A Grammar of Bora
with
Special Attention to Tone

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A Grammar of Bora
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Special Attention to Tone

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In memory of Eva Thiesen (1925–2009)

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Preface

This book is intended as a baseline description of the the Bora language.[1] 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).[2]

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.[3]

[1] 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.

[2] Unless otherwise indicated, references to Thiesen are to Wesley Thiesen.

[3] 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 indispensible 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 Mibeco.

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 indispensible help for formatting this book with TEX, LATEX and finally XETEX.

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 Adelaar, 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.

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)

: vocalic length

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

⟨**ø**⟩ 'thing' or 'event' (two morphemes that differ only in tonal properties)

⟨**Ø**⟩ 'thing' on marked sentences having -hɯk^{h}o 'focus'

μ mora

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

ø null, empty category (gap, trace,…) **ø**$_i$**,** **ø**$_j$**,** **ø**$_k$ empty category co-indexed with some other element

Ψ**,** Δ**,** Φ**…** variables

$\Phi_i \ldots \Psi_i$ 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 adverbial phrase)

AdvP adverbial phrase
Adv/Adv a suffix that occurs on an adverb, resulting in an adverb
AG agent
anim animate
AnPl animate plural
aug augment
C consonant
Ⓒ the floating low tone at the juncture between a classifier and the preceding element
$\overset{C}{\text{v}}$ low tone (on a vowel) due to a following classifier
-caus causative
CF contrary-to-fact
DET determiner
DHT Default High Tone
dim diminutive
DO direct object
du dual
DuF animate dual feminine
duIn dual for inanimates
DuM animate dual masculine
DVC deverbal classifier
emph emphasis
ex. exclusive (first person plural exclusive)
EXPER experiencer
FDLT Final Default Low Tone
FLTS Final Low Tone Split
frs frustrative, contraexpectation,counterfactual
fut future
Ⓖ the juncture between the modifier (possessor) and head (possessed) of a genitive construction. In some contexts Ⓖ is also used to indicate the floating low tone at this juncture.
$\overset{G}{\text{v}}$ low tone (on a vowel) due to the genitive construction
$\overset{GL}{\text{v}}$ low tone (on a vowel) due to the genitive construction and also a lexically marked low tone
$\overset{GN}{\text{v}}$ low tone (on a vowel) due to the genitive construction and nonfinite tone
H high tone
Ⓗ high tone imposed on a preceding syllable
$\overset{H}{\text{v}}$ lexically marked high tone (on a vowel)
(h) optional preaspiration (that occurs in the preceding syllable coda)
hab habitual
Imp imperative
$\overset{I}{\text{v}}$ low tone (on a vowel) due to the imperative
in. inclusive (first person plural inclusive)
inan inanimate
InPl inanimate plural
Inst instrument
irr irrealis
(j) optional palatalization
-KI implicit -ki ‘purpose’
L low tone
Ⓛ low tone imposed on a preceding syllable
$\overset{L}{\text{v}}$ lexically marked low tone (on a vowel) or a low tone highlighted for the reader’s benefit
L.H adjacent homorganic vowels with low and high tones respectively
Link sentence-initial connective

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
$\overset{N}{\mathbf{v}}$ 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 -nɛ ⟨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
Result$_S$ result clause with same subject
S sentence or clause; subject
$\overset{s}{\mathbf{v}}$ 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 subordinator (-h)
T tone
⟨**t**⟩ the verb-terminating classifier (used when there is a

preverbal subject)
TD tone derivation (in figures)
TBU tone bearing unit
-thm theme (grammatical relation)
thm- thematic connective
UTAH the "uniformity of theta assignment hypothesis"
V verb
v vowel
var variety, various
voc vocative
V/Adv suffix that occurs on a verb and results in an adverb
V/V suffix that occurs on a verb and results in a verb
V/V$_{subordinate}$ suffix that occurs on a verb and results in a subordinate verb
WH interrogative word
$^{(x)}$ optional preaspiration (that occurs in the preceding syllable coda)
-^{x} or -^{h} preaspiration from the following root (in genitive construction)
-x in the glosses of appendix G: preaspiration from the following root
y/n yes or no

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, $\overset{L}{\text{a}}$kpak$^{h}\overset{L}{\text{ɯ}}$nɯ (*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 $\overset{H}{\text{v}}$ to highlight a high tone and $\overset{L}{\text{v}}$ 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:

LETTER	TONE	USE
$\overset{C}{\text{v}}$	low tone	classifier
$\overset{G}{\text{v}}$	low tone	genitive
$\overset{H}{\text{v}}$	high tone	lexically marked high tone
$\overset{H\ L}{\text{vv}}$	high-low tones	remote past tense
$\overset{I}{\text{v}}$	low tone	imperative[a] (verb)
$\overset{L}{\text{v}}$	low tone	lexically marked low tone
$\overset{N}{\text{v}}$	low tone	nonfinite (verb)
$\overset{S}{\text{v}}$	high tone	subordinate (verb)

[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, $\overset{G}{\overset{N}{\text{v}}}$ 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,"

