/ shape: things twisted and spiral

-llóółlo /-tjoːtʃo/ shape: things wrinkled
llumíba or llumí:ho /-tjúmípa ~ -tjúmiʔo/ shape: thick and prominent eyelids
maacyáji /-máktʰahi/ condition: a color streak that can appear on a shiny surface, e.g., a streak of oil in water
mahtáji /-mtʰahi/ shape: a dark blotch on a surface
mapóhewa /-mapʰoʔkpa/ shape: a large dark blotch on a surface
mavýoʔho /-máʔbijôʔo/ shape: things that are curled up, e.g., dry leaves or hair

-me
1. with nouns: /-tme/ being: three or more people or animals (animate plural with a few animate nouns (AnPl))
2. with verbs: /-tme/ being: three or more people or animals (animate plural (AnPl))

-mibyééu /-kip-eʔu/ shape: wrapped up
-míhńi /-miʔniʔu/ shape: a pile of things aligned lengthwise
-mivýiʔu /-miʔjiiʔu/ shape: coiled up, e.g., a coiled up rope

-mí or -mií /-tmi/: shape: a canoe or other vehicles of transportation
-míhe /-tmiʔe/ shape: a skin of an animal, a sheet of metal
-mího /-tmiʔo/ shape: flat thin sheet, e.g., bark of tree, a sheet of metal, fingernail
-míjco /-tmiíkbo/
1. shape: a fenced enclosure
2. shape: a circle of people
-mími /-tmi:mi/ shape: a dent or indentation
-míro /-tmiʔo/ shape: a shallow
APPENDIX E. THE BORA CLASSIFIERS

cavity
-miróójɨ /-mɨɾoːhɨ/ shape: a concavity in a surface

•-mo /-mʊ/ shape: a large body of water, e.g., a big river, the ocean

-mocódsɨu /-mʊkʰotsiːɯ/ shape: an angry facial expression

•-motsɨu /-mʊʦʰiːɯ/ condition: turning dark before it starts to rain

•-mu /-mɨ/ 1. shape: umarí fruit
   2. shape: signal drum

-o-muhmúu /-mʊˈmuːu/ object: a termite nest

•-mupɨ /-mʊpʰɨ/ being: two women or female animals (dual feminine (DuF))

•-mutsɨ /-mʊʦʰɨ/ being: two men or male animals (dual masculine (DuM))

•-naatsóu /-nɑːtsʰou/ shape: thing with a sharp point

•-ne or -ñe /-nɛ ~ -nɛ/ the default classifier (maximally unspecified) There are two (or more) cases which differ in tonal effect and meaning:
   1. /-nɛ/ thing
   2. /#nɛ/ event

•-nehnįjyaau /-nɛʃʰįʔau/ condition: bad things or bad actions

•-nejcu /-nɛʃʰuː/ spatial: the side of something, e.g., the side of a house

-nejcůu /-nɛʃʰuːu/ shape: strong muscles

•-niʰhyo /-niːʰo/ being: woman who has children, animal with young

•-nijkye /-niʃʰe/ spatial: a burial place, grave

-o-niñe /-niːnɛ/ spatial: a place beyond

•-nipóljchaau /-nɪpʰəʃʰaau/ shape: a full bladder or other things of that shape, e.g., a blown up balloon

-nihcόrou /-niʃkʰorou/ shape: things resembling a big ladle or dipper (used in the kitchen)

-nocόriwa /-nokʰorilpa/ shape: things resembling the downward curve of a hawk's beak

-nohcόrou /-nøkʰorou/ shape: things curved, e.g., a rainbow

•-noóra /-nøʃʰa/ shape: a mound formed at the foot of a fallen tree

-o-nuhmíraji or -numíľrau /-nʊmíɾaɾi /-nʊmíʔrau/ shape: a person or animal with big ears

•-nuhtsɨ /-nɯʃʰɨ/ shape: a mound formed at the foot of a fallen tree

-o-numíľho /-nʊmíʔlo/ being: a person or animal with big ears

-o-nuhmúu /-nʊmʰiːɯ/ shape: cups and pots with handles (“ears”).

•-núyah /-nøʃʰi/ shape: things that have dents in them

-ñoohco /-nøʃʰo/ shape: a curved

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5 Compare -nʊmíraji ~ -nʊmíʔrau ‘ears’, -nʊmíʔlo ‘person or animal with big ears’, and -nʊmʰiːɯ ‘cups and pots with handles (“ears”’). The common semantic component “ear” obviously corresponds to the recurring partial nʊmí.

6 Compare nøkʰo ‘stork’.

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handle on a pot
-ñuhííu /-ɲuʔiːw/ shape: a face with a frown
-ooɓírau /-ɔpírau/ shape: a solid sphere of some substance, e.g., a ball of dough or mud
-oodsjyau /-ɔtʃ'hau/ shape: a bulky place around a pole, tree or vine
-oohcu /-oʔkʰɯw/ shape: broken pieces of pottery on which to place a pot above the fire
-ohcúu /-oʔkʰɯu/w/ shape: a swelling
-oóhi /-oʔhi/ being: jaguar, dog
-ohtóu /-oʔtʰow/ shape: a round hole in a shirt, board or wall
-omónííu /-omoniːw/ shape: deformed (e.g., an animal that has been burned by a fire)
-oonei /-oːnai/ shape: rolled up (e.g., a piece of paper or a pancake)
-oootsíño /-oːʦʰiʔo/ shape: a bulge about the perimeter of something cylindrical (with both ends being narrower), e.g., a bulge in the middle of a tree trunk
-pachícháau /-paʧʰiʧʰaːw/ shape: things that are criss-crossed
-paáji /-paʔjí/ 1. shape: a tubular hole (e.g., a pipe, a hollow tree trunk) 2. shape: shoe
-pajtsi /-paʔtsʰi/ shape: circular, e.g., ring, roll of wire
-palli /-paʔtʰi/ botanical: a planted field
-patúúu /-pʰatʰɯw/ shape: stretched out, e.g., a rubber band pulled taut
-o-patúruúi /-pʰatʰuʔuːii/ position: a person or animal stretched out
-o-patúruúu /-pʰatʰuʔuːw/ position: a rope or vine stretched out between two trees
-patsááho /-pʰatsʰaʔo/ botanical: trees left standing in a field that has been cut down
-péjco /-pʰeʔkʰo/ time: darkness or night
-o-peróówa or -peyóówa /-pʰerokpa ~ -pʰeʔokpa/ position: thing not in its place
-pi or -jpi /-pʰi ~ -pʰjí/ being: a man or a male animal (singular masculine (SgM))
-pille or -jpille /-pʰiʔe ~ -pʰjíʔe/ being: a woman or a female animal (singular feminine (SgF))
-pichchúu /-pʰiʔuʔu/w/  1. being: two people or animals on top of each other 2. figurative: used to form the number three
-pihláriji /-pʰiʔarihi/ shape: curled under (e.g., the lower lip curled down)
-pijyúu /-pʰiʔuʔu/w/ shape: having an end curled back sharply, e.g., a fishhook
-pinónowa /-pʰinonokpa/ shape: having a twisted point
-piumííu /-pʰiumiʔu/w/ shape: doubled back and flattened, e.g., the crimped edge of a sheet of tin
-pi /-pʰi/ botanical: bitter cassava root (manioc)
-píhha /-pʰiʔa/w/ substance: very limp or flexible
-píhra /-pʰiʔra/w/ shape: flexible and hanging down, e.g., the ears of some dogs
-píjí /-pʰiʔhi/ substance: having the consistency of mashed potatoes
-pióoji /-pʰioːhi/ action: a duck walk (a gait like a duck)
-piódiíji /-pʰiʔutʃʰi/ shape: a con-
vexity in a surface, e.g., an upward bulge in the floor of a canoe
- pohri /-pʰo’ri/ *shape: wrapped up (e.g., a lump of dough)
- puhpúwa /-pʰu’wa/ *shape: a haircut in the form of a bowl
- raáhe /-ra’te/ *being: a chicken
- rahja /-ra’ha/ *shape: a break in an enclosure caused by missing poles
- raáho or -yaáho /-ra’o ~ -ya’o/  
  1. **spatial**: the distance or space between two points 
  2. **time**: a span or period of time
- raára /-ra’ra/ *shape: punched full of holes; rotted
- ravájchau /-ra’βaʃa’wa/ *shape: resembling a bloated stomach
- rehmíji /-re’mi/ *being: having very short legs or arms
- reére /-re’re/ *substance: things glutinous and transparent, e.g., clear gelatine
- reróóu /-re’o’u/ *condition: leaning to one side
- revóóu /-re’o’u/ *shape: a person, animal or thing twisted toward the back, e.g., a person looking over his shoulder
- rihiyáwa /-ri’hiya’wa/ *shape: things having the form of an arch (e.g., a pair of pliers)
- rihi /-ri’hi/ *shape: bad and missing teeth
- rihipáji /-ri’hi’pi’aji/ *being: a bow-legged person or animal
- riýáau /-ri’yai’ao/ *position: legs extended as when taking a step
- riypáyu /-ri’yai’pajao’u/ *being: a short person with a big stomach
- riíri /-ri’iri’/ *condition: a runny sore or infected, drippy eyes
- ro or -yo /-ro ~ -yo/ *shape: a bottle
- rohcáji /-ro’hci’aji/ *shape: crescent, half-moon
- rohlo /-ro’hlo’/ *shape: long, thin and curved, e.g., a car’s leaf spring
- rohpéwa /-ro’hpe’wa/ *shape: a deformed fruit
- roónmyeheo /-ro’o’mi’eho/ *being: a person or animal with a solid, well built body
- rootóho /-ro’to’ho/ *shape: having a thick middle
- rovícyo /-ro’vi’ci’yo/ *shape: concave, e.g., the cavity of an ear
- ruhi /-ru’hi/ *shape: long, thin and wavy (not straight)
- ruhlu /-ru’lu’/ *shape: permanently bent joint, e.g., a leg that can not be extended
- ruhráí /-ru’ra’í/ *shape: long and cylindrical
- rujtsi /-ru’tsi’/ *object: a woven basket
- ta /-t’a/ *shape: a portion of something
- tahcárají /-ta’k’arají/ *position: sprawled out
- tajáwa /-t’a’jáwa’/ *shape: smashed very flat
- tajkíu or -tajkíba /-t’a’k’íu ~ -t’a’k’ipá’/ *shape: a person or animal with very thick legs
- talíyiúu /-ta’li’iúu/ *shape: twisted, e.g., a propeller
- tamí’úu /-t’a’mí’úu/ *shape: a low place in a flat surface
- taríjáau /-t’a’ri’jáau’/ *action: standing with the legs apart
- tarójíu /-t’a’ro’jíu’/ *shape: long and curved (e.g., a tree, branch, or bar)
- taata /-t’a’a’t’a’/ *shape: small
fibers in disarray, e.g., uncombed hair
- *tyátya* /-\textipa{tʰa:tʰa}/ shape: having collapsed sides, e.g., an empty soft-sided suitcase

- *tehkéreu* /-\textipa{tʰɛ́kɛ́rɛ́ɯ}/ shape: round and smooth, e.g., the surface of a bald head

- *tojco* /-\textipa{tʰo:xkʰo}/ spatial: a corner in a room (in a box, ...)

- *tyohkéyeu* /-\textipa{o:xkʰɛjɛɯ}/ shape: a swelling on the body

- *tohra* /-\textipa{tʰoɾa}/ shape: suspended empty bag-like thing, e.g., an empty bag hung on a hook

- *tuhra* /-\textipa{tʰɯˀɾa}/ shape: a hanging flexible object that flaps in the wind

- *tuhtsájɨ* /-\textipa{ʦʰahɨ}/ shape: the snout of a pig

- *tujke* /-\textipa{ʦʰu:kʰe}/ botanical: the stem of a leaf or a fruit

- *tujkéba* /-\textipa{ʦʰu:kʰepa}/ botanical: a thick stem of a fruit

- *tujújɨ* /-\textipa{ʦʰuːhui}/ shape: having a sharp point, e.g., the pointed nose of a taper or anteater

- *tujúwa* /-\textipa{ʦʰu:ɯkpa}/ shape: having a dull point, e.g., a very prominent nose

- *turúúu* /-\textipa{ʦʰuːɾu:ɯ}/ condition: leaning over about to fall

- *turúruújɨ* /-\textipa{ʦʰuːɾuːɾu:hi}/ condition: standing upright but very flexible, e.g., a rush stalk

- *tsaáhe* /-\textipa{ʦʰaːʔe}/ shape: a handful of long, thin cylindrical objects (small rods)

- *tsahtsówa* /-\textipa{ʦʰaːʔaːʔakpa}/ shape: resembling a large lock of hair

- *tsaǹúuí* /-\textipa{ʦʰaːʔu:ɪ}/ shape: spool of thread and similar things

- *tsaára* /-\textipa{ʦʰaːra}/ shape: needle-like

- *tsérójɨ* /-\textipa{ʦʰɛɾoːhi}/ shape: cross-eyed

- *tsii* or *chii* /-\textipa{ʦʰiː}/ spatial: a place in general

- *tsíiba* /-\textipa{ʦʰiːpa}/ spatial: peninsula

- *tsjtyo* /-\textipa{ʦʰiːtʰo}/ shape: a line around an object’s circumference

- *tsipáradu* /-\textipa{ʦʰiːpʰarɛːu}/ shape: tear or rupture

- *tsipóou* /-\textipa{ʦʰiːpʰoːu}/ shape: a big bend made in something (e.g., a pole bent without breaking)

- *tsí* /-\textipa{ʦʰi}/ being: a baby

- *tsó* /-\textipa{ʦʰo}/ shape: long things that gradually taper toward the tip

- *tsoodónoho* /-\textipa{ʦʰoːtoːno}/ being: a person, animal or animal with a large chest

- *tsohna* /-\textipa{ʦʰoːna}/ shape: a pyramidal or upright cone

- *tsóóho* /-\textipa{ʦʰoːʔo}/ botanical: plants or trees with one root but a number of trunks

- *tsóója* /-\textipa{ʦʰoːha}/ shape: hollow cone, funnel-shaped

- *tsovúruhu* /-\textipa{ʦʰoːʔu:ɾuːʔo}/ shape: a person, animal or thing with missing limb-like parts, e.g., tree trunk with the branches cut off, a carcass with the limbs removed

- *tsúuího* /-\textipa{ʦʰuːʔo}/ being: a person or animal with short bent arms or legs

- *tsújis* /-\textipa{ʦʰuːhi}/ shape: the flat, thin “ribs” that grow along the trunks of some trees

- *tsúuíri* /-\textipa{ʦʰuːɾi}/ shape: long narrow stip

- *tsúútsu* /-\textipa{ʦʰuːʦʰu}/ shape: a fragment (of something)
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-\(u\)/-①\(u\)/ shape: spherical, e.g., a ball, a marble
-\(o\)-\(ub\(ä\)/-①\(u\)\(p\(a\)/ being: a person missing an arm or a leg
-\(u\)-\(ub\(ō\)/-①\(u\)\(p\(ou\)/ shape: a small swelling on the surface
-\(u\)-\(ū\)(\(h\(a\)/-①\(u\)\(w\(a\)/ shape: a single kernel or chip (e.g., a kernel of wheat, a grain of sand)
-\(u\)-\(ū\)(\(h\(o\)/-①\(u\)\(w\)(\(o\)/ spatial: place where many vines hang from the trees
-\(u\)-\(h\(r\(o\)/-①\(u\)\(w\)(\(r\)(\(o\)/ shape: a tall pot or jar
-\(u\)-\(h\(ts\(ā\)(\(r\)(\(a\)(\(u\)/-①\(u\)\(w\)(\(s\)(\(h\)(\(r\)(\(a\)(\(u\)/ shape: hair standing on end, e.g., that of a porcupine
-\(u\)-\(j\(c\)(\(u\)(\(c\)(\(u\)/-①\(u\)\(h\)(\(k\)(\(h\)(\(u\)/ spatial: the place where two trails meet
-\(u\)-\(j\(ē\)(\(ē\)(\(h\)(\(o\)/ action: turning sideways to pass through a narrow place
-\(u\)-\(m\)(\(ī\)(\(c\)(\(ō\)/ or \(h\)-\(m\)(\(ī\)(\(c\)(\(ō\)/-①\(m\)(\(ī\)(\(k\)(\(h\)(\(ō\)/ shape: a very prominent forehead on man or animal (This is formed from ʔum\(i\)k\(h\)o -h\(ū\)m\(i\)k\(i\)c\(o\) ‘forehead’, which is formed from ʔ\(m\)i ‘face’.)
-\(u\)-\(m\)(\(ū\)(\(ū\)/-①\(u\)\(m\)(\(ū\)(\(u\)/ shape: lips held together very tightly
-\(u\)-\(n\)(\(b\)(\(a\)(\(u\)/-①\(u\)\(n\)(\(i\)(\(p\)(\(a\)(\(u\)/ shape: very big lips
-\(o\)-\(u\)-\(t\)(\(s\)(\(i\)(\(y\)(\(o\)(\(j\)(\(i\)/-①\(u\)\(t\)(\(s\)(\(h\)(\(i\)(\(j\)(\(i\)/ shape: lying on its side
-\(o\)-\(u\)-\(t\)(\(s\)(\(c\)(\(u\)(\(u\)(\(u\)/-①\(u\)\(t\)(\(s\)(\(h\)(\(w\)(\(k\)(\(w\)(\(w\)(\(u\)/ shape: tight fitting (e.g., a small shirt on a big man)
-\(v\)-\(a\)(\(j\)(\(a\)/-①\(β\)(\(a\)(\(h\)(\(a\)/ shape: rip in a cloth
-\(o\)-\(v\)(\(a\)(\(r\)(\(e\)/-①\(β\)(\(a\)(\(r\)(\(e\)/ being: a person controlled by a demon
-\(v\)(\(a\)(\(r\)(\(i\)/-①\(β\)(\(a\)(\(r\)(\(i\)/ shape: tattered, e.g., clothing
-\(o\)-\(v\)(\(e\)(\(c\)(\(h\)(\(i\)(\(c\)(\(y\)(\(o\)/-①\(β\)(\(e\)(\(t\)(\(i\)(\(k\)(\(h\)(\(o\)/ shape: very curved and flexible at the tip, e.g., a fishing rod
-\(o\)-\(v\)(\(e\)(\(h\)(\(r\)(\(ā\)(\(s\)(\(h\)(\(a\)/ shape: oval
-\(v\)(\(h\)(\(c\)(\(y\)(\(a\)/-①\(β\)(\(i\)(\(k\)(\(h\)(\(a\)/ shape: sharply curved, e.g., a fishhook
-\(o\)-\(v\)(\(h\)(\(c\)(\(y\)(\(o\)/-①\(β\)(\(i\)(\(k\)(\(h\)(\(o\)/ shape: a thing that has a hook on the end
-\(v\)(\(j\)(\(v\)(\(i\)/-①\(β\)(\(i\)(\(s\)(\(i\)(\(i\)/ shape: a thing that has the shape of a large claw or fingernail
-\(v\)(\(i\)(\(v\)(\(i\)/-①\(β\)(\(i\)(\(s\)(\(i\)(\(i\)/ shape: elongated openings (e.g., the eye of an oriental person)
-\(v\)(\(i\)(\(u\)/-①\(β\)(\(i\)(\(u\)/ shape: a piece of something
-\(v\)(\(i\)(\(a\)/-①\(β\)(\(i\)(\(a\)/ shape: a puncture made by a needle
-\(v\)(\(i\)(\(o\)(\(s\)(\(o\)(\(c\)(\(o\)/ shape: a very round hole (e.g., the hole made by rounding the lips)
-\(v\)(\(i\)(\(t\)(\(s\)(\(o\)/-①\(β\)(\(i\)(\(s\)(\(o\)/ shape: tubular with both ends open (e.g., a pipe)
-\(v\)(\(u\)(\(ū\)(\(d\)(\(o\)/-①\(β\)(\(u\)(\(w\)(\(t\)(\(o\)/ shape: a short, broken piece of a vine
-\(v\)(\(u\)(\(ū\)(\(r\)(\(u\)/-①\(β\)(\(u\)(\(w\)(\(t\)(\(u\)/ shape: short and thick
-\(w\)/-①\(k\)(\(p\)(\(a\)/ shape: long, flat and roughly rectangular, e.g., plank, door, bench, table, machete
-\(w\)-\(c\)(\(h\)(\(a\)(\(j\)(\(a\)(\(u\)/-①\(k\)(\(a\)(\(t\)(\(h\)(\(a\)(\(h\)(\(a\)(\(u\)/ shape: things in total disarray
-\(w\)-\(a\)(\(c\)(\(h\)(\(é\)(\(k\)(\(h\)(\(e\)/ shape: two things crossed, e.g., a cross
-\(w\)-\(a\)(\(d\)(\(a\)(\(r\)(\(i\)(\(u\)/-①\(k\)(\(a\)(\(t\)(\(r\)(\(a\)(\(r\)(\(i\)(\(u\)/ shape: lodged between other things
-\(w\)-\(d\)(\(a\)(\(k\)(\(h\)(\(e\)/ spatial: the place at which something divides (e.g., a branch on a tree or a trail leads off in another direction)
-\(w\)-\(a\)(\(d\)(\(i\)/-①\(k\)(\(a\)(\(t\)(\(t\)(\(i\)/ shape: a long split or crack (as there might be in a board or in a wall)

Footnote:
7Note that the first syllable bears high tone, unlike the other trisyllabic classifiers.
-wadsīroóho /-kpətsiːroː/ shape: bulged out due to internal pressure, e.g., cheeks bulging with coca powder
- waāhye /-lkpaʔ?e/ object: crumbs
- waāhyo /-lkpaʔo/ shape: things lying side by side, e.g., a log raft
- wajca /-lkpaʔkʰa/ botanical: branch of a tree (or perhaps other rigid limb-like projections)
- wajcyo /-lkpaʔkʲʰo/ shape: a hook on the end of a pole used to pull down fruit
- waju /-lkpaʔu/ shape: ground that is not level
- wallááu /-kpəʔaːu/ position: a thing with the open side up, a person on his or her back
- waáne /-lkpaʔe/ shape: end of a hip roof
- waanjiriwa /-lkəniːrikpa/
  1. shape: puffed up chest, e.g., that of a strutting turkey
  2. figurative: a man showing his prowess
- waanúwa /-lkpaŋulka/ shape: a notch made on a pole or tree
- wapirááu /-lkpaʔirəːu/ position: clothes hung over a line to dry
- waríjaáu /-kpəriːhəːu/ position: out of place, misaligned
- watyúúu /-kpəʔthəːu/ position: not lined up (with the orientation of its background)
- watsíu /-lkpaʔtʰiːu/
  1. condition: a thing not finished
  2. condition: a thing of two colors
- watsújaáu /-lkpaʔsʰuhaːu/ shape: flared out, e.g., a skirt that spreads out at the bottom
- wayááu /-lkpaʔaːu/ shape: turned to one side, e.g., person looking to the side, canoe not going straight
- waáwa /-lkpaʔka/ shape: a canal or ditch
- wayóóho /-lkpaʔoʔo/ shape: a thing twisted at the tip
- wayóóji /-lkpaʔoːhi/ shape: a thing out of its right shape, e.g., a twisted mouth
- weéwe or -weéwe /-lkpeːkpe ~ -lkpeːkpe/ shape: a very short crack
- yojke /-ljəkʰe/ shape: a long straight stretch
Appendix F

Bora Kinship Terminology

Bora kinship terminology reflects the traditional social structure of this polity/ethnic group.¹

The Bora people refer to themselves as mɨ’amúnàâ (mɨ’amúnaa) ‘the people’ and all others as ts’hît’hê múnàâ (tsjîtye múnaa) ‘other people’.

The Bora were organized into clans. Each clan includes all those descended from a common ancestor through the male line. Each clan had a chief (áβ’êhùuû’pê ávyéjuûbe) who was in full control of those in his clan fàβ’êhùhû (íavyéju).

Each clan traced its ancestry back to a totem (îh’éênê ɪjyéene), either animate or inanimate; this was revered and not eaten by the clan members. The clan totem was the name (ît’hô’îhîpà ɪtyohjîba) of the clan members. Each clan had its own design (iî:nô’î ɪoonô’na) for painting the body or some personal object.

Originally each clan lived in a large communal house, the rear of which was occupied by the chief. Each married couple with their children had a platform on which they slept and under which they prepared their food. Each male member of the clan brought his bride to live with his close relatives (i.e., the traditional residence pattern was patrilocal).

Today the picture is changing, although much of the original social structure can still be seen. The big house is smaller. It is seldom used for sleeping quarters except by the chief and his immediate family. Others now sleep in individual family houses with raised floors. However, the

¹See (Thiesen 1975b), an earlier description of Bora kinship terminology, on which this chapter is based.
big house is still used for the preparation of food and for social activities.

The system of Bora kinship terms is summarized in two diagrams. The terms of reference are diagrammed in figure F.1, followed by the corresponding terms. The terms for addressing a kinsman are diagrammed in figure F.2, followed by the corresponding terms.

![Figure F.1 Terms of reference for kinsmen](image)

The following terms—corresponding to figure F.1—are used to refer to someone in terms of kinship relationship:

1. átʰáːhɨ̀ɨ́ (átyáájɨɨ) ‘my husband’
2. átʰáːpàá (átyáábaá) ‘my wife’
3. čiʔiʔjó (lilihíyo) ‘father’, tʰáːkʰáːnìí (tááçáánií) ‘my father’
4. kpàʔáró (waháro) ‘mother’, tʰáːtsʰɨ́ːhùuru (táátsfíjuú) ‘my mother’
5. à⁵ʔi (ajchi) ‘my son’
6. àhʲɯ́kpà (ajyúwa) ‘my daughter’
7. tʰáɲàːpè (táñahbe) ‘my brother (or male first cousins)’
8. tʰáɲàːʃè (táñádlle) ‘my sister (or female first cousins)’
9. nánjú (naniyo) ‘uncle’, tʰáɲáːnií (tááñáhnií) ‘my uncle’
10. mèʔérò (methéro) ‘aunt’, tʰáːmːè (táíímye) ‘my aunt’
11. tʰáːtʃíjò (tahdíyo) ‘grandfather’, tʰáːtʰáːtʃí (táátyáhdií) ‘my grandfather’
12. tʰáːtʃírò (taalléro) ‘grandmother’, tʰáːtʰáːtʃíʃè (táátyáálleé) ‘my grandmother’
13. tóʔipù (dómiwu) ‘nephew’, tʰáːpːèːpè (tábyeebe) ‘my nephew’
14. tóʔípù (dohuwu) ‘niece’, tʰáːpːèʔʃè (tábyehlle) ‘my niece’
15. àʔkʰípù (ahchíwu) ‘grandson’, tʰáːáʔʃè (táááóchí) ‘my grandson’
16. àʔkʰúkpà (ahcyúwa) ‘granddaughter’, tʰáːáʔkʰúkpà (tááácyuwu) ‘my granddaughter’
17. átʰónúːpè (átyónuúbe) ‘my brother-in-law’

²tʰáːtsʰìméné (tájtsiíméne) ‘my child’ is also used.
³tʰáːtsʰìméné (tájtsiíméne) ‘my child’ is also used.
The following terms—corresponding to figure F.2—are used to address someone in terms of their kinship relation to the speaker:

1. ʧíʔìˣ (llíhij) ‘father, son, nephew, grandson, son-in-law’
2. kpáʔàˣ (wáhaj) ‘mother, daughter, niece, granddaughter, daughter-in-law’
3. pʰɛ́ɲɯ̀ˣ (péñuj) ‘brother, male first cousin, nephew’
4. tóˀmìˣ (dóhmij) ‘sister, female first cousin, niece’
5. mɯ̀ːpɛ̀ˣ (muúbej) ‘husband’
6. mɯ̀ːʧɛ̀ˣ (muúllej) ‘wife’
7. nánìˣ (nánij) ‘uncle, father-in-law’
8. méʔɛ́ˣ (méhej) ‘aunt, mother-in-law’
9. tʰáˀtìˣ (táhdij) ‘grandfather’
10. tʰàːʧɛ̀ˣ (taállej) ‘grandmother’
11. átʰòˣ (átyoj) ‘brother-in-law’
12. púˀhîˣ (búhjij) ‘sister-in-law’
13. tʰá勰 (tánij) ‘child’s father-in-law or mother-in-law’

Commentary:
- There are kinship terms for five generations: ego’s, parents’, grandparents’, children’s, and grandchildren’s. Great-grandparents are referred to as grandparents, which term also refers to one’s immediate ancestors. Great-grandchildren are referred to as grandchildren.
- The system does not make a distinction between siblings and cousins; both are called “brothers” or “sisters”.