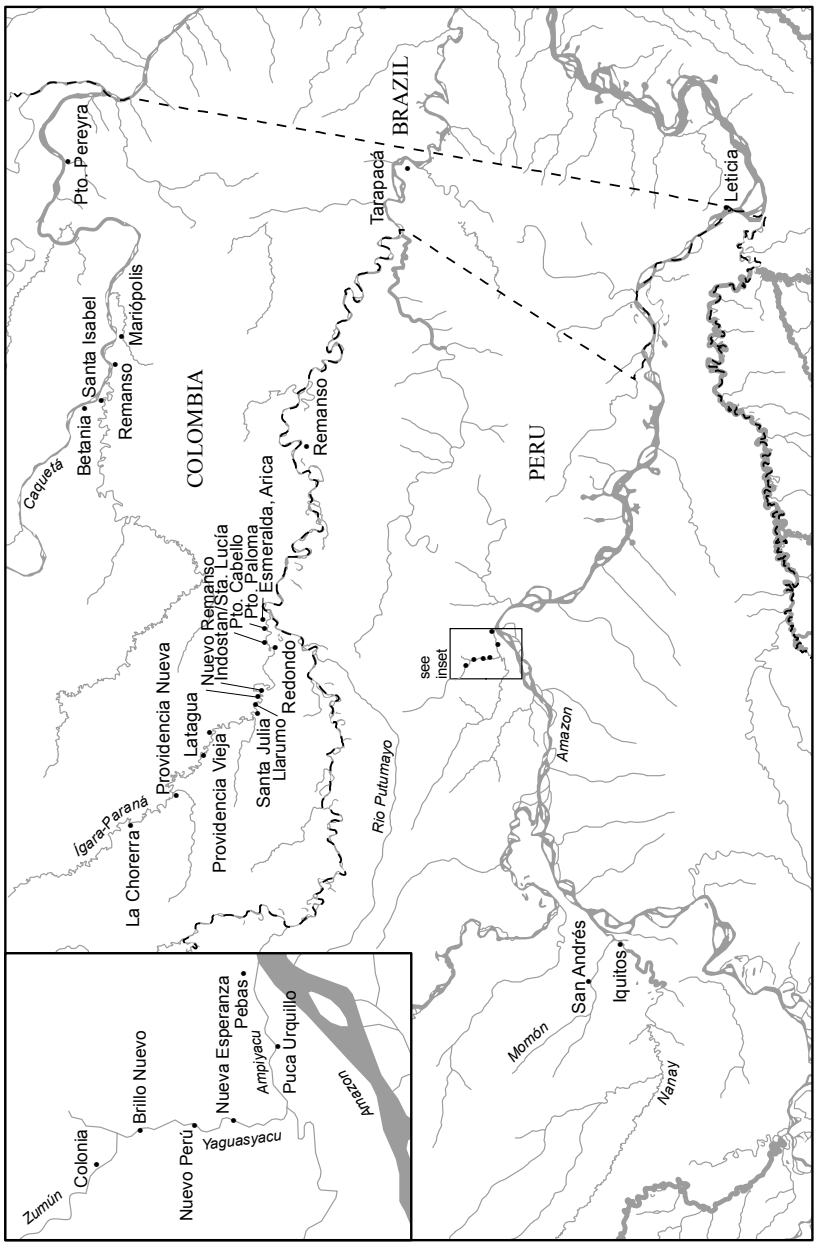


Figure 1.1 Where the Bora people live

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.[1] A closely related—but mutually unintelligible—language is Muinane (not to be confused with Muinane Huitoto, now called Nüpode 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 peoples 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

[1] One 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 [k^{w}].

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 Chorerra.

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,

[2]According 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.[3] 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).

[3] One 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 Ocaina 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

[6]Sometimes, 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.[7]

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.)[8] 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

[7]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.

[8]The young girls came to make sure that Eva and our daughters could not see it.

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.

1.3.2 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

[9]We 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:ʔò 'cassava bread' with pʰɨ̀mɨ́ˀtsʰò '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*,

umarí, *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 poːahɯ. 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 máːʔòó, 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 máːʔòó. 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

crusty gumdrop.[10]

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.

[10]The 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 ahɨ '*carana*[11] 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 ahɨ 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 treadles 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.

[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 tòʔhípà, 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).[12] 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.

[12]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.[13] 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.[14] 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*.[15] 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. After

[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 ìʧʰúɾ̀pà. 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 horizontal 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 hunting with her husband late at night. She waited in a canoe while her husband 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.[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.[18] Thus, the

[18]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 kʲʰò: kʰá ɾɛ́ tì tʃʰà 'Come here now!'
ícyoocáré 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!

HL H H	LL	HL H H	LL
í kʲʰò:kʰáɾɛ́	tìtʃʰà	í kʲʰò:kʰáɾɛ́	tìtʃʰà
Ícyoocáré	dicha.	Ícyoocáré	dicha.
right.now	come.Sg	right.now	come.Sg

HL H	L H L L	L H L	L H L
í ɲɛ̀hɛ́	tʰɯ̀tʰáβà:pɛ̀	tʃìkʲʰáʔpà	tʃìkʲʰáʔpà
Íñejé	tutávaabe	Llicyáhba	Llicyáhba.
clan.name	chief	name	name

HL H H	LL	L H H L L	L H H L L
í kʲʰò:kʰáɾɛ́	tìtʃʰà	mɛ̀máˣtsʰíβàkʰì	mɛ̀máˣtsʰíβàkʰì
Ícyoocáré	dicha	memájtsívaki	memájtsívaki.
right.now	come.Sg	for.to.sing	for.to.sing

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 /k^h/; ch for /$ʧ^h$/; 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 [^{x}] (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 /p^h/; r for /ɾ/; t for /t^h/; ts for /$ʦ^h$/; u for /ɯ/, 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) (C) V ($\left\{ \begin{matrix} x \\ ʔ \\ : \end{matrix} \right\}$)

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

(3) a. à.mó:.pɛ̀ (amóóbe) V.CV:.CV ‘fish (sg)’
b. à.mó.mɛ̀ (amóme) V.CV.CV ‘fish (pl)’
c. ò:.ʔí:.pʲɛ̀ (oohííbye) V:.CV:.CV ‘dog’
d. màˣ.tʃʰò (majcho) CVˣ.CV ‘eat’
e. nàʔ.pɛ̀ (nahbe) CVʔ.CV ‘brother’

Generally, /ʔ/ 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: /ʔ/, /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:

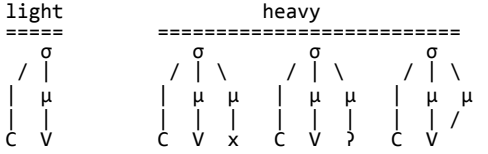


Figure 2.1 Light and heavy syllables

[1] The way Bora is written may mislead one to think that a word has a syllable final /ʔ/ after a long vowel, but it is not so. For example, what is written mááhdohíjcyáh is really má.áʔ.tò.ʔíˣ.kʲʰáʔ, in which the first syllable is (an allomorph of) the proclitic or prefix mɛ- ‘SAP’. Likewise, ɨ́ɨ́hbotáháñeri ‘with his/her coverings’ is ɨ́.ɨ́ʔ.pò.tʰá.ʔá.ɲɛ̀.rì by the addition of i- ‘self’, and dɨ́ɨ́hbota ‘your covering’ is tɨ́.ɨ́ʔ.pò.tʰà by the addition of ti- ‘your’.

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

átsʰìíʔhʲáà	(átsiíhjyáa)	V.CV.Vʔ.CV.V
ɨ́:pùɪúʔháà	(ɨ́ɨbuúhjáa)	V:.CV.Vʔ.CV.V
ìmíkpùɪúʔháà	(imíwuúhjáa)	V.CV.CV.Vʔ.CV.V
màáʔtóʦʰòʔíˣkʲʰáítʲʰùɪró	(maáhdótsohíjcyáítyuró)	CV.Vʔ.CV.CV.CVˣ.CV.V.CV.CV
mɛ̀ɛ́ʔtì:βátʃɛ̀ʔíˣkʲʰá:pé	(meéhdɨ́ɨvállehíjcyáábé)	CV.Vʔ.CV:.CV.CV.CVˣ.CV:.CV
múɪnàáʔháà	(múnaáhjáa)	CV.CV.Vʔ.CV.V
núpʰáˣkʰìíʔʧó	(núpájkiíhllló)	CV.CVˣ.CV.Vʔ.CV
kpápʰíjùɪúɪkʰúɪ:pɛ̀ɛ́ʔhí	(wápíyuúcúúbeéhjɨ́)	CV.CV.CV.V.CV:.CV.Vʔ.CV

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. tì.í.pʲè /tì:pʲè/ (diíbye) CV.V.CV 'he'
b. tí:.pʲè ɛ́ʔnè /tí:pʲè ɛ́ʔnè/ (dííbye éhne) CV:.CV 'his (thing)'

(5) a. t*aá*bo
tʰà.á.pò /tʰà:pò/ CV.V.CV 'medicine'
b. t*aa*bóóbe
tʰà:.pó:.pè /tʰà:pó:pè/ CV:.CV:.CV 'the doctor'
c. t*áá*boóbe
tʰá:.pò.ó.pè /tʰá:pò:pè/ CV:.CV.V.CV 'he medicates'

(6) a. cuúmu
kʰù.ú.mùɯ /kʰù:mùɯ/ CV.V.CV 'large signal drum'
b. cúúmub*a*
kʰú:.mù.pà /kʰú:mùpà/ CV:.CV.CV 'small drum'

There are a few cases where adjacent, homorganic vowels with the same tone represent different syllables. The root kpàjɛɛ- 'to rest' ends in two like vowels, each projecting a syllable. In 7, note that -Ⓛ:βè 'sIn' lengthens only the second of the two vowels:

(7) a. ó kpájɛ́ɛ́-:βè-tʰé-ʔì (Ó w*á*yéééévetéhi.) 'I go to rest.'
I rest-sIn-go.do-⟨t⟩
b. ó kpájɛ́è-:βé-βá-ʔì (Ó w*á*yéeevév*á*hi.) 'I come to rest.'
I rest-sIn-come.do-⟨t⟩
c. kpájè́ɛ́-:βè (¡W*á*yéééve!) 'Rest!
rest.imp-sIn (sg imperative)'

Another example is kpà:kóò 'throw'. By contrast, the final /ùɯ/ of ɨhu̱:ᴸ 'dove' is a single syllable with a long vowel, but may be followed by the classifier -ɯ ⟨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

	front	central	back −round	back +round
high	i (i)	ɨ (ɨ)	ɯ (u)	
mid	ɛ (e)			o (o)[a]
low		a (a)		

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

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

(8) a. àmómɛ̀ (amóme) 'fish'
b. ò:ʔí:pʲɛ̀ (oohííbye) 'dog'
c. kʰá:nìí (cáánii) 'father'

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

(9) a. ùhɨ̀ (ujɨ) 'plantain'
b. ɨ́hùɯ (ɨ́ju) 'horse'
c. ɨ́hùɯ́ɯ̀ (ɨ́juúu) 'dove'

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

(10) a. kʰùɯ́mɯ̀ (cuúmu) 'drum'
b. ùɯ́ɯ (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 [ˣ]. For example, ìˣkʲʰà 'to be' is pronounced [ɪˣkʲʰa]; its initial /i/ is lower than that of íhʲàá 'this house', in which the /h/ following the /i/ is the onset of the next syllable. The pronunciation of /i/ as [ɪ] is not written in the phonetic representations throughout this grammar.
/i/ becomes /ɨ/ when the following syllable has /ɨ/. For example, compare 11a and b:

(11) a. í̲-hʲàá (íjyɑ́ɑ́) ‘this (house, clothing,…)’
this-⟨shelter⟩
b. í̲-hɨ́ɨ́ (ɨ́jɨɨ́) ‘this (pill, country,…)’
this-⟨disk⟩

For another example see ɨ́ːtsʰɨ́ːmɛ̀ ‘self’s children’ in examples 471 and 472, page 209.

Likewise, the proclitic ti ‘your’ becomes tɨ immediately before a syllable containing /ɨ/; witness 12:

(12) /tì nɨ̀ːtsʰʊ́ɯ-kpà/
[tɨ̲nɨ̀ːtsʰʊ́ɯkpà]
(dɨ́nɨɨtsúwɑ) ‘your machete’

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

2. /ɛ/ is raised before /i/; for example, the /ɛ/ of kpákʰìmʲɛ́ì ‘work’ is [e], whereas it is [ɛ] in ʊ́mɛ̀ʔɛ̀ ‘tree’.
/ɛː/ becomes [æː] before a syllable containing /i/; for example /mɛːni/ ‘pig’ is pronounced [mæ̀ɛ́nì]. (/æː/ becomes [æ̀ɛ́] 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) m{ɛ́ / á}-àβʲɛ́hʊ̀ɯ-ːpɛ̀ (m{é / á}ɑvyéjuúbe) ‘our chief’
3. In a few words /a/ becomes [ɔ]; for example the /a/ of pʰámɛ̀ːɾɛ̀ ‘all animate’ is pronounced [ɔ]: [pɔ́mæ̀ɛ́rɛ̀]. 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, ìáːpɛ̀ ‘animal’ may be pronounced [ìyáːpɛ̀].