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• Bora does not distinguish cross-cousins\textsuperscript{4} and parallel cousins.\textsuperscript{5}
• The terms of address for father/son and mother/daughter are reciprocal.
• There are terms of reference and address for one’s child’s in-laws, that is, the parents of one’s child’s spouse.

We will now present the Bora kinship system in terms of the following eight basic relationships:
1. husband ↔ wife,
2. sibling ↔ sibling,
3. parent ↔ child,
4. grandparent ↔ grandchild,
5. uncle/aunt ↔ nephew/niece,
6. brother-in-law ↔ sister-in-law,
7. parents-in-law ↔ son-/daughter-in-law, and
8. fathers-in-law ↔ mothers-in-law
9. not related by kinship

\section*{F.1 Husband — wife relationship}

A person may only marry someone outside of his or her lineage as indicated by the kinship terms. Anyone not related (as indicated by the kinship terms) is a potential partner.

After marriage the wife joins the clan of her husband although she never loses identity with her own clan. If her husband dies she returns to live with her own clan. Children belong to the father’s clan and stay with him if a separation occurs.

The husband refers to his wife as \textit{áṭʰáːpàá} (átyáábaá) ‘my wife’ and addresses her as \textit{muːṭṭëx} (muúllej).\textsuperscript{6} Other persons refer to his wife as \textit{íṭʰáːpàá} (ítyáábaá) ‘his wife’ or \textit{mèkpà} (mewa) (before child-bearing) and \textit{mèkpàⁿiːʔʲò} (méwañííhyo) (after child-bearing).

The wife refers to her husband as \textit{áṭʰáːhɨ̀ɨ́} (átyáájɨɨ) ‘my husband’ and addresses him as \textit{muːpëx} (muúbej).\textsuperscript{7} Other persons refer to her husband as \textit{íṭʰáːhɨ́} (ítyáájìí) ‘her husband’ or \textit{áḥ’ùùú} (ájyuú).

\textsuperscript{4}That is, mother’s brother’s children and father’s sister’s children.
\textsuperscript{5}That is, mother’s sister’s children and father’s brother’s children.
\textsuperscript{6}This is \textit{muː-ṭṭ-ëx} Muú-llë-j (age.mate-<SgF>-voc). (Thiesen & Thiesen 1998:190) gives its meaning as ‘sister (vocative)’, used to address a sister, a female cousin, or another woman about the same age.
\textsuperscript{7}This is \textit{muː-pë-ëx} muú-be-j (age.mate-<SgM>-voc), used to address a man about the same age who is a brother or friend.
An older man may address his wife—as a term of endearment—with nɛ́ˀnìˣ (néhni) ‘ugly’.

F.2 Sibling — sibling relationship

The sibling relationship extends to any who have the same grandfather and grandmother. Thus siblings and first cousins refer to each other as tʰáɲàːpè (táňahbe) ‘my brother’ or tʰáɲàːʧɛ̀ (táñaálle) ‘my sister’. Other persons refer to them as ɪɲàːpè (ɪɲahbe) ‘his or her brother’ or ɪɲàːʧɛ̀ (ɪɲaálle) ‘his or her sister’.

A brother addresses his sister or a female cousin as tóⁿìˣ (dóhmij). A sister addresses her brother or a male cousin as pʰɛ́ɲɯ̀ˣ (péñuj).

Second cousins are not “siblings,” so are eligible as marriage partners. There is no term for second cousins.

F.3 Parent — child relationship

Parents refer to their children as átsʰɨːmɛ̀ (átsɨɨ me) ‘my children’ or tʰáːtsʰɨːmɛ̀nɛ̀ (tájtsɨɨméne) ‘my child’. A son is referred to as átʃí (ajchi) or átʃíkpu (ajchíwu) and is addressed as either tʃíʔìˣ (llíhij), tʃíʔìjòˣ (llihíyo) or tʃíʔìführen (llihíuj). A daughter is referred to as áhʔúkpa (ajyúwa). She is addressed as either kpáʔàˣ (wáhaj), kpáʔáɾòˣ (wahároj) or kpáʔáɯ̀ˣ (waháuj). Others refer to the son as íʃí (íllií) ‘his or her son’ and to the daughter as ítsi (ídsi) ‘his or her daughter’.

Children refer to their father as tʃíʔìjò (llihíyo), tʃíʔìführen (llihíuj) or tʰáːkʰáːnìí (táátsɨ́ ɨ́ juú) ‘my father’ and address him the same as a parent addresses a son: tʃíʔìˣ (llíhij), tʃíʔìjòˣ (llihíyo) or tʃíʔìführen (llihíuj).

Children refer to their mother either as kpáʔáɾò (waháro), kpáʔáɯ̀ (waháu) or tʰáːtsʰɨːhùrù (táátsòjuú) ‘my mother’ and address her the same as a parent addresses a daughter: kpáʔàˣ (wáhaj), kpáʔáɾòˣ (wahároj) or kpáʔáɯ̀ˣ (waháuj). Thus parents and children use reciprocal terms if address.

Others refer to their father as íːkʰáːnií (ícyááníí) ‘his or her father’ and to their mother as íːtsʰɨːhùrù (íítsòjuú) ‘his or her mother’.

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F.4 Grandparent — grandchild relationship

Grandparents refer to a grandson or a sibling’s grandson as àˀʧʰíkpᵣû (ahch’iwu) or tʰâːˀʧʰᵣᵣ (táiáách’) ‘my grandson’ and address him asʧᵣᵡᵣᵢ (llihij), ʧᵣᵡᵣᵢjᵢ (llihýoj) or ʧᵣᵡᵣᵢjᵢ (llihúj). A granddaughter or a sibling’s granddaughter is referred to as àˀkʲʰᵣᵣₜₐ (ahcúw’a) or tʰâːˀkʲʰᵣᵣₜₐ (táiáácyuwa) ‘my granddaughter’, and addressed as kpₐᵣᵦᵢ (wáhaj), kpᵣᵦᵦᵢ (wahároj) or kpₐᵣᵦᵠᵦᵢ (waháuj). Others refer to them as fiₐːˢᵣᵦᵢ (fiáách’) ‘his or her grandson’ and fiₐːₐkᵣᵦᵦᵢ (fiáácyuwa) ‘his or her granddaughter’.

Grandchildren refer to a grandfather as tʰàˀtıjᵣᵢ (tahdíyo), tʰâːˀtıᵣᵦᵦᵢ (tahdíu) or tʰáːˀtᵣᵦᵦᵦᵦᵦᵢ (táátyáhdií) ‘my grandfather’ and address him tʰàˀtıjᵢ (tahdíj), tʰâːˀtıjᵣᵢ (tahdíj) or tʰàːˀtıᵣᵦᵦᵦᵦᵦ (tahdíu).

A grandmother is referred to as tʰₐːtᵣᵦᵦᵦᵦ (taalléro), tʰₐːtᵣᵦᵦᵦ (taalléu) or tʰₐːtᵣᵦᵦᵦᵦ (taalléélë) ‘my grandmother’, and addressed as tʰₐːtᵣᵦᵦᵦᵦ (taalllej), tʰₐːtᵣᵦᵦᵦ (taalllej) or tʰₐːtᵣᵦᵦᵦ (taalléuléj).

Others refer to them as ɪᵣᵦᵦᵦᵦ (íídyáhdií) ‘his or her grandfather’ and ɪᵣᵦᵦᵦᵦ (íítyáaléélë) ‘his or her grandmother’. The same terminology is used for maternal as well as paternal grandparents. tʰₐːtᵣᵦᵦ (tahdíj) and tʰₐːtᵣᵦᵦ (taalßëlej) are also used when addressing a man or woman old enough to be one’s grandfather, even though they are unrelated.

F.5 Uncle/aunt — nephew/niece relationship

An uncle or aunt refers to a son of any whom they address as tʰₐⁿᵃˀpᵦ (táⁿahbe) ‘my brother’ or tʰₐⁿᵃːtᵣᵦᵦ (táⁿaalë) ‘my sister’ with the term tômᵣᵦᵦᵦ (dómiw’u) or tʰₐⁿᵃːpᵦₐᵦ (tábyèébë) ‘my nephew’ and address him either as tᵣᵦᵦᵦ (llihij) or pₐᵣᵦᵦᵦ (pénuːj).

They refer to a daughter of any whom they address as tʰₐⁿᵃˀpᵦ (táⁿahbe) ‘my brother’ or tʰₐⁿᵃːtᵣᵦᵦ (táⁿaalë) ‘my sister’ with the term tôːʔᵦᵦᵦᵦ (dómiw’u) or tʰₐⁿᵃːpᵦₐᵦ (tábyèébë) ‘my niece’ and address her as kpₐᵣᵦᵦᵦᵦ (wáhaj) or tᵣᵦᵦᵦᵦ (dóhmij). Others refer to them as ᵃᵦᵦᵦ (ibyeébe) ‘his or her nephew’ and ᵃᵦᵦᵦ (ibyeébë) ‘his or her niece’. Thus all one’s cousins’ children are included as nephews and nieces.

A nephew or niece refers to a brother of his or her father or mother as nₐⁿᵦᵦᵦ (n₀ⁿᵦᵦᵦ), nᵦᵦᵦ (n₀nᵦᵦ) or tʰₐⁿᵃˀₐᵦᵦ (táⁿahnií) ‘my uncle’ and address him as nₐᵦᵦᵦ (n₀nᵦᵦ), nᵦᵦᵦ (n₀nᵦᵦ) or nᵦᵦᵦ (n₀nᵦᵦ). The sister of a parent is referred to as mᵦᵦᵦᵦ (m₀₀hëro), mᵦᵦᵦ (m₀₀hë) or tʰᵦᵦᵦᵦ (tá₀₀mye) ‘my aunt’ and addressed as mᵦᵦᵦ (m₀₀hëj), mᵦᵦᵦᵦ (m₀₀hëj) or mᵦᵦᵦᵦ (m₀₀hëj). Others refer to them as íⁿᵃˀₐᵦᵦ (ínahnií)
‘his or her uncle’ and í: mellé (í:myee) ‘his or her aunt’. Wives and husbands of father’s or mother’s brothers or sisters are included. nàːnìx (naanj) ‘uncle’ and méʔx (mehjej) ‘aunt’ are also used to politely address people of that age group, even though they are unrelated.

F.6 Brother-in-law — sister-in-law relationship

A husband refers to his wife’s brother or a husband of any whom he calls tʰáɲàːʧɛ̀ (tǎñaálle) ‘my sister’ as átʰónùːpɛ̀ (átyónuúbé) ‘my brother-in-law’, and addresses him as átʰòˣ (átyoj).

A wife refers to her husband’s brother or a husband of any whom she calls tʰáɲàːʧɛ̀ (tǎñaálle) ‘my sister’ also as átʰónùːpɛ̀ (átyónuúbé) ‘my brother-in-law’ and addresses him átʰòˣ (átyoj) as well. Others refer to him as ítʰónùːpɛ̀ (ítyónuúbé) ‘his or her brother-in-law’.

A husband refers to his wife’s sister or a wife of any whom he calls tʰáɲàːpɛ̀ (tǎñaːbe) ‘my brother’ as átʰónùʧɛ̀ (átyónulle), and addresses her pùːhîx (búhjij).

A wife refers to a sister of his brother or a wife of any whom she calls tʰáɲàːpɛ̀ (tǎñaːbe) ‘my brother’ also as átʰónùʧɛ̀ (átyónulle) and addresses her as pùːhîx as well. Others refer to her as ítʰónùʧɛ̀ (ítyónulle) ‘his or her sister-in-law’.

F.7 Parents-in-law — son-/daughter-in-law relationship

A son-in-law, the husband of any addressed as tʰápːɛ̀ʧɛ̀ (tábyehlle) ‘my niece’, and the husband of any addressed as tʰáːáːkʱıpà (táiiácyuwa) ‘my granddaughter’ are referred to as áːhjāː (ájyaa) ‘my son-in-law’. He is addressed by the parents-in-law as tʃiʔìx (íljih) ‘son’. Others refer to him as iːhjāː (iájya) ‘his or her son-in-law’.