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 -Ⓛːpɛ̀ ⟨SgM⟩ is suffixed to a stem, the stem-final vowel is lengthened, as occurs twice in 14:

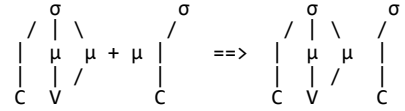
(14) Oke ájcu̲u̲be oohíi̲byedívu.
ò-kʰɛ̀ áˣkʰʊ̀ɯ̲-ːpɛ̀ òːʔí̲-ːpʲɛ̀-tí-βʊ̀ɯ ‘He gave me a dog.’
I-objAn give-⟨SgM⟩ dog-⟨SgM⟩-anim-thm

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

(15) /máˣʧʰò-ːpè/ [máˣʧʰòópè] (májchoóbe) ‘he eats’
eat-⟨SgM⟩

Other suffixes that lengthen preceding vowels are -ːkʰɯ ‘duIn’, Ⓛ◯-ːnɛ ‘plural’ -ːpʰi ⟨SgM⟩, -(ː)ɾɛ ‘only’, in some contexts -Ⓛ⁽ˣ⁾tʰè ⟨AnPl⟩, and -Ⓛːβɛ ‘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”:



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

(16) a. tsʰáː-mɯ̀tsʰì (tsáámutsi) ‘they (DuM) come’
b. tsʰàː-ːpè (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. pʰèː-ʧè ⟶/pʰèːʧè/ [pʰèéʧè] (peélle) ‘she goes’
b. pʰèː-mè ⟶/pʰèːmè/ [pʰèémè] (peéme) ‘they go’
c. pʰèː-ːpè ⟶/pʰèːpè/ { [pʰèépè] / *[pʰèéːpè] } (peébe) ‘he goes’

And as a final example, consider -hɯkʰo: ‘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. màˣʧʰóhúɯkʰòópè (majchójúcoóbe)
/màˣʧʰó-hɯ́kʰòː-ːpè/ ‘he has eaten’
b. màˣʧʰóhúɯkʰòóʧè (majchójúcoólle)
/màˣʧʰó-hɯ́kʰòː-ʧè/ ‘she has eaten’
c. màˣʧʰóhɯ̀kʰóːmè (majchójucóóme)
/màˣʧʰó-hɯ́kʰóː-mè/ ‘they have eaten’
d. màˣʧʰóhúɯkʰòːmɯ́tsʰì (majchójúcoomútsi)
/màˣʧʰó-hɯ́kʰòː-mɯ́tsʰì/ ‘they(DuM) have eaten’

2.4 Consonants

The consonants are given in table 2.2.

Table 2.2 Consonants

	labial	coronal		dorsal	laryngeal
obs[a] len	p (b)	t (d)	ts (ds)	k (g)	ʔ (h)
for	p^h (p)	t^h (t)	ts^h (ts)	k^h (k or c)	
len pal	p^j (by)	t^j (dy)	$ts^j \sim tʃ$ (ll)	k^j (gy)	$ʔ^j$ (hy)
for pal	p^{jh} (py)	t^{jh} (ty)	$ts^{jh} \sim tʃ^h$ (ch)	k^{jh} (ky)	
lab-vel				kp ∼ k^w (w)	
fric plain	β (v)			x ∼ h (j)	
pal	$β^j$ (vy)			h^j (jy)	
nas plain	m (m)	n (n)			
pal	m^j (my)	ɲ (ñ)			
res plain		ɾ (r)			
pal		j^b (y)			

[a] obs = obstruent, len = lenis, for = fortis, pal = palatal, lab-vel = labial-velar, fric = fricative, nas = nasal, res = resonant

[b] Or possibly $ɾ^j$.

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 [ˀ] an allophone of /ʔ/, with which it is in complementary distribution? (3) Is [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. $p^hɛ̀$:pɛ̀ (peébe) 'he goes'
b. pɛ́:pɛ̀ɛ́ (béébeé) 'the new one'

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

(20) a. tà:$tʃ^hì$ (daáchi) 'his son'
b. t^hà:tʃɛ̀ (taálle) 'she cries'

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

(21) a. ts^hɨ́ts^hɨ̀ɨ́hɨ̀ (tsɨ́tsɨ́jɨ) 'white button'
b. tsɨ́:tsɨ̀hɨ̀ (dsɨ́ɨ́dsɨjɨ) 'coin'

/tʃ/ (orthographic ll) and **/tʃʰ/** (orthographic ch) differ by aspiration, as in the following pairs:

(22) a. tʃʰémɛ̀ːpɛ̀ (chémeébe) 'he is sick'
b. tʃ̲éːnɛ̀ːpɛ̀ (llééneébe) 'he eats fruit'

(23) a. ítʃʰìː (íchii) 'here'
b. ítʃ̲íí (íllií) 'his/her son'

/tʃʰ/ (orthographic ch) contrasts with **/tʲʰ/** (orthographic ty), as in 24:

(24) a. áàtʃʰì (*á*achi) 'outside'
b. àːt̲ʲʰ̲è (*aá*tye) 'those'

/k/ (orthographic g) and **/kʰ/** (orthographic c before a, o or u but k before e, i or ɨ) differ by aspiration, as in 25:

(25) a. k̲òːkʰómɛ̀ (goocóme) 'they laugh'
b. k̲ʰáʔkɯ́nɯ̀ɯ̀kʰò (cáhgúnuco) 'cahuana (starch drink)'
c. k̲ʰíkʰìːhʲɛ̀ (kíkiíjye) 'bat'

/kp/ (orthographic w) is a voiceless labial-velar stop, as in 26:

(26) a. k̲pàʔárò (waháro) 'mother'
b. ó k̲pàːhákʰɯ́-ʔì (ó waajácúhi) 'I know-⟨t⟩'

There are interesting restrictions on /kp/ (w). First, it only occurs before /à/ or /ɯ/ (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 ìmík̲pɯ̀ɯ̀ 'very good'. Third, generally neither /ʔ/ (h) nor /ˣ/ (j) (preaspiration) may precede /kp/, but a long vowel may, as in ɛ̀ː-k̲pà (that-⟨slab⟩) and ɪ́mɪ́ːá-k̲pà (proper-⟨slab⟩).

/β/ (orthographic v) is a voiced labial fricative, as in 27:

(27) a. ɾɛ́β̲óː-β̲ɛ̀ːpɛ̀ (révóóveébe) 'he turns around'
b. β̲àháː-β̲ɛ̀ (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. h̲àá (jaá) 'house'
b. kpàːh̲ákʰɯ̀ɯ̀ (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:[2]

(29) a. màˣ̲tʃʰò (majcho) 'food'
b. màˣtʃʰóhɯ̀ɯ̀ˣ̲ (majchójuj) 'eat (hurriedly)'

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

[2]Since 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., mé:nìmù (méénimu) 'pigs'.

/n/ (orthographic n) is an alveolar nasal; e.g., mé:nìmù (méénimu) 'pigs'.

/ɲ/ (orthographic ñ) is an alveolar nasal with a palatal offglide; e.g., há:ʔàɲè (jáhañe) 'various houses'. 30 shows the contrast between /n/ and /ɲ/:

(30) a. nàmè (name) 'type of monkey'
b. ɲàmà (ñama) 'to bewitch'

Although /ɲ/ is a phoneme, in some contexts it might be considered an allophone of /n/.

/ɾ/ (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. mìjímíjì (miyímíyi) 'eyes half closed'
b. βìjí:βʲè (viyíívye) 'to rotate'
c. a ʧì?íjò (llihíyo) 'father'
d. ɾo:?ò ~ jò:?ò (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. ájánékpù (áyánéwu) 'a little'
b. jó:?ìí (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 [Cʲ], 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. ʔé:.kʰò.ó (héécoó) 'meat'
b. ú.mɨ̀.ʔè (úmɨhe) 'planted field'

[ˀ] (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. fˀ.ná.ʔò.ó (ɬhnáhoó) 'power'
b. àˀ.tò[4] (ahdo) 'pay'

[3] Intervocalic /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 [ˀ] is never written, even those that persist in a phrase.[5] For example, what is written as 35a is pronounced as in 35b:

(35) a. Muurá tsá dibye ímílletú ipyééneé.

b. mɯ̀ːɾá̱ˀ tsʰá̱ˀ tìpʲè ímíʧè-tʰɯ́ ì pʲʰéːnèé̱ˀ
confirm not he want-neg self go-⟨ø⟩
'Well, he does not want to go.'

When a morpheme ending in [ˀ] is followed by one beginning with /ʔ/, the adjacent glottal stops are pronounced as a single one. For example, ɛˀ- 'this' followed by -ʔaːmɨ̀ ⟨leaf⟩ (book, paper,…) becomes simply é̱ʔá̱ːmɨ́ɨ́ 'this leaf (book, paper, etc.)'.

Several interjections have a final glottal stop, even sentence medially;[6] for example:

(36) àné̱ˀ mèɛ́nɯ̀ (aná meénu) 'OK. Then do it.'
àné̱ˀ kpàì mèɛ́nɯ̀ (aná wai meénu) 'OK. Then you may do it.'

(37) Cána bo dipye ɨ́ɨ́cúiíˀ.
kʰánàˀ pòˀ tì-pʲʰè ɨ́ːkʰɯ́ɯ̀ìí 'I encourage you to
suggest encourage youImp-go quickly go quickly.'

Many onomatopoeic words end with a glottal stop:

(38) Callúhcállú keeme tsáá juuváyi.
kʰàʧɯ́ˀ-kʰáʧɯ́ˀ kʰèːmè tsʰáː-ʔì hɯ̀ːβá-jì
tap-tap old.man come-⟨t⟩ trail-oblIn
'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., tsʰᴴáʔàá ~ tsʰᴴáˀ '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.

2.4.2 Palatalization

All consonants except /kp/ (w) have palatalized counterparts:[7] Even /ʔ/ (h) may be palatalized, for example, ìʔʲà 'probably'.

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

(39) a. tì-ːpʲɛ̀ (that-⟨SgM⟩ diíbye) 'he'
b. ᴸóːʔí-mʲɛ̀ (dog-⟨AnPl⟩ oohímye) 'dogs'

However, consonants are not always palatalized after /i/, e.g., the /m/ of ìmítʃʰò 'to encourage' is not palatalized. Likewise, in 229, page 131, neither /ʔ/ nor /m/ are palatalized after /i/ in the word ì-ʔáˣkʰí-mùu-kʰɛ̀. See also example 404, page 194.

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

(40) a. átʲʰáːpàá (*átyáábaá*) 'my wife'
b. àβʲɛ́nɛ̀ (*avyéne*) 'it hurts'

Aschmann[8] reconstructs these words as containing /*ai/, thereby accounting for why consonants following these cases of /a/ cause palatalization.[9] 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:

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

PLAIN		PALATALIZED	
ɾ	(r)	j	(y)
n	(n)	ɲ	(ñ)
tsʰ	(ts)	tʃʰ	(ch)
ts	(ds)	tʃ	(ll)

[8]Aschmann (1993:18, section 2.1) writes the following about /ai/:

> …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.

[9]In Bora there are one or two words that preserve the diphthong, for example, kpaʲtʃe 'woman'. Although the [ʲ] is pronounced in this word, it is written simply as w*a*lle.

(41) a. à-:p̲è tsʰá:-ˀ. (Aabe tsáá.) (anaphoric)
thm-⟨SgM⟩ come-⟨t⟩
b. à-:pʲ̲è tsʰá:-ˀ. (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. màˣtsʰì (majtsi) 'song'
màˣʧʰì (majchi) 'juice'
b. kpàˣkʰò (wajco) 'flower'
kpàˣkʲʰò (wajcyo) 'hook'
c. kpápɛ̀ákʰò (wábeáco) 'to fold (double)'
kpápʲɛ̀ákʰò (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 tʲʰ in tʲʰá:jàhɨ̀ (tyááyajɨ) 'peccary', and for the /ñ/ of ɲàháˀkʰò (ñajáhco) 'softness, be soft'.[10]

Bimorphemic words such as (tahjya) tʰàˀ-h̲ʲà (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 ìím̲ípáˣʧʰò-kʰì (iímíbájchoki) is not palatalized by the following /i/.

/ɾ/ becomes j (y) only after /i/, never after the /a/s that are reconstructable as /*ai/. Example 43 involves the suffix -ɾɛ̀ (-re) 'only':

(43) a. òó-ɾ̲ɛ̀ (oóre) 'only I'
b. ìí-jɛ̀ (iíye) 'only he himself'

[10] See also the following entries in (Thiesen & Thiesen 1998): dyeee, dyéhpiyi, dyííyihye, dyuu, kyeehéi, kyehéjco, kyehéjkyéhe, kyéhéjkimyéi, ñáhi, ñahíñáhi, ñahíívye, ñáhiivyétso, ñahja, ñahjátso, ñahñáro, ñahóñáho, ñaj, ñáj, ñája, ñajáñája, ñama, ñámaj, ñaamáwa, ñáya, ñáyaj, ñáyájcoó, ñayáñáya, ñayááve, ñogéhñóge, ñohñócu, ñohñóro, ñohñótso, ñoohócu, ñói, ñóihjyúcu, ñojáhco, ñojáñója, ñomɨ, ñomɨɨte, ñóñi, ñoñóñóño, ñóoo, ñóyoúúve, ñúhiúcunu, ñuhíívye, ñumɨñúmɨ, tyajtya, tyekétyéke, tyocáhco, tyocáhtyóca, tyoéyeba, tyoéyeba, tyóóñojɨ, tyuuhúmɨ.