A husband’s parents refer to their daughter-in-law, the wife of any whom they call tʰápːːpɛ̀ (tábyeebe) ‘my nephew’ and the wife of any whom they call tʰáːáːʧi (táiiáchii) ‘my grandson’ as tʰáiːːhà (táiiája) ‘my daughter-in-law’ and address her as kpáʔx (wóhaj) ‘daughter’. Others refer to her as fiːːhà (fiájya) ‘his or her daughter-in-law’.

A husband refers to his wife’s father and mother, her uncles and aunts and her grandfather and grandmother as ápːːpɛ̀ (ábáábeé) ‘my in-law’
and addresses the father and uncles as náníɣ (náníj) ‘uncle’, and the mother
and aunts as méʔeɣ (méhej) ‘aunt’. He addresses the grandfather as tʰáʔtìɣ (táhdijj) and the grandmother as tʰàːʧɛ́ɣ (taállej). Others refer to them as ípáːpɛ́ (íbáábeé) ‘his in-law’.

A wife, in the same way, refers to her husband’s father and mother,
his uncles and aunts and his grandfather and grandmother as ápáːpɛ́ (ábáábeé) ‘my in-law’ and addresses the father and uncles náníɣ (náníj) ‘uncle’ and the mother and aunts méʔeɣ (méhej) ‘aunt’. She addresses the grandfather tʰáʔtìɣ (táhdijj) and the grandmother tʰàːʧɛ́ (taállej). Others refer to them as ípáːpɛ́ (íbáábeé) ‘her in-law’.

F.8 Fathers-in-law — mothers-in-law relationship

Parents refer to their child’s father-in-law as tʰániúːpɛ́ (tániúúbe) ‘my child’s father-in-law’ and address him tʰáníɣ (tánij) and to their child’s mother-in-law as tʰániúːʧɛ́ (tániúúlle) ‘my child’s mother-in-law’ and address her tʰáníɣ (tánij) also. These are reciprocal terms used between the husband’s and wife’s parents. Others refer to them as ínìúːpɛ́ (ínìúúbe) ‘his or her father-in-law’ and ínìúːʧɛ́ (ínìúúlle) ‘his or her mother-in-law’.

F.9 Addressing persons not related by kinship

In polite speech one uses the following terms of address with persons who are not related by kinship:

1. one’s own generation
   male: mûrpiɣ (muúbij)
   female: mûrʧɛ́ɣ (muúllej)
2. member of one’s parent’s generation
   male: náníɣ (náníj) ‘uncle’
   female: méʔeɣ (méhej) ‘aunt’
3. member of one’s grandparent’s generation
   male: tʰátiɣ (tádijj) ‘grandfather’
   female: tʰàːʧɛ́ɣ (taállej) ‘grandmother’
4. member of one’s child’s or grandchild’s generation
   male: tʃiʔiɣ (llíhij) ‘son’
   female: kpáʔeɣ (wáhej) ‘daughter’

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Appendix G

Bora Texts

Included below are six native-authored texts, written as the Bora people write the Bora language.1 The first four were written in the late 1950s and early 1960s by school children ranging in age from 12–16.2 Texts 1, 2, and 4 are folktales. Text 5 is an imagined drama; the sixth an explanation.

3. Ávyéjuubévwá Péé Bájú Pañeũvu ‘A chief goes to the jungles’.
4. Pñiyéebé Ajyúwá Uubálle ‘The Creator’s Daughter’ (Mibeco N. et al. 1975:6–19). This story is important to the Bora people. It has the moral that sexual relation with a close relative brings drastic consequences.3
5. Ajcyómé Óũmẽ ‘They cultivate the field’. This is an imagined drama. Note that the dialog is interrupted only three times by the narrator.
6. Ílu Múúne Mèwákímyé ‘This is how we work’ was written by Julia Mibeco based on her experience helping with the household chores in the Thiesen home. An appropriate subtitle might be: “The curious ways of the foreigners.” It is included because of its accessibility to those familiar with western culture (setting table and such things).

1 Eduardo Soria translated the texts into Spanish. Wes Thiesen translated them into English and added the glosses. David Weber added the analysis in the footnotes.
2 Julia Mibeco, one of the authors, corrected the spelling and made editorial changes. Two of these stories were included in (Mibeco N. et al. 1975).
3 Marriage is prohibited between first cousins since they are regarded as siblings, as reflected in the kinship terminology; see appendix F.
At the foot of each page of text is given a tentative analysis of each sentence. These are very schematic, abstracting only the major structural and functional characteristic of each sentence.

**Abbreviations**

The following abbreviations and conventions are used in these analyses, in addition to some from pages xxix–xxxiii.

| apposition (between two appositive constituents) | the recipient of “give” |
| cleft (contrastive focus) | F feminine |
| juncture between the modifier and head in a genitive construction | frs frustrative, contraexpectation |
| (BE) implicit ‘be’ | Goal NP with “goal” case marking |
| Ø, coindexed null pronoun | Goal<sub>keme</sub> goal-marked noun phrase indicating the thematic argument of “give” |
| Adj adjective | impl implore |
| Adv adverb or adverbial clause | Instr NP with “instrument” (oblIn) case marking |
| Adv<sub>D</sub> adverbial clause with a different subject | Interj interjection |
| Adv<sub>S</sub> adverbial clause with the same subject | -KI implicit /-ki/ ‘purpose’ |
| AdvDeg adverb of degree | Link sentence-initial connector, usually an anaphoric pronoun |
| Aux auxiliary | Loc NP with “location” case marking |
| Aux-s auxiliary verb with a classifier subject | Man NP indicating manner |
| (BE) implicit copula | Neg negative |
| Cir circumstance or circumstantial adverbial clause, | NP noun phrase |
| Cir<sub>d</sub> circumstantial adverbial clause with a different subject, | O object of a verb of saying, telling,… |
| Cir<sub>S</sub> circumstantial adverbial clause with the same subject, | oblIn oblique (case marker) for inanimate noun phrases |
| Cir<sub>n</sub> the n-th circumstantial adverbial clause with a same subject, | PostPos pospositional phrase |
| ComplOfKnow complement of the verb “know” | PredCmpl predicate complement |
| Cond conditional | ProSent pro-sentence |
| CoS co-subject | pur purpose |
| Dem demonstrative | Pur purpose clause, noun phrase indicating purpose, |
| DO direct object | Pur<sub>d</sub> purpose clause with a different subject, |
| DO<sub>recip</sub> direct object indicating | Pur<sub>s</sub> purpose clause with a same subject |
| Q interrogative pronoun. This may be followed by the function: | ©2012 SIL International |
Conventions

\( X_i, X_j, X_k \) The subscripted indices indicate coreference, e.g., \(<\text{Goal}_i>\) to indicate that this Goal is coreferential to another constituent bearing a subscripted \( i \).

\( X^* \) \( X \) will be further described in the same note, e.g., \( \text{DO}^* \) indicates that this direct object will be further described.

\( X_s \) The subject of \( X \) is coreferential to the subject of the superordinate clause, e.g., \( \text{Adv}_s \) is an adverbial clause with same subject as the higher clause.

\( X_d \) The subject of \( X \) is not coreferential to the subject of the superordinate clause, e.g., \( \text{Cir}_d \) indicates that the subject of this circumstantial clause is not coreferential to the subject of the higher clause.

\( X^1, X^2 \) Superscripted digits distinguish constituents to be further described in the annotation, e.g., to distinguish \( \text{Cir}_1 \) and \( \text{Cir}_2 \).

\(<X>\) The wedges indicate that the enclosed is a sentence-initial thematic link.

**Early Attachment.** The analyses (given at the foot of the page) generally favor early attachment. For example, the sentence in 1194a could be analyzed either as in 1194b or as in 1194c:

(1194) a. … baajúrí me ɨ́htune mé njtyúhi
b. …[[manioc we peel] we wash]
c. … [manioc [we peel] we wash]

b. ‘after having peeled the manioc, we wash it’
c. ‘after having peeled it, we wash the manioc’
In 1194b, the direct object ‘manioc’ is attached to the verb ‘we peel’ and then this phrase is attached to ‘we wash’. hence [[DO s-V] s-V]. In 1194c, on the other hand, the attachment of ‘manioc’ is deferred until ‘we peel (it)’ has been attached to ‘we wash’; hence [DO [s-V s-V]].
A Woman Becomes a Toucan

1. A young girl was dieting.
2. She went every day to the field with her cassava. Thus, she always takes řejilla palm shoots to eat (with meat).
3. Then some said, “Why does she always take cassava with her to the field?”
4. After saying that they followed her one day.
5. They went after her at a distance.
6. While they were looking she pulled up some řejilla and went along eating it.
Then she seeing them, put one between her lips and flew up high becoming a toucan. Then they came and told, “She always takes ñejilla to eat together with her cassava. After seeing us she flew up and became a toucan.” That is how she became a toucan.


toucan-animal

A man went with his wife into the jungle. Upon arrival they made a little shelter. He put his wife into the shelter and left to go to where he would set his trap.

Meanwhile, becoming like a human being, an agouti took the wife. Then he (the man) arrived to an empty place. That wife was not there. For that reason his wife did not answer his calling.
Then he, the agouti, caused her to arrive to a festival, to where there was an animal festival. That wife kept looking at all the different animals that were at the festival. A deer was there. A tapir was there. A snake was there. They were all animals, that many.

Then the wife looked at everything that was in the big house. However, that place was empty. And while they were dancing she...
[i wáhtsi]-ne.  

self dance-<Ø> this-<like>-only-rpt-rem
dance-<ø> 13 Í-llu-ré-vá-a

14 Aa-né-vá-a me tsítsi-ivé-dú

sleep-<SgF> thm-<Ø>-rpt-rem SAP white-go.do-<like>
cúwa-lle. 14 Í-llu-ré-vá-a

this-<like>-only-rpt-rem

cúwa-lle. 14 Aa-né-vá-a me tsítsi-ivé-dú

sleep-<SgF> thm-<Ø>-rpt-rem SAP white-go.do-<like>

íjcyá]-ne. 15 Tsáhá-jucó-vá-a mú-ubá-rá

be-<Ø> no-focus-rpt-rem WH-<SgM>-frs

íjcyá-júcoo-tú-ne

be-now-neg-<n> 15 No one was there.

V 14 Link Time V-s Result, (where Time = [s-V]-sim; Result, = [Loc s-V]-<Ø>) 15 Neg || S V.
A Chief Goes to the Jungle

A chief went into the jungle to hunt for animals. His son also went. The chief got his gun. He gave his gun to his son. His son took the gun. Also he took a lot of food.

The chief wants to get cloth. Therefore he went to the jungle to get skins. They also took a sleeping net into the jungle.

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There were many mosquitos in the jungle.

Therefore the chief took a sleeping net.

Also he took salt.

They went a long way into the jungle.

The chief saw a partridge.

He said to his son, “Quickly shoot the partridge so we can eat.”

His son said, “OK.

Quickly bring the gun.”

Therefore the chief ran to where the gun was.

He quickly brought...
his gun to his son. 20 He hunted for a partridge. 21 He did not see one. 22 The partridge fled. 23 However he saw a squirrel. 24 The son got the squirrel the chief shot. 25 He took it to eat.

26 “OK let’s go,” said the chief.

27 They went a long way into the jungle. 28 There the chief’s son made a shelter. 29 He made the shelter well. 30 He also made a floor. 31 He did not make steps. 32 He made a

24 DOi | DO S V (where second DO = [S Øi V])  25 DO V-s Pur, (where Pur, = [s-V])

26 “ProSent Adv V” S V (Note: the second-position clitic follows the subject of the quote margin.)

27 Goal | Goal V-s  28 Loc S Do V  29 Adv DO V-s  30 Sim DO
Ávyéjuubéváa Péé Bájú Pañévu

A

Ávyéjuubéváa Péé Bájú Pañévu

di-bye méénu-tú. 32Llijyá-cóóha-vá-a
that-<SgM> make-neg sweep-<fork>-rpt-rem
méenu-úbe. 33Aa-bé-vá-a [núújúwá pañé]
made-<SgM> thm-<SgM>-rpt-rem shelter inside
llijyáá-hi. 34[Aa-né booné]-vá-a cuwá-ja
sweep-<t> thm-<ø> after-rpt-rem sleep-<shelter>
pícyo-obe [wá́jí hallú-vu]. 35a “Áyu llíhi-j”
pút-<SgM> floor top-goal ready papa-voc
nee-bé-vá-a. 35b “Tsúúca ó ímivyé-hí.” 36Oví
say-<SgM>-rpt-rem already I finish-<t> wait
mé cúwa-j.” SAP sleep-voc
Ávyéju-ubé-vá-a cóó-va-té-h
reign-<SgM>-rpt-rem firewood-have-go.do-<t>
[cúújuwa i myéénu-ki]. 38Ímíh-ye-vá-a
fire self make-pur good-only-rpt-rem
cúújuwa méénu-úbe. 39[Aa-né
fire made-<SgM> thm-<ø>
booné]-vá-a nú-jpacyo újcu-úbe.
after-rpt-rem water-<liquid> get-<SgM>
Áá-ne-má-vá-a néépícýó-ke tu-ube
thm-<ø>-with-rpt-rem squirrel-objAn cook-<SgM>
cúújúwá hallú-vu. 41Áá-ne-vá-a
top-goal thm-<ø>-rpt-rem
cánaamá-nu-úbe. 42Ímíh-ye-vá-a majcho
salt-do-<SgM> good-only-rpt-rem food
ávyéju-ube túú-hi. 43Mááho-vá-a i
reign-<SgM> cook-<t> cassava-rpt-rem self

broom. 33He swept the inside of the shelter. 34After that he put the net on the floor.
35a “Papa,” he said. 35b “I have already finished. 36Wait and we will sleep.”

37The chief went to get firewood to make a fire. 38He made a fire well. 39After that he got water. 40With that (the water) he cooked the squirrel on top of the fire. 41Then he salted it. 42The chief cooked the food superbly. 43After
getting cassava, he said to his son, “Ready, let’s eat.”