[11] tʰàˀ-h̲ʲà 'my house' contrasts with tʰàˀh̲à 'to win'. Remarkably, the various allomorphs of 'my' (tʰaˀ ~ tʰa: ~ tʰa) do not consistently palatalize the following consonant. tʰàˀhʲà 'my house' shows that tʰaˀ 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: Ⓖ k̲ʰá:nìí (táácáánií) 'my father'
ii. tʰá ɲaᴳˀpɛ́-mù (táñahbému) 'my brothers'
iii. tʰᴳa m̲é:nì (tamééni) 'my pig'

Example 44 involves the suffix -ɾà (-ɾa) ‘frustrative, contraexpectation’:

(44) a. ó máˣʧʰò-ɾá-ʔì (Ó májchoráhi.) ‘I ate, but not well.’
I eat-frs-⟨t⟩
b. ó máˣʧʰó-ì-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-ɲɛ̀é (íñeé) ‘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.’
b. tíʧʰàá (Díchaá.) ‘Come!’

However, in the other Bora clan dialects this root is invariably ʧʰa: (chaa).

Likewise, in some Bora dialects the causative suffix -tsʰo becomes -ʧʰo after /i/; e.g., àníˣʧʰò ‘to make thinner’,[13] ìmíʧʰò ‘to encourage’.[14]

Palatalization by /i/ or /a/ is not blocked by an intervening syllable-final /ˣ/ or /ˀ/.

(47) a. ìˣkʲʰà (ijcya) ‘to be’
b. ìˀtʲù (ihdyu) ‘like that’

(48) a. àˣkʲʰè (ajkye) ‘get up’
b. tʰàˀhʲà (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 ɾ) as in 49b:[15]

(49) a. íʔʲèé (íhyeé) /í-ʔè/ this-⟨tree⟩
b. ìmíʔʲè (imíhye) /ìmíˀ-ɾè/ good-only

[12]It also sometimes happens after /a/ as in aɲɯ ‘buzzard’. This is probably due to this /a/ being a reflex of /*ai/, as discussed above.

[13]Compare àjáˣtsʰò ‘to make smaller’, where it does not palatalize.

[14]To this list we might add ímìpáˣʧʰò, which historically was probably /imi-pʰai-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 2.3 A palatalization shift

	SINGULAR	MULTIPLE	MEANING
transitive	pàpʲárò (babyáro)	pàpáɲɯ̀ (babáñu)	'to bag'
intransitive	pàpá:βʲɛ̀ (babáávye)	paˀpápʲà (bahbábya)	'to blister'

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

Table 2.4 Palatalization with 'stretch out the leg'

	SINGULAR	MULTIPLE	MEANING
transitive	kʰákpà:βʲɛ́tsʰò (cáwaavyétso)	kʰáˀkpàpʲátsʰò (cáhwabyátso)	'make stretch out leg'
intransitive	kʰàkpá:βʲɛ̀ (cawáávye)	kʰàˀkpápʲà (cahwábya)	'stretch out leg'
stative	kʰákpàjʉ́kʰʉ̀nɯ̀ (cáwayúcunu)		'leg stretched out'

The verb kʰàkpà- 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/.[16]

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

2.4.3 Preaspiration

Generally, /ˣ/ 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.[17] 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 [ˀ]; see example 52.

/ˣ/ that cannot be the result of "preaspiration" because they end words. These are the suffixes -ˣ 'vocative' and -hùˣ 'quick', as in 50:

(50) W*á*h*a*j, dich*á*juj.
kpáʔà-ˣ tì-ʧʰá-hùˣ '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[18] 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 á:nùɯ 'this (SgM)', a demonstrative pronoun, is the subject, not a possessor:

(51) a. á:nɯ́ˣ tsʰᴳɨ:mɛ́nɛ̀ (*áá*núj tsɨɨméne) 'this one's child'
b. á:nùɯ tsʰɨ́:mɛ̀nɛ̀ (*áá*nu tsɨ́ɨ́mene) 'this one (SgM)
is a child'

The following roots contribute aspiration to the coda of the modifier (possessor) in the genitive construction: kʰá:nìí 'father', kʰá:tʰɯ̀ɯ́ 'type of plant', kʰàáβà 'because of', kʰòó 'firewood', kʰɯ́pàá 'leg', kʰɯ́:hɯ̀kpà 'fireplace', kʰɯ́:hɯ́kpàmɨ̀ 'steamship', kʰɯ́:ɾɯ̀: 'kidney', kʰɯ̀βà 'odor', kʰɛ́ɛ́ 'voice', pʰɛ́:βɛ̀ 'free', pʰɨ̀í 'body', pʰɨ̀:ʔɨ 'near', pʰɨ́:nɛ̀ɛ́ 'middle', tʰànɛ̀ 'left behind (clitic)', tʰà:βà 'what is taken in a hunt', tʰɛ́:βɛ̀ 'by means of', tʰòó 'horn (of an animal)', tʰɯ́ʔàá 'foot'. There are other roots that begin with aspirated obstruents that do not contribute aspiration to the preceding syllable, for example, kʰà:tʰɯ́nɯ̀ɯ́:ʔʲò 'pencil', pʰí:ʧʰɯ̀tʰà 'load', tʰòkpà 'sweat', and tʰɯ̀pó:kpà 'bow'.

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. kʰàˀkʰɯ́ˣtsʰò (*cahcújtso*) 'to believe'
b. kʰàˀpʰíò (*cahpío*) 'to pour out'
c. pàˀtsʰɨ́hɨ̀ (*bahtsɨ́jɨ*) 'type of fish'
d. táɨ́ˀkʰòó (*dáɨ́hcoó*) 'to be refreshing'
e. ɨ̀ˀtʰúkʰɯ̀ (*ɨhtúcu*) '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.[19] For example, the root maˣʧʰo 'eat' has preaspiration, but when -ʔiˣkʲʰa '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.

(53) mátʧʰò-ʔíˣkʲʰà-ːpɛ̀ (Máchohíjcyaábe.) ‘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: -ʧìː-(ʔʲɛ̀) ‘motive’ (compare 733 and 1051) with 734), -náà(ákʰà) ‘while’, -àˣʧʰíː(hʲɯ̀) ‘if’, -hɨ́ː(βà) ‘deny’, and -kpɯ̀(ɯ̀) ‘very’.