His son said, “OK.”

“Give me some cassava so I can eat it.”

They ate real well.

Then the chief said to his son, “OK, son, that’s enough.”

“Thanks.”

“Wash the dishes.”

He said, “OK.”

They went to the river to wash the dishes.

He washed the dishes with the soap he had taken along.

Then he took them to the āyuwa, májo me get-<event> self-son-obj say-<SgM> ready let’s SAP
dóó-KI”.

eat-pur

“Juúju”, í-lli-vá-a néé-hi. “Mááhó-vu oke d-aacu [o májcho-ki]”.

I-objAn youlmp-give I eat-pur

Ímíh-ye-vá-a májcho-mútsi.

good-only-rpt-rem eat-<DuM>

Aa-né-vá-a ávyéju-ube néé-h thm-<ø>-rpt-rem reign-<SgM> say-<t>

í-lli-kyéé: “Áyu(h) llíhi-j, éh-du-né-re”.

self-son-objAn ok son-voc that-<like>-<ø>-only

Te-hdú-juco”. “Níjtyu bohtá-mu”.

that-<like>-focus washlmp dish-pl

“Juúju”, ne-ebé-vá-a.

ok say-<SgM>-rpt-rem

Aa-né-vá-a pe-ebe téé-hi-vu thm-<ø>-rpt-rem go-<SgM> river-<stick>-goal

[bohtá-mu i níjtyu-ki]. Níjtyú-wa-vá-a
dish-pl self wash-pur wash-<slab>-rpt-rem

[i tsájtyé]-wa-ri níjtyu-ube bohtá-mu.
self take-<slab>-oblIn wash-<SgM> dish-pl

[øₐ s-V]

“ProSent” S V Goal_theme,i DO_recip s-V Pur_d (where Pur_d = [S øₐ V])

Adv V-s Link S V O “ProSent Voc PredCmpl (BE)”

PredCmpl (BE) s-V DO “ProSent” V-s

Link V-s Goal Pur_s (where Pur_s = [DO s-V])

<DOₐ > Instr_s V DO; Instr_s = [øₐ s-V]-head

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Ávyéjuubéváa Péé Bájú Pañévu

The chief said to his son, “Bring my flute so I can play it.”

The chief’s son hunted for the flute. He found it in the shelter and gave it to his father to play.

The chief’s son also could play the flute.

The chief talked with his son. He said to him, “To-
morrow we will go hunt animals. 62I want to shoot peccaries. 63I want to shoot peccaries also. 64Son, there are many mosquitos. 65Hurry, let's go to sleep.” 66“OK,” said his son.

67The chief woke up. 68Then he said, “Son let's eat. 69Already the sun is shining. 70I want that we go quickly.”

71Eating quickly they went to hunt for animals 72They went far. 73Already the chief saw
Ávyéjuubéváa Péé Bájú Pañévu

míne-jté-ke. 74[Áá-me elle-vú-vá-a] peccary-<AnPl>-objAn thm-<AnPl> place-goal-rpt-rem
dsííne-ébe. 75Ílli-vá-a dsíiné-h run-<SgM> self-sont-rpt-rem run-<t>
té-hdu-re. 76Mítyá-me-ké-vá-a that-<like>-only much-<AnPl>-objAn-rpt-rem
ánu-mútsi. 77Áá-me-ké-vá-a shoot-<DuM> thm-<AnPl>-objAn-rpt-rem
tsájtye-mútsi núújúwa-vu. 78Ávyéju-ubé-vá-a take-<DuM> shelter-goal reign-<SgM>-rpt-rem
waagóó-h té-bajcú-jí [téé-hí pañé-vu]. throw-<t> that-<bone>-pl river-<stick> inside-goal
ávve-ñá-vá-a cánanaá-nu-ube téé-heecó-ji. thm-<ø>-with-rpt-rem salt-do-<SgM> that-<meat>-pl
Ílli-vá-a cátoró-hcó-h té-miíh-ji. self-sont-rpt-rem stretch-mTr-<t> that-<skin>-pl
Ávyéju-ubé-vá-a Ítojtsó-h téé-heecó-ji. reign-<SgM>-rpt-rem roast-<t> that-<meat>-pl
Mífhe-né-vá-a dárfí-jtso-obé [núhba skin-pl-rpt-rem dry-caus-<SgM> sun
ájchu-vu]. shine-goal

83“Cuuvéh-ré-juco téé-ne”, ne-ebé-vá-peé. dark-only-focus that-<ø> say-<SgM>-rpt-rem
“Májo í-llu-ré-juco me májcho-KI o let’s this-<like>-only-focus SAP eat-pur I
cúwa-ki.” sleep-pur

72Goal V-s 73Adv S V DO 74Goal V-s 75S V Sim 76DO V-s
77DO V-s Goal 78S V DO Goal 79Cir V DO (Cir with -ma ‘with’ 80S V DO 81S V DO 82DO V-s Goal (Note that the Goal implies an implicit verb “place.”)
83“PredCmpl || S (BE)” V-s “V Sim s-V Pur_d (where Pur_d = [S V])

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84 Thus it was that after eating they went to sleep.

85 At night the chief heard an animal come to the shelter. For that reason he looked and saw a big jaguar coming. He was always eating peccaries.

86 Quickly the chief got his gun.

87 The chief’s son heard him shoot the jaguar.

88 The chief threw the jaguar from inside the sleeping net.

89 The chief’s son heard him shoot the jaguar.

90 Therefore getting up he quickly went to see the jaguar. The chief threw the jaguar from inside the sleeping net.
ávyéju-убe waagόó-h [téé-hí paňé-ву].
reign-<SgM> throw-<t> river-<stick> inside-goal

93Áа-ne-mа-vа-a té-mи-he pícyo-обе [ cújúwá
thm-<ʊ>-with-rpt-rem that-<skin> put-<SgM> fire
hallу-vу]. 94Аа-né-vа-a ne-эбе: “Áyu(h),
top-goal thm-<ʊ>-rpt-rem say-<SgM> ready
tsůúca mítya-ne mé hmiihé-ne. 95 Májo
already much-<ʊ> SAP skin-pl let’s go
ááhi-vú-ré-juco.”
home-goal-only-focus

96[Áа-né boonе]-vа-a ávyéju-убе
thm-<ʊ> after-rpt-rem reign-<SgM>
tsajtyé-h mи-he-ne. 97Í-lli-vа-a tsajtyé-h
take-<t> skin-pl self-son-rpt-rem took-<t>
téé-heecó-ji. 98 Juuvа-yi-vа-a ávyéju-убе
that-<meat>-pl trail-obln-rpt-rem reign-<SgM>
[mééni-kэ i ájtyúm̥]-ibe-ke anу-хі.
collared.peccary-objAn self see-<SgM>-objAn shoot-<t>
99[Cуuvе paňе]-vа-a wajtsí-mútsí ih
dark inside-rpt-rem arrive.here-<DuМ> self
jyá-vu. 100[Héэа-nee, mи-he-nee,
house-goal meat- pl skin- pl
éh-dú-ne-mа]-vа-a wajtsí-mútsí ih
that-<like>-<ʊ>-with-rpt-rem arrive.here-<DuМ> self
jyá-vu.
house-goal

= [s-V]; Pur = [V DO] 92DO S V Goal 93Cir DO V-s Goal 94Link
V-s “ProSent Adv S | S (BE)” 95V Goal
96TempPS V DO 97S V DO 98<Loc_i> S DO V; DO = [[ʊ_i DO_k
V]-head_k]] 99Time V Goal 100CoS V-s Goal; where CoS = [[N N
Sum]-case-clitics]; because CoS is oblique, there must be another sub-
ject

jaguar meat
into the river.
93In that cir-
cumstance, he
put the skin
on top of the
fire. 94Then he
said, “Already
we have lots of
skins. 95Let’s go
home.”

96After that
the chief took
the skins. 97His
son took the
meat. 98The
chief shot a col-
lared peccary
he saw on the
trail. 99When it
was dark they
arrived to their
house. 100They
arrived to their
house with
meat and skins
and such.

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We are coming now,” the chief said. We have brought a lot of meat to eat. Also we brought a lot of skins so we can get cloth.

The chief took the skins to town. With them, he got cloth. Those pieces of cloth he took to his house. Then he said, “Daughter, I brought it so you can sew my clothes. I also brought your cloth for you.”
Story of the Creator's Daughter

1. Pí-ívyé-ébe-vá-a wáñehjí-nú-i-yá-h
   body-sln. <SgM> -rpt-rem festival-do-fut-frs- <t>

í-llí-mútsi-kye. 2. Á-ró-náacá-vá-a
   self-son-<DuM>-objAn thm-frs-while-rpt-rem

díí-llí-ma di-tye wáñehjí nú-í-yó-lle-ke
   that-<SgF>-with that-<AnPl> festival-do-fut-frs- <SgF>-objAn
   that-<SgM> self sibling-<SgM>-only pregnant-caus-<t>

3. Aa-né-vá-a tsá(h) cááni-mu wáájacú-tú-ne.
   thm-<ø>-rpt-rem no father-pl know-neg-<n>

4. Á-ró-náacá-vá-a [dii-bye Pí-ívyé-ébe]
   thm-frs-while-rpt-rem that-<SgM> body-sln-<SgM>

hájkí-mú] téé-ne-ri ihjyúva-h íjcyá-hi.
   relative-pl that-<ø>-oblIn talk-sub be-<t>

5. Áá-ne-tú-vá-a tsúúca cááni-mutsi
   thm-<ø>-sou-rpt-rem already father-<DuM>

waajácú-jucóó-hi.
   know-now-<t>

6. Aa-né-vá-a i wáájacú-júcóó-ne íjcyá-abe
   thm-<ø>-rpt-rem self know-now-<event> be-<SgM>

cááni néé-híí: “Cána wa(h) o-ke nífpájí-ke
   father say-<t> please daughter 1-objAn chigoe-objAn

1. The Creator intended to honor his son and daughter with a festival.
2. Meanwhile, however, the daughter's very own brother got her pregnant, the daughter whom they intended to honor with a festival.
3. The parents did not know it. 4. However the Creator's relatives were talking about it.
5. Then the father and mother came to know about it.
6. The father, now knowing that, said, “Please daughter come see the chi-
Therefore she came covering her breasts with her hands. She said, “Where on you is it?” Therefore he said, “Here on my heel.” Thus now in order to inspect him she dropped her hands which covered her breasts. Then he saw that the nipples of her breasts were dark. With that he said, “Oh! Not having a husband, where did you get your child? ” Tell me. Which one has been with you?”

d-uhjé-vá-j”. 7Áá-né-lliihyé-vá-a you limp see come do voc thm < θ > motive-rpt rem
tsaa-lle [í í mujpáñeé-cú hyójtsi-vu come < SgF > self self breast-du hand-goal i wátá-jcó-ne-ma]. 8Aa-llé-vá-a self cover-mTr < event > with thm < SgF > rpt rem née-híi: “¿Mú-tsíh-dyu Lli(h) u-ke dií-byé?” say < t > WH < place > sou father you obj An that < SgM > 9Áá-né-lliihyé-vá-a ne-ébe: “[Í-chih-dyu thm < θ > motive-rpt rem say < SgM > this < place > sou tá booráyu-tu”. 10A-hdí-djücó-vá-a my heel-sou thm < like > focus-rpt rem [(dií-byé-ke i úvanú]-KI tee-ne [í that < SgF > obj An self consider-pur that < θ > self mujpáñeé-cú í hyójtsi-vu i wátá-jco-ró]-né breast-du self hand-goal self cover-mTr frs < θ > di-illé ácàdsí-jcaáyó-ne. 11Áá-ne-tú-vá-a that < SgF > drop sTr < θ > thm < θ > sou rpt rem tsúúca ajtyúmi-ibe [dií-llé mujpáñeé-cú níjcau already see < SgM > that < SgF > breasts-du nipple cúvéh-ré-juco néé]-néé. 12Áá-ne-má-vá-a dark-only focus say < θ > thm < θ > with rpt rem ne-ébe: “¡Új! 13Tájí-vá-lle-jíí ¿kiá-tú say < SgM > oh husband have < SgF > deny where sou tsémméne-ke ú ujcú-hi? 14O-ke d-ubálle. child obj An you get < t > I obj An you limp tell 15¿Caa-byé úú-ma ícy-a h íjcyá-hi?” which < SgM > you with be sub be < t >
she said, “Unknown, I do not know.

He comes at night.”

Therefore he said, “So then make a dye from genipap and then when he comes to you grab his face so we can know who he is.” Thus while she was making the dye from genipap, he came at night. She grabbed the one who arrived to her, having been touching the dye. After that he went to his room. Early in the morning having awakened he look at himself in the mir-
ror, at the genipap that had gotten dark. 

22. Therefore even though wiping himself, it did not go. 23. Being ashamed he did not want to come to eat. 24. Then the father knowing about that, said in his heart, “Why not somebody else and not his sister did my son get pregnant?”