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

(54) a. mɯ̀ːɾá-ʔàhà (muuráhaja) ∼ mɯ̀ːɾá-ˀ (muurá) ‘challenge veracity’

b. ànɛ́-ʔàːkʰà (anéhaaca) ∼ ànɛ́⁽ˀ⁾ (ané) ‘concede’

c. tsʰᴴáʔàá (tsáhaá) ∼ tsʰᴴáˀ (tsá) ‘not’

d. pòʔò (boho) ∼ pòˀ (bo) ‘encouragement to do’

e. ʧìʔíjòˣ (llihíyoj) ∼ ʧìʔíɯ̀ˣ (llihíuj) ∼ ʧíʔìˣ (llíhij) ∼ ʧì⁽ˀ⁾ (lli) ‘father/son (vocative)’

f. kpàʔáɾòˣ (wahároj) ∼ kpàʔáɯ̀ˣ (waháuj) ∼ kpáʔàˣ (wáhaj) ∼ kpà⁽ˀ⁾ (wa) ‘mother/daughter (vocative)’

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

The suffix -nɛ ⟨n⟩ is sometimes omitted following -tʰɯ ‘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.

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 /ˀ/ is pronounced (but not written).[20] For example, compare 55a and b:

(55) a. ó àˀtó-ʔì (Ó ahdóhi.) 'I paid.'
I pay-⟨t⟩
b. ó àˀtó-ˀ tíːpʲɛ̀-kʰɛ̀ (Ó ahdó 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.[21]

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:[22]

Table 2.5 Reduplication: nothing at the boundary

SIMPLE	REDUPLICATED	MEANING
áβò	àβóáβò	expresses desire to cover up
pómì	pòmípómì	side to side movement like a fish's tail
kʰáʔò	kʰàʔókʰáʔò	sound like chewing on something hard
kʰátsʰʉ̀	kʰàtsʰʉ́kʰátsʰʉ̀	expresses indecision
kʰójò	kʰòjókʰójò	sound of a stick whipped through the air
ʧʰékʰò	ʧʰèkʰóʧʰékʰò	sound like chewing something hard

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[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: íhʲóˀíhʲò.

[22]The following is exceptional in that the vowel is lengthened: SIMPLE: kʰòí, REDUPLICATED: kʰòíː:-kʰòíː:.

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SIMPLE	REDUPLICATE	MEANING
kúʔò	kùʔókúʔò	sound made by the spines of a certain fish
kʰéβì	kʰèβíkʰéβì	movement like that of the head of a sleeping baby
ʧóʔɨ	ʧòʔɨ́ʧóʔɨ	movement of grabbing something
pʰíʔpʰì	pʰìpʰípʰɨ́pʰì	sound like the flapping of wings against something
ɾɨ́ù	ɾìúɾɨ́ù	movement of a baby scooting on its buttocks
ɾíhʲà	ɾìhʲáɾíhʲà	movement of walking
tʰúà	tʰùátʰúà	kicking the feet in the air
tsʰítʲʰù	tsʰìtʲʰútsʰítʲʰù	characteristic of being brittle and breakable
βɨ́ù	βìúβɨ́ù	characteristic of being light, weightless
kpáʧà	kpàtʃákpáʧà	movement of lying on the back and twisting from side to side
kpátʰò	kpàtʰókpátʰò	movement of something snagged in the river

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

Table 2.6 Reduplication: [ʔ] at the boundary

SIMPLE	REDUPLICATED	MEANING
ápʲʰù	àpʲʰúʔápʲʰù	movement of a puff of dust or smoke
pótsʰè	pòtsʰéʔpótsʰè	movement of the tail of a bird walking
kʰátʃò	kʰàtʃóʔkʰátʃò	movement of one falling down head first
kʰápʰà	kʰàpʰáʔkʰápʰà	capturing a fish on a fishhook
kʰátsʰù	kʰàtsʰúʔkʰátsʰù	expresses indecision
kʰútù	kʰùtúʔkʰútù	sound of throwing up
kʰúβì	kʰùβíʔkʰúβì	manner of the walk of a man with a short leg
ʧʰíjà	ʧʰìjáʔʧʰíjà	sound when walking in a shallow pool
ʧékʰò	ʧèkʰóʔʧékʰò	movement like that of a wobbly building frame
máɾà	màɾáʔmáɾà	sound of gunfire
móʔà	mòʔáʔmóʔà	sound of a thick liquid falling into a pot
múɾù	mùɾúʔmúɾù	movement like the sudden disappearence of something

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SIMPLE	REDUPLICATE	MEANING
nɨà	nɨáˀnɨà	licking of the lips
nóùɯ	nòúˀnóùɯ	gasp of breath like that caused by a scare
ɾákà	ɾàkáˀɾákà	sound of difficult breathing
ɾétsʰè	ɾètsʰéˀɾétsʰè	back and forth movement of a shaky construction
ɾúkɯ̀	ɾɯ̀kúˀɾúkɯ̀	twitching of a body part
tʰókʰò	tʰòkʰóˀtʰókʰò	sound of something loose inside of something else
tsʰéɯ̀	tsʰèúˀtsʰéɯ̀	sound of cutting a plant with one slash
tsʰúnà	tsʰùnáˀtsʰúnà	jumping like a frog
βétʃʰì	βètʃʰíˀβétʃʰì	up and down movement of the end of a log in the river
βótʃʰì	βòtʃʰíˀβótʃʰì	juice squirting out of a juicy fruit
kpátɯ̀	kpàtúˀkpátɯ̀	punching holes in the ground as when planting corn
ɲájà	ɲàjáˀɲájà	sinking into the mud
ɲóì	ɲòíˀɲóì	action of a baby nursing

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

Table 2.7 Reduplication: optional [ˀ] at the boundary

SIMPLE	REDUPLICATED	MEANING
pɨ́nà	pɨ̀ná(ˀ)pɨ́nà	movement of an object floating in the river
kʰúɪtsʰè	kʰùɪtsʰé(ˀ)kʰúɪtsʰè	walking on the toes
tókpà	tòkpá(ˀ)tókpà	extending the hands
kóɾà	kòɾá(ˀ)kóɾà	sound of bubbling water
kúɪɾɯ̀	kɯ̀ɾúˀ(ˀ)kúɪɾɯ̀	grunt of a pig
ʧákʰì	ʧàkʰíˀ(ˀ)ʧákʰì	movement from side to side
ʧíkʲʰɯ̀	ʧìkʲʰúˀ(ˀ)ʧíkʲʰɯ̀	pulling by jerks
nɨ́hɨ̀	nɨ̀hɨ́(ˀ)nɨ́hɨ̀	sticking out the tongue
nóhɨ̀	nòhɨ́(ˀ)nóhɨ̀	ripples and waves on a river
ɲóɲì	ɲòɲíˀ(ˀ)ɲóɲì	snarling of a dog
ɾépì	ɾèpíˀ(ˀ)ɾépì	fast movement of the point of a switch
ɾúpì	ɾɯ̀píˀ(ˀ)ɾúpì	puffing of the smoke of a cigarette
tʰíɲì	tʰìɲíˀ(ˀ)tʰíɲì	bouncing of a ball
tsʰúkɯ̀	tsʰɯ̀kúˀ(ˀ)tsʰúkɯ̀	sound of a hiccup