25. The mother, waiting in vain for him, went to the field. 26. On leaving she said to her younger daughter: Give food to your brother as soon as he comes out. 27. It

íjchivyé-du”. 27 A-hdú-jucó-vá-a leave.-<like> thm.-<like>-focus-rpt-rem
dí-llé-wu téhmé-h íjcyá-ne. 28 Áá-náacá-vá-a that.-<SgF>-dim wait-sub be.<Ø> thm-while-rpt-rem
íjchivyé-júco-óbe. 29 Áá-be-ké-vá-a leave-now.-<SgM> thm.-<SgM>-objAn-rpt-rem
neé-lle: “í-ñe-vá-ne najme ú say.-<SgF> this.<Ø>-rpt-rec brother you
májcho-ó-hi”.
eteat.-<t>

30 Aa-né-vá-a i májcho-iñú-htsih-dyu thm.-<Ø>-rpt-rem self eat-do.go.-<place>-sou
pe-ebe [bájú pañé-vu]. 31 Aa-bé-vá-a go.-<SgM> jungle inside-goal thm.-<SgM>-rpt-rem
[múútsú-he-tu [tee-ne cáátu]] í leche.caspi.-<tree>-<sou that.-<Ø> genipap self
hyúmi-ri íjcyá-ne i níñú-ne déhtsi-dí-vú face-oblIn be.<Ø> self smear.-<event> bees-anim-goal
cáru-uvé-hi. 32 Áá-be-ké-vá-a lift.face-sIn-<t> thm.-<SgM>-objAn-rpt-rem
do-h íjcyá-ró-mé pá-raará-wúú-ji. eat-sub be-frs.-<AnPl> all-<spot>-dim-pl
Áá-ne-má-vá-a tsá-ábe thm.-<Ø>-with-rpt-rem come.-<SgM>
iíté-cunú-meí-va-rá-h [pá-hdu-re look-St/trp-come.do-frs.-<t> all-<like>-only
te-ne née]-néé. 34 Áá-ro-ne-má-vá-a that.-<Ø> say.<Ø> thm-frs.-<Ø>-with-rpt-rem

was thus that she was waiting. 28 While she was waiting he came out. 29 She said to him, “This brother is what you are to eat.”

30 Then, leaving from where he ate, he went into the jungle.
31 His face, onto which he had smeared the resin from the leche caspi tree, was uplifted to the bees.
32 Even though they ate it, his face was all pocked. 33 In that circumstance, he came and looked at himself, but it was all just the same. 34 In that circumstance

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he thought to himself, “How in the world can I make it disappear.”

Thinking like that, he put on the decorations they would have put on him for the festival. In that circumstance he said to his little sister, “Now I am going away from you.” Therefore she said, “Where brother are you going?” Therefore he said, “I am going to the sun.” Therefore she said, “I am going with you.” Therefore he said, “Then, sis, put on all 

íjtsámeí-żyúco-óbe: “¿Mú-hdu-tú-rá-ami ó think-now-<SgM> WH-<like>-sou-frs-wonder I

péé-tsá-méi-í-j?”
go-caus-r/p-fut-voc

35 Eh-dú-vá-a i íjtsámeí-yó-ne that-<like>-rpt-rem self think-frs-<event>

[díí-bye-ké-vá-a [[[tee-ne wañéhjí]
that-<SgM>-objAn-rpt-rem that-<ø> festival
pícyo-h ícyá-ro]-né-vú pícya-meí-íbyte.
put-sub be-frs-<ø>-goal put-r/p-<SgM>

36 Áá-ne-má-vá-a nee-be dii-lle
thm-<ø>-with-rpt-rem say-<SgM> that-<SgF>

í ŋáá-llé-wúu-ke: “Í-cyooca o
self sibling-<SgF>-dim-objAn this-when I

pé-jucóó-h ú-hdi-tyu”. Áá-né-lliihyé-vá-a
go-now-<t> you-anim-sou thm-<ø>-motive-rpt-rem

neé-lle: “qá-ca kiá-vú najme u
say-<SgF> y/n-doubt where-goal brother you

péé-hií?” Áá-né-lliihyé-vá-a neé-be:
go-<t> thm-<ø>-motive-rpt-rem say-<SgM>

“O pé-jucóó-h [áádí élle]-vu [níhba
I go-now-<t> that.SgM place-goal sun
élle]-vu”. Áá-né-lliihyé-vá-a neé-lle:
place-goal thm-<ø>-motive-rpt-rem say-<SgF>
She put them on and he said to her, “You being like that, when we go, close your eyes tight. Do not look.” Therefore she said, “OK.” Then, already having put her on his shoulder he flew up. However she already became scared. She screamed, “I am going to fall bud, I am going to fall.” Saying that she became un unstuck and left to go below being a nightingale now. After that he flew...
up by himself. While he was among the clouds, his father's relatives, who were getting jungle salt, on seeing him said, "He is going now because he is ashamed for having caused his sister to be pregnant." Father considering him said, "You will be a father of animals. You go with the shame of having caused your sister to be pregnant like animals who cause their sisters to be pregnant." That is what he said about his going.

47 [Áá-né booné-vá-a] ii-yé-juco di-byé
thm-<Ø> after-rpt-rem self-only-focus that-<SgM>
wáamené-ne. 48 Aa-bé-vá-a
fly.up-<Ø> thm-<SgM>-rpt-rem
[[tsí-hullé-juco] [ojtsó pañé] íjcyá-náa] [cááni
other-<yonder>-focus clouds inside be-while father
hájí-mú] [[úmé bajú-ne-ri] íjcy-a-me] [i
relative-pl jungle.salt jungle-pl-oblIn be-<AnPl> self
ájtyúmí-ne] néé-híí: "Í ñáá-íle-ké-vá-a
see-<event> say-<Ø> self sibling-<SgF>-objAn-rpt-rem
i éévá-tsó-ne-ri i ñúcójpí-vé-ne
self pregnant-caus-<event>-oblIn self shame-sln-<event>
pé-júco-óbe". 49a Áá-be-ké-vá-a i
go-now-<SgM> thm-<SgM>-objAn-rpt-rem self
úvanú-ne nee-be cáánií: "Néhi
consider-<event> say-<SgM> father so
[iyá-mé-j cááni] u íjcyá-i-íbye,
animal-<AnPl>-x father you be-fut-<SgM>
49b [[iyá-mé múú-ne í ñáá-íle-ke
animal-<AnPl> WH-<Ø> self sibling-<SgF>-objAn
ééva-tsó]-dú [dí-ñáá-íle-ke u
pregnant-caus-<like> your-sibling-<SgF>-objAn you
ééva-tsó-né] núcójpí]-ri u péé-beé”.
pregnant-caus-<event> shame-oblIn you go-<SgM>
50 Eh-dú-vá-a nee-be di-byé
that-<like>-rpt-rem say-<SgM> that-<SgM>
péé-ne-tu.
go-<Ø>-sou

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After he (the son) had left, he (the father) said to his daughter, "Carry water for the festival in which I would have honored you so I can make the starch drink so that we can drink it with my relatives." It was thus that she carried water. Then when the pots were full of water father said, "Now get water in this basket." It was thus that she went. Arriving at the river she got water in the basket in vain. However it kept on running out. While she was at that,
the parents bathed in starch in order to run away from her. 58 She did not know that they were going away from her. 59 Then she came from the port and arrived to an empty house. 60 She said, “Where could mom and the others be going?” 61 Her pets were these: ants, snakes, paucars (birds), agouti, (animal), that many. 62 One of them she asked, the agouti, “My pet, I wonder where my parents could have gone?” 63 Therefore he said: “Here

úmíva-ki]. 58 Aa-né-vá-a tsá(h) di-lle
flee-pur thm-<ø>-rpt-rem no that-<SgF>

wáájácu-tú [díí-lle-dí-tyú] di-tye
know-neg that-<SgF>-anim-sou that-<AnPl>

pé-jucó]-ne. 59 Aa-né-vá-a [mújóju-tu
go-now-<ø> thm-<ø>-rpt-rem port-sou

come-<SgF> arrive.here-<t> empty-<shelter>-goal-only-focus

60 Aa-llé-vá-a néé-hí: “¿Kiá-vú-amí
thm-<SgF>-rpt-rem say-<t> where-goal-wonder

í-ñe waháró-mú pe-é-j?”
this-<ø> mother-pl go-fut-voc

61 Aa-né-vá-a [díí-llé jéé-mú]
thm-<ø>-rpt-rem that-<SgF> pet-pl

í-lluú-me: úwaañí-mu, úwacyoo, újcuu,
that-thus-<AnPl> type.ant-pl snake paucar

úúcume, úlíyo, é-du-mé-vá-a
agouti (animal) that-<like>-<AnPl>-rpt-rem

[díí-llé jéé-mu]. 62 Áá-me-dí-tyu-vá-a
that-<SgF> pet-pl that-<AnPl>-anim-sou-rpt-rem
dílo-lle úúcúme-ke: “Tá-jye-j, ta-jyéé-u-j,
ask-<SgF> agouti-objAn my-pet-voc my-pet-sg-voc

¿kiá-vú-amí-ñe waháró-mú peé-j?”
where-goal-wonder-rec mother-pl go-voc

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63 Áa-né-lliihyé-vá-a ne-ébe: “íllej, thm-<ø>-motive-rpt-rem say-<SgM> here plate underneath that-<like>-rpt-rem né-ébe-re dsííne-iñu-h íjcyá-h [úllébá say-<SgM>-only run-do.go-sub be-<t> plate lliíñe-vu].” 64 Eh-dú-vá-a Áa-náacá-vá-a íí underneath-goal thm-while-rpt-rem self tyáá-llé-coba íñiiñe-rí i grandparent-<SgF>-aug place.near-oblIn self hwáábyáá-ri. 66 Áa-ille-ké-vá-a hammock-oblIn thm-<SgF>-objAn-rpt-rem neé-lle: “Taá-ille-j, í-ñe say-<SgF> grandparent-<SgF>-voc where-goal-wonder-rec waháró-mú peé-j?” mother-pl go-voc

67 Áa-né-lliihyé-vá-a neé-lle: “Cáhawáá thm-<ø>-motive-rpt-rem say-<SgF> suggest bo(h) í-ñe pá-ne-ere [díí-tsííju bájtso-háñe] well this-<ø> all-<ø>-only your-mother planting-pl. pihjyúcú o óóve-ki”. 68 A-hdú-jucó-vá-a gather I fill.up-pur thm-<like>-focus-rpt-rem di-lle pihjycú-né pá-ne-ere [tsííju that-<SgF> gather-<Ø> all-<Ø>-only mother bájtso-háñe]. 69 Aa-né-vá-a óóve-lle. planting-pl. thm-<Ø>-rpt-rem fill.up-<SgF>

70 [Áa-né níjcáu]-tú-vá-a neé-lle: thm-<Ø> end-sou-rpt-rem say-<SgF> underneath the plate.” 64 Saying that he ran underneath the plate. 65 Meanwhile her big grandma was nearby in her hammock. 66 She said to her grandma: “Grandma, where in the world did my parents go?”

67 Therefore she said: “Well, I suggest you harvest your mother’s fields so I can fill up.” 68 Thus it was that she gathered all of her mother’s crop. 69 Then she filled up. 70 After finishing that she said: “OK now,
let's go after your parents.”

Thus saying, she dug up some ashes from her fireplace. While they were going into that hole she returned a little distance from her grandmother.

Thus it was on that trail that she went with her pets. She arrived to where the bird (chicua) was. She was with him for a long time. He said to her in order to go: “You stay here. I will go hunt at my fields. If the people beat me up, you will know right from the yellowing of my medicine plant.

Áju(h), májo [díí-tsííjú-mu déju]-tu”.

Borra texts

Let's go after your parents.

Áhejú-ri-vá-a

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that they have already beat me up.” 79 Thus it was that she was waiting, anticipating his return. 80 While she was waiting suddenly his medicine plant became yellow. 81 Then seeing that she said: “The people must have already beaten up the chicua bird. 82 Because his medicine plant has already become yellow. 83 Why o why! With whom will I be…?” 84 Having said that she cried very much. 85 At that point as before she said: “Why o why! Where will I go now that the chicua bird has died?”

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Saying that she went on the trail he had said the parents had gone on. 87 She arrived to where the hunchback's wife was. 88 She asked her: “Grandma, on which trail did my parents go?” Therefore she informed: “On this trail. However it is already dark. Sleep here with me. Go tomorrow.” Thus it was that she slept with her. 89 She told her: “Going from here you will arrive to ‘this trail, that trail’
Here is one that eats us. Arriving to her, ask her: 'Grandma, on which trail did my parents go?' Therefore she will tell you, 'this trail'. Then go quickly on the trail that she tells you. After that, if you delay going on the trail on which she told you to go, she will eat you.' That's what she told her. Thus it was that having gone along she arrived to the 'this trail, that trail'. She asked her: "On which trail did my
parents go?”

Therefore she told her: “This trail.”

It was on that trail that she went.

After that she (the old woman) said: “This trail, that trail. This trail, that trail.”

Right when she said that, she (the girl) ran.

She kept going and arrived to where Uminuri was chopping in his field (in which the underbrush had previously been cut).

Upon seeing her: “Where are you going?” saying, leaving what he was getting.

Áá-lle-ké-vá-a díllo-lle

thm-<SgF>-objAn-rpt-rem ask-<SgF>

“Taá-lle-j, ¿kéé-ju-rí-amí-i

Grandparent-<SgF>-voc which-<channel>-oblln-wonder-rem

waháró-mú peé-j?”

mother-pl go-voc

Áá-né-lliihyé-vá-a úúbálle-lle: “Í-jyuú”.

thm-<ø>-motive-rpt-rem tell-<SgF> this-<channel>

peé-neé.

[Áá-né booné]-vá-a neé-lle:

go-<Ø> thm-<Ø> after-rpt-rem say-<SgF>

“iÍ-jyu hé-ju, í-jyu

this-<channel> that-<channel> this-<channel>

hé-juł”

Á-ró-náacá-jucó-vá-a
di-lle
dsífné-jucóó-ne.

Áa-llé-vá-a

that-<SgF> run-now-<Ø> thm-<SgF>-rpt-rem

di-lle

pé-h íjcyà-lle úúje-té-h [Úmínurí]
go-sub be-<SgF> arrive-go-do-<t> (name)

íñajá-jí flo-h íjcyá]-ábe-dí-vu.

his-cut.underbrush-<disk> chop-sub be-<SgM>-anim-goal

[Áá-lle-ké-vá-a i ájtyúmí-ne]

thm-<SgF>-objAn-rpt-rem self see-<event>

[[“¿Kiá-vú u peé-hi?” né-ébe-re]

where-goal you go-<t> say-<SgM>-only

i újcu-íñú-ne] ékeevé-hi.

self get-do-go-<event> grab-<t>
Having put her into his salt pack, he tied it over where she was. Along with her, he came. He came and said to his wife: “Bake these brains with my salt so I can eat them together.” Therefore the wife answered: “OK.” At that point he said: “Sister, I’ll go get firewood.” He went now. After that she said: “For certain! Whom is this Uminuri bringing saying, ‘Bake my salt and brains so I can eat them?’” Saying that and untangling he grabbed her.
the salt packet she stared at that grin.  
Thereupon she said, “What are you grinning about?” He keeps bringing people in order to eat them. And what are you doing?” Thus saying and untying that, she said: “You may go.

Then, after she had left, she exchanged her with a squash.“

| Link || S V “X S V Aux | Link Pur | DO = [s-V] (an active participle) |  
|-------|-----------------|---------|---------------------------------|  
|        | 116 | Link || S V “X S V Aux | [DO s-VI] |  
|        | 117 | Link Pur | DO V Aux | (where Pur = [DO s-V]) |  
|        | 118 | Time Instr S | Sim | Cir V “Modal s-V. (where Cir = [Ø V-s]; Cir = [Ø s-V]) |  
|        | 119 | Interj | S V Aux | S = [Pur, DO, V]-head; Pur = [Ø, s-V] |  
|        | 120 | Instr S V | Sim | S V Instr |  
|        | 122 | Link TempP V-s Sou | (where Time = [Cir PostPos]; Cir = [S} |  

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that circumstance she tied it up like he had, real tight.  
However while she was doing that he came. He came and built a fire. Then he put his salt packet on top of the fire. After it heated up, it popped open with a bang. Therefore he said: “Wow, why I wonder did my salt and brains get ruined?” Saying that he went and broke off a piece of cassava. With that (cassava), dunking it (in hot sauce), he ate it, but it was very bit-

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Then being frustrated he said: “Sister, I bet you sent away what I caught on my hunt.”

After that he said: “What is it that I eat?”

Whereupon again he said: “Instead should I eat you?”

Thussaying he thitherwith astick resulting in drawing blood.

Then getting (her dead body), he ate what he had stirred in the pot.

After that he returned from getting his di-

paapá-wu. Á-ró-ne-má-vá-a ne-ébe: bitter-dim thm-frs- <ø> -with-rpt-rem say- <SgM>

“Muú-lle-j, ú-ubá-hja-né [tá-lliiiñája-j age.mate-<SgF>-<voc you-prob-nwit-rec my hunt-x
táává] ú wallóó-hi”. [Áá-né booné]-vá-a catch you sent-<t> thm-<ø> after-rpt-rem ne-ébe: “¿íí-ne-ré-juco o májcho-ró-ne?” say- <SgM> what-<ø>-only-focus I eat-frs-<Ø>

Á-tsih-dyú-vá-a idyé ne-ébe: thm-<place>-sou-rpt-rem before say- <SgM>

“¿Mityá uu-ké-ré o dóó-h íjcy-a-lle? instead you-objAn-only I eat-sub be-<SgF>

Á-vee-ná [tá-lliiiñája-j táává] ú wallóó-hi?” why-<ø> my-hunt-x catch you send-<t>

E-hdú-vá-a né-ébe-re díí-lle-ke that-<like>-rpt-rem say- <SgM>-only that-<SgF>-objAn

íllaá-yó-h úmé-hé-hi-yi [apáhachíí hit-sTr-<t> tree-<tree>-<stick>-oblIn extent
tú-jpacayó]-ré-juco. Aa-né-vá-a blood-<liquid>-only-focus thm-<ø>-rpt-rem i újcú-ne [llíyllo-ri i bóri-jcyó]-ne self get-<event> pot-oblIn self stir-mTr-<ø>
do-óbe.
eat-<SgM>

[Áá-né booné-tu]-vá-a í wahdá-hí thm-<ø> after-sou-rpt-rem self divining-<stick>
újcú-je-ébe téé-hi-yi i wáájácu-KI get-do.come- <SgM> that-<stick>-oblIn self know-pur

[ø, s-V]); -có is an allomorph of -acó ‘sTr’ 131  
131  Cir V-s “Voc S DO S V” (where DO = [[s-V] @ N])  
132  TempP V-s “QDO || S V”  
133  a Cir Adv V-s “QDO || S V Aux”  
133 b Reason DO S V  
134  <Sim>, > Cir, DO V In- 
136  str Result; Cir, = [ø, s-V]; Result = [AdvDeg N]  
135  <DO>, > Cir, In- 
136  str DO, V-s (where Cir, = [ø, s-V] DO, = [Loc s-V]) 
136  TempP DO V-s Pur, (where Pur, = [s-V DO]; DO = [QGoal
[kiá-vú di-lle péé]-néé.  137 Aa-né-vá-a
where-goal that-<SgF> go-<ø> thm-<ø>-rpt-rem
tsúúca i wáájácú-ne úrá-ávye-ebé
already self know-<event> follow-sln-<SgM>
díí-lle-ke.  138 í piijyú-wa-vá-a
that-<SgF>-objAn self hook-<slab>-rpt-rem
[di-bye wááo]-ne [díí-llé niíwá-co]-tu
that-<SgM> throw-<ø> that-<SgF> head-<hair>-sou
cápa-avyé-hi.  139 Aa-wá-vá-a i újcú-ne
hook-sln-<t> thm-<slab>-rpt-rem self get-<event>
wájcá-tu pícyoó-lle.  140 Aa-né-vá-a
branch-sou put-<SgF> thm-<ø>-rpt-rem
tsáá-ro-obe pevé- tsih-vu wajtsí-hi.
come-frs-<SgM> empty-<place>-goal arrive.here-<t>

141 Á- tsih-dú-vá-a pé-h íjcyá-lle
thm-<place>-sou-rpt-rem go-sub be-<SgF>
úúje-té-h móóa-vu.  142 Áá-illé-ké-vá-a
arrive.go.do-<t> big.river-goal thm-<SgF>-objAn-rpt-rem
tsóviráco-mútsí pajtyé-tsó-hi.  143 [Í
alligator-<DuM> pass-caus-<t> self
piijyú-wá dohjí]-ri-vá-a pajtyé-tso-mútsi.
hook-<slab> line-oblIn-rpt-rem pass-caus-<DuM>
144 Áá-náácá-vá-a ee-ne díí-llé-ke
thm-while-rpt-rem that-<ø> that-<SgF>-objAn
úrá-ávye-h íjcyá-abe wajtsí-jucóó-h
follow-sln-sub be-<SgM> arrive.here-now-<t>

vining stick in order to know by means of that where she went.  137 Now
knowing that, he followed her.  138 The
hook which he threw hooked her hair.  139 Grabbing
that hook she put it on a branch.  140 He
came and ar-rived in vain to an empty place.
141 From
there she going and going ar-rived at a big
river.  142 Two alligators
caused her to get to the other
side.  143 They
cause her to pass over on
their fish line.  144 Meanwhile
the one that

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was following her arrived there. He said, “Take me across. I am aware--helped my catch across.”

Therefore they said: “No, we don’t see. How can we pass you over? Therefore he said: “Even so, like you did before, cause me to get across, so I can follow my catch.”

They said and tied the hook to a very old line. With that they said: “Come on then, grab hold here so that we can pass you across.” Thus it was that the line to which the two

té-tsih-vu.  Aa-bé-vá-a
that-<place>-goal thm-<SgM>-rpt-rem
néé-híí: “O-ke mé pajtyé-tso;
say-<t> I-objAn SAP pass-caus
145 a ámuhtsí-hjya-né ta-jtyáá vá mé pajtyé-tsó-hí”.
youDuM-aware my-catch SAP pass-caus-<t>

Muhtsí ma ájtyúmÍ-ne-jíí: Áá-né-liihiyé-vá-a
we.ex SAP see-<Ø>-contra.pos WH-<like>
mé pajtyé-tso-ó-hí?”
SAP pass-caus-fut-<t> thm-<Ø>-motive-rpt-rem
ne-ébe: “Ané-hde ih-dyu o-ke mé
say-<SgM> give.in-before this-<like> I-objAn SAP
pajtyé-tso [o úrá-ávye-KI ta-jtyááva].”
pass-caus I follow-sln-pur my-catch
148 [“Juújú”, née-muts[i]-yé-jucó-vá-a
ok say-<DuM> only-focus-rpt-rem
íhdé-é-u-úvu-tu í pliyú-wá
earlier-per-<sphere>-max-sou self hook-<slab>
dóhji-nú-ne. Áá-ne-má-vá-a
tie-do-<Ø> thm-<Ø>-with-rpt-rem
nee-mútsi: “Cána bo(h) í-chih-dyu
say-<DuM> suggest well this-<place>-sou
d-eké-évé u-ke muhtsí me
youlmp-grab-sln you-objAn we.DuM SAP
pajtyé-tso-ki”. A-hdú-jucó-vá-a
pass-caus-pur thm-<like>-focus-rpt-rem

“DO s-V  Reason V-s “ProSent S s-V. (The -ne of the final verb nominalizes the verb. This may be a case of <Ø> but without -juco.)
QSim S s-V  Reason V-s “Link Sim DO s-V Pur_d
(where Pur_d = [S V DO])
S Site DO V; S = [[“ProSent” V]-head]
Cir V-s “Modal Site s-V Pur_d” (where Pur_d = [DO S s-V])

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hooked the one that grabbed on, broke in the middle of the big river. 151 Immediately a crocodile ate him.

152 From that place going and going she arrived again to a big river. 153 She said to her pets: “My pet my pets, empty this big river so it dries up and we can cross over. 154 Thus it was that the wee ones were drinking, but in vain. 155 Then while she was there, an alligator came. 156 She said to him: “Grandpa, take me over to

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the other side. Therefore he said: “OK, sit down here on my nose.” Thus he took her across.

From there she went to her mother, but the mother’s two sons ate up that one who arrived. After that her mother took that dead woman’s child. When he grew up he also killed them.

ne-ébe: “Juúju, í-chih-vu d-acú-úvé say-<SgM> ok this-<place>-goal you IMP-SIT DOWN SN
[tá-tyújú-hó hallú-vu].” A-hdú-jucó-vá-a my-nose-sg top-goal thm-<like>-<focus>-RPT-REM
péé-lle-ke di-bye pájtye-tsó-ne. go-<SgF>-objAn that-<SgM> pass-caus-<Ø>

[tsííjú mu-dí-vú úúje-té-ró]-lle-ke [tsííjú mother-pl-anim-goal arrive-go.do-frs-<SgF>-objAn mother
hájchi-mútsí] dó-pejtsó-hi. Áá-ne-tú-vá-a son-<DuM> eat-contact-<t> thm-<Ø>-<SOU>-RPT-REM
[díí-lle-úvú-j tsííméne]-ke tsííju ujcú-hi. that-<SgF>-max-x child-objAn mother get-<t>

Áá-bé-wuú-vá-a i kyéémé-ne thm-<SgM>-dim-RPT-REM self grow.up-<event>
té-hdú-re díi-tyétsi-kye dsújvé-tsó-hi. that-<like>-only that-<DuM>-objAn die-caus-<t>

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Ajcyómé Úmɨhe

They Cultivate the Field

1Father: Wáha-j, majo [úmɨhe ma
daughter-voc let's.go.Du field SAP
ájcyo-té-ki]. 2Daughter: Juúju. 3Father:
cultivate-go.do-pur ok

“¿Múha tsáá-hií?” 4Daughter: Mehéro
who come-<t> aunt
tsá-jucóó-hi. 5Méhe-j, ¿á u tsá-jucóó-hi?
come-now-<t> aunty-voc y/n you come-focus-<t>
6Aunt: Éée, o tsá-jucóó-hi. 7Majchó-va-j.
yes I come-focus-<t> eatImp-come.do-voc

8Daughter: Juújuj. 9Áyu(h) méhe-j,
ok fine aunty-voc

éh-du-né-re. 10Ó oové-jucóó-hí. 11Ayúwa
that-<like>-<ø>-only I full-now-<t> ready
metsu úmihé-vu. 12Father: Llíhi-j, muha me
let's.go.Pl field-goal son-voc we.ex SAP
pé-jucóó-hi. 13Son: Juújuj.” 14¿Mú-cooca
go-now-<t> ok WH-when

ámuha mé óomi-í-hí? 15Father: Cuúve.
you.Pl SAP do.come-fut-<t> dark
16Son: Muú-lle-j, [u tsá-cooca] cúdsɨ-tu
age.mate-<SgF>-voc you come-when pineapples-sou

1Father: Daughter,
let's go cultivate
the field. 2Daughter:
OK. 3Father: Who is coming?
4Daughter: My aunt is coming.
5Aunt, are you
coming? 6Aunt:
Yes I am coming.
7Come eat! 8Daughter:
OK. 9OK aunty,
that is enough. 10I'm full now.
11OK let's go
to the field.
12Father: Son,
we are going
now. 13Son:
OK. 14When
will you return?
15Father: Late.
16Son: Sister, when you
come, bring
some pineapple so I can eat
it.  Also bring manioc for me to eat.  I will go hunting so we can eat meat.  Father: Let’s go by trail.  Daughter: No, the trail is bad.  Let’s go by canoe.  Father: OK let’s go.  Daughter, carry the basket.

Narrator: Then they went to cultivate the field.  Then when they arrived at the field, one of the women said, “Is this where I cultivate?”

Father: Yes, cultivate that place.  Aunt or Daughter: I will cultivate here.

Daughter:

tsíva-co [o llééne-ki].  Té-hdu-re baajúrí bringImp-impl I eat-pur that-<like>-only manioc
tsíva-co [o májcho-ki].  Ó llííñáá-te-é-h bringImp-impl I eat-pur I hunt-go.do-fut-<t>
me dóó-ki.”  Father: Métsu juuvá-rí-ye.”
SAP eat(meat)-pur let’s go trail-oblIn-only
Daughter: Tsáhaá, néhní(h) juúva.  Métsu no bad trail let’s go
mííne-rí-ye me péé-kií.  Father: Juúju, métsu. canoe-oblIn-only SAP go-pur ok let’s go
Wáha-j, úverújtsí píúchu.
daughter-voc basket carryImp

Narrator: Aa-né-vá-a péé-me [úmíhe thm-<ø>-rpt-rem go-<AnPl> field
i ájcyo-ki].  Aa-mé-vá-a [té-pallí-vú self cultivate-pur thm-<AnPl>-rpt-rem that-<disk>-goal
úje-té-náa] tsáá-pille néé-hí: “¿A í-chi arrive-go.do-while one-<SgF> say-<t> y/n this-<place>
ó ájcyo-ó-hí?”  Father: Éée, é-tsíí
cultivate-fut-<t> yes that-<place>
d-ájcyo.
Aunt or Daughter: Í-chi ó youImp-cultivate this-<place> I
ájcyo-ó-hí.
Daughter: Méhe-j, úverújtsí-vú cultivate-fut-<t>

aunty-voc basket-goal
Aunty, give me a basket so I can get manioc.  Father: OK, that's all we will cultivate now.  Daughter: I'm going to get pineapple so we can take them.  Father: Wait and we will make hills tomorrow so we can plant peanuts.  OK, let's go to our house.  Already rain is coming.  It is getting dark.  Daughter, bring the basket so we can go.  Wait so I can eat a caimito fruit.  Let's go.  Rain is coming.  Then they went to their house.

V])  ProSent Adv Sim S s-V  DO S V Pur\textsubscript{d} (where Pur\textsubscript{d} = [s-V])

31 ProSent Time s-V Pur\textsubscript{s} (where Pur\textsubscript{s} = [DO s-V])  ProSent V Goal

33 Adv S V  PredCmpl || S  VOC DO V Pur\textsubscript{d} (where Pur\textsubscript{d} = [s-V])

36 ProSent DO S V  V  S V (Note contrast: tsá-jucóoh versus tsááhií in 33.)
The chief said to them, “Are you coming now?”

Group: Yes we are coming now.

Father: Son, we brought a pineapple for you to eat.

Son: OK.

Wait I'll eat it. I shot a partridge and a spotted cavy for us to eat.

Sis, did you bring manioc?

Yes, wait we eat it. Father: Daughter have you already cooked the manioc?

Sister: Yes, hurry come eat. Uncle, hurry come eat.

Uncle: OK. Give me a manioc to eat. Uncle: Also give me a piece
Ajcyómé Úmíhe

[o májcho-ki].  

51 Té-hdu-re [tojpá-u
I eat-pur that-<like>-only partridge-sg
eh-ne]-vu o-ke d-aacu [baajúri-ú-vú
that-<ø>-goal I-objAn you imply give manioc-<sphere>-goal
o lléhdo-ki].  

52 Daughter: Juúju.  
53 Uncle:
I eat.together-pur ok
Áyu(h), é-hdu-né-re.  

54 Te-hdú-juco.
ready that-<like>-<ø>-only that-<like>-focus
55 Uncle and Aunt: Muhtsi me pé-jucóó-hi.  

we.DuM SAP go-now-<t>
56 Chief: Juújuj, wá-i mé cuwá-te-j.  

57 Oví ok may-PT SAP sleep-go.do.voc wait
péjco-re mé caajá-hi.  

58 Uncle and Aunt: night-only SAP make.hills-<t>
Juújuj, wá-i me íjcyá.  

ok may-PT SAP is

59 Narrator: Aa-né-vá-a tsúúca  
thm-<ø>-rpt-rem already
pé-jucóó-me ih jyá-vu.  
go.now-<AnPl> self house-goal

59 Link Adv V Goal

51 Sim Goal/theme DO_recip s-V Pur₃ (where Pur₃ = [Th S V])  
52 ProSent  
53 ProSent PredCmpl (BE)  
54 PredCmpl (BE)  
55 S s-V  
56 ProSent Modal s-V  
57 ProSent Time s-V  
58 ProSent Modal s-V

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Íllu Múúne Méwákímyeí

This Is How We Work

1. We first wash real dirty clothes in plain water without any soap.
2. After that, finally we put them through the next thing (with water that is soapy).
3. We repeat that, putting them through three batches of water.
4. We put the white clothes in one place; by contrast we (put) the colored clothes in another place.
5. We wash the white ones at one time; likewise, and the colored ones at another time.

<table>
<thead>
<tr>
<th>English</th>
<th>Bora</th>
</tr>
</thead>
</table>
| Wash real dirty clothes in plain water without any soap. | Wash-<t>
| Finally we put them through the next thing (with water that is soapy). | Wash-<t>
| We repeat that, putting them through three batches of water. | Wash-<t>
| We put the white clothes in one place; by contrast we (put) the colored clothes in another place. | Wash-<t>
| We wash the white ones at one time; likewise, and the colored ones at another time. | Wash-<t>
We squeeze them, bringing them, then hang them.  
We put all the one-piece clothes onto hangers.  
By contrast, the other kinds of clothes we hang on the clothes line.  
We pin them to a line with clothes-pins.  
When they are dry, getting them, we fold them.  
When we fold them, we put the same kind of clothes in one place.  
We put the torn clothes by themselves.  
When we fold the blankets we do not put the sides to the inside.

7a Link DO | DO s-V.  
7b Sou s-V Sou; The use of -tu ‘source’ for clothes-pins is strange; it may be because the clothes hang from them as well as from the clothesline.  
8 Time CirS s-V (where Time = [S V] and CirS = [s-V]  
9 Time Goal DO s-V (where Time = [DO s-V])  
10 Link DOpartitive Adv DO s-V (The DO may be appositive to DOpartitive; the meaning would be “from the clothes, those that are torn.”)  
11 Link CirS Neg s-V DO Goal (where CirS = [DO s-V])
Now, when we set the table, we first put on the dishes. After that, we put the cups on the right side. Also we put a fork on the left side. By contrast, we put a knife and a spoon on the right side. Then we put the food in the middle. Then, after the meal, we clear the dishes. Then after that we gather the crumbs left from the food and put it in the garbage.

Áá-ne-tu [bohtá-mú méétsá-vu me thm.-<ø>-sou dish-pl table-goal SAP pícyóó-cooca] mé pícyóó-h tujkénú bohtá-mu. put-when SAP put-<t> first dish-pl

[Áá-né booné-tú] mé pícyóó-h cané-cóó-né thm.-<ø> after-sou SAP put-<t> cup.-<cup>-pl

[ímiá nejcú-vu]. Té-hdu-re mé pícyóó-h right side-goal that.-<like>-only SAP put-<t>

deíjú-wa-cóóhá [nání ňejcú-vu]. Áá-ne-tu spoon.-<slab>-<fork> left side-goal thm.-<ø>-sou

[ímiá nejcú-vú] mé pícyóó-h niítsú-wá-wuu, right side-goal SAP put-<t> cut.-<slab>-dim
deíjyu-waa éh-du-ne. Aa-ne pí́né-vu spoon.-<slab> that.-<like>-<ø> thm.-<ø> middle-goal


[[[tee-ne majchó] waahyé-né] cóevá-né me that.-<ø> food pieces-pl be.leftover-<ø> SAP píhjyú-cú-ne] mé pícyóó-h [ujpá pañé-vu]. gather-mTr-<event> SAP put-<t> garbage inside-goal
we wipe it thoroughly.

Then when we wash the dishes we first put hot water in the pan. 21 We pour in some cold water to cool it off a bit. 22 In that water we finally wash. 23 First we wash all the good things. 24 Then after moving those into another pan we wash the cooking pots, however many dirty ones there are. 25 Nobody washes the good ones in dirty water. 26 Then finally
we put them away after we have finished putting them all into another pan with boiling water and scalded them. 27 Then we put them away, big dishes in one place and the little dishes in another. 28 The cups we put in one place. 29 Also we put the spoons, knives, forks and whatever else there is, each in it's place.

Then, when we sweep, we sweep thoroughly, even the crumbs in

me ímivyé-dú] [[tsí́f-jí́ pañé-vú] me
SAP finish <like> other <disk> inside-goal SAP
pícyóó-ne] [[wááné-jpacyó-tu tee-ne ma
put <event> boil <liquid> -sou that <ø> SAP
áñú-ne] me íjchí-vye-tsó-dú] botsíí
scald <event> SAP leave-sln-caus <like> finally
me páácyu-ne mé pícyóó-hi. 27 Aa-ne
SAP wipe <ø> SAP put <t> thm <ø>
tsá-tsíh-vú tsá-né-e-ne mé pícyóó-h,
one <place> -goal one <ø> -per <ø> SAP put <t>
bohtá-mú: tsá-tsíh-vú í mityá-jí-hji,
dish-pl one <place> -goal self much <disk> -pl
té-hdú-re í ayá-jí-hjí tsá-tsíh-vu.
that <like> -only self small <disk> -pl one <place> -goal
28 Cané-cóó-né tsá-tsíh-vú mé pícyóó-hi.
cup <cup> -pl one <place> -goal SAP put <t>
29 Té-hdú-re [deíjyu-wáá-ne, niítsú-wá-wúú-ne,
that <like> -only spoon <slab> -pl cut <slab> -dim-pl
deíjyú-wá-coohá-ñe, [[ií-ná tsá-né-e-ne]
spoon <slab> - <fork> -pl what <ø> one <ø> -per <ø>
[ijcyá]-ne] tsá-tsí-hjí-vu mé pícyóó-hi.
be <ø> one <place> -pl-goal SAP put <t>
30 Áá-ne-tu me llíjýáá-cooca múú-ne
thm <ø > - sou SAP sweep-when WH-pl
mé llíjýáá-h píru-ne-úvú [wááhye-ne
SAP sweep <t> complete-adv-max crumb-pl
It is not clear what context this text is referring to, as it appears to be a mix of Frisian and English. The text seems to be discussing the proper way to interact with children, emphasizing the importance of watching them closely and maintaining a clean environment. The text also mentions the importance of washing fruits before eating them. The use of Frisian adverbial structures is evident throughout the text.
nally we divide it.  

Finally we peel it after we have divided it.  

Then after putting it in a dish we finally put it on the table.

Whenever we are going to make something, we first

39 Áá-ne botsí mé water-<liquid>-obl ln thm-<ø> finally SAP
pítséu-hcú-hí.  40 Aa-ne botsí mé ihtú-h me divide-sTr-<t> thm-<ø> finally SAP peel-<t> SAP
pítséu-hcú-ne-ré-juco.  41 [Aa-ne bohtá-jí divide-sTr-<ø>-only-focus thm-<ø> dish-<disk>
pañé-vú me pícyoo]-ne botsíí mé pícyóó-h inside-goal SAP put-<ø> finally SAP put-<t>
méétsá-vúú.
table-goal.

42 Áá-ne-tu \[[oona me ihtu]-ne me thm-<ø>-sou taro SAP peel-<ø> SAP
wáwá-jcó-ne me níjtyu]-ne me túú-hi. divide-sTr-<event> SAP wash-<ø> SAP cook-<t>

43 Aa-ne \[[[te-ne báábá-cooca] me píñaò]-né thm-<ø> that-<ø> done-when SAP remove-<ø>
té-jpacyo me wáágóó-ne] [[té-né-hjí that-<liquid> SAP throw.out-<event> that-<ø>-pl
tálliýjcyo-ri pállijyu me tállíyi-jcyó]-né grinder-obl ln all-<powder> SAP grind-mTr-<ø>
[bohtá-jí pañé-vú] me pícyoo]-ne botsíí dish-<disk> inside-goal SAP put-<ø> finally
méétsá-vu mé pícyóó-hi.  44 Pá-ne-ere table-goal SAP put-<t> all-<ø>-only
tsí-emé-né me méénú-í-çyoca tujkénú other-similar-<ø> SAP make-fut-when first

this is surprising information.  

41 Link Cirₕ, Adv s-V Goal (where Cirₕ = [Goal s-V]; this could also be regarded as the direct object of the main clause)

42 Link Cir₃, Cir₂, Cir₁ s-V (where Cir₁ = [DO, s-V]; Cir₂ = [ø, s-V], Cir₃ = [ø, s-V])

43 Link Time Cir₁, Cir₂, Cir₃, Cir₄ Adv Goal V (where Time = [SV]; Cir₁ = [ø, s-V]; Cir₂ = [DO s-V]; Cir₃ = [DO, DO Result s-V]; Cir₄ = [Goal ø, s-V])

44 Cirₙ, Adv s-V (where Cirₙ = [DO
Also after peeling the manioc we wash it. 46 Then after cutting it up we cook it. 47 When we fry meat, we fry it after first putting flour on it. 48 When we make a drink we get a measured amount of water. 49 We put into that water whatever we are going to put in. 50 Then we stir it and sweeten it. 51 Then we set it on the table.

| DO s-V) | 45Sim [DO s-V] s-V | 46 DO V; DO = [[DO s-V]-head] |
| Time DO s-V (where Time = [DO s-V], DO = [DO partitive Adv s-V]) |
| 48Link Time s-V DO Instr (where Time = [DO s-V]) | 49Goal s-V |
| DO | DO; DO = [[DO s-V]-head] | 50Link DO s-V (where DO = [s-V]) | 51Link Adv s-V Goal |

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