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SIMPLE	REDUPLICATE	MEANING
kpámì	kpàmí$^{(?)}$kpámì	up and down movement of the head
kpájà	kpàjá$^{(?)}$kpájà	side to side shaking of the head
kpúk^{h}ù	kpùk^{h}ú$^{(?)}$kpúk^{h}ù	sound made by hitting a hollow log

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

SIMPLE	REDUPLICATED	MEANING
k^{h}ópù^{x}	k^{h}òpú^{x}k^{h}ópù	sound like gurgling water in the stomach
k^{h}ótà^{x}	k^{h}òtá^{x}k^{h}ótà	sound like swallowing water
ʧórì^{x}	ʧòrí^{x}ʧórì	movement like climbing up or down a tree with difficulty
mójì^{x}	mòjí^{x}mójì	movement like a needle point entering something soft
nórà^{x}	nòrá^{x}nórà	movement like breaking though a surface
ɾút^{h}ù^{x}	ɾùt^{h}ú^{x}ɾút^{h}ù	movement like a shooting flame of fire
t^{h}ópù^{x}	t^{h}òpú^{x}t^{h}ópù	sound like a small stone splashing into the river
βɨts^{h}ò^{x}	βìts^{h}ó^{x}βɨts^{h}ò	sound like walking in very loose shoes
βíù^{x}	βìú^{x}βíù	sound like a stick breaking
βóhò^{x}	βòhó^{x}βóhò	movement like juice escaping from a cracked fruit
ɲá^{x}	ɲàá^{x}ɲáà	sensation like getting burned

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

SIMPLE	REDUPLICATED	MEANING
áβì^{x}	àβíáβì	sound like branches moving in a tree
pɛ́ɾɛ̀^{x}	pɛ̀ɾɛ́pɛ́ɾɛ̀	sensation like an electric shock
k^{h}árù^{x}	k^{h}àɾúk^{h}árù	movement like a head turned up looking into the sky
k^{h}ɛ́ɾò^{x}	k^{h}ɛ̀ɾók^{h}ɛ́ɾò	movement like submerging into something

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SIMPLE	REDUPLICATE	MEANING
kʰétsʰɛ̀ˣ	kʰɛ̀tsʰékʰétsʰɛ̀	movement like stetching the neck to see something
ʧúhàˣ	ʧùhátʃúhà	movement like something becoming smaller
mútʰùˣ	mùtʰúmútʰù	sound like something falling from up high
βáhàˣ	βàháβáhà	characteristic like something ready to pop open

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

Table 2.10 Reduplication: optional [ˣ] at the boundary

SIMPLE	REDUPLICATED	MEANING
ɾéβòˣ	ɾèβó(ˣ)ɾéβò	movement like turning around or rolling over
tʰóhɛ̀ˣ	tʰòhé(ˣ)tʰóhɛ̀	movement like swimming in the river
βútùˣ	βùtú(ˣ)βútù	sound like a liquid dripping

For many words the root may be repeated three or more times: tùˣ ‘sound like a dull thud or bump’ becomes tùˣ-tùˣ-tùˣ ‘the sound of multiple impacts (something hitting the ground, hitting with the fist, cattle walking on hard ground,…)’; tʲùː[23] ‘the sound of a bell’ becomes tʲùː-tʲùː-tʲùː…‘the sound of a bell ringing’; tsáːà-tsáːà-tsáːà ‘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’; kpjɛ́òː-kpjɛ́òː ‘the sound of a frog when caught by a snake’.

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.

[23]This could also be [tʲúː] or [tʲéː] 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: σσ. For example, ha 'house' becomes hàá.[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 [tsʰáʔ] 'not' in 56:

(56) tsʰáʔ(ì) ò máˣʧʰò-tʰɯ́ (Tsá o májchotú.) 'I did not eat'
not I eat-neg

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 -ɾɨβakʰo 'resulting position'; 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)βè 'sIn' is similar. It usually lengthens the vowel of a preceding light syllable, as in the following examples:

following a bisyllabic stem

áí-ːβʲé-nè-tʰɯ̀ (*áíívyénetu* burn-sIn-⟨ø⟩-sou)
kʰáp ʰà-ːβʲé-ʔì (*cápaavyéhi* hook-sIn-⟨t⟩)
kʰárɯ̀-ːβé-ʔì (*cáruuvéhi* lift.face-sIn-⟨t⟩)
kʰóɾɨ́-ːβè-íɲɯ́-ʔì (*cóɾɨ́ɨveíñúhi* unstick-sIn-do.go-⟨t⟩)
t-àkʰɯ́-ːβé (*dacúúvé* youImp-sit.down-sIn)

[24] ha 'house' is also lengthened when followed by a monosyllabic clitic such as -ɾɛ 'only'. The combination haː-ɾɛ undergoes PLTS to yield hàáɾè 'only the house'.

t-ɛ̀kʰé-ːβé (dekéévé youImp-grab-sIn)
ékʰé-ːβè-ʧè (ékéévelle grab-sIn-⟨SgF⟩)
ékʰé-ːβé-ːpè-kʰè (ékéévéébeke grab-sIn-⟨SgM⟩-objAn)
ʉ́ɾà-ːβʲé-mé (úraavyémé follow-sIn-⟨AnPl⟩)
ʉ́ɾá-ːβʲè-ːpè (úráávyeebe follow-sIn-⟨SgM⟩)
ʉ́ɾá-ːβʲè-ˀ íˣkʲʰà-ːpè (úráávyeh íjcyaabe follow-sIn-sub be-⟨SgM⟩)
ʉ́ɾá-ːβʲè-KI (úráávyeki follow-sIn-pur)
βʉ́tò-ːβé-ʔì (vúdoovéhi break-sIn-⟨t⟩)
ì áɾá-ːβè-KI (i árááveki self dry.up-sIn-pur)
ì íkʲʰá-ːβé-tsʰò-KI (i ícyáávétsoki self decorate-sIn-caus-pur)
ɨ̀ típé-ːβé-nɛ̀ (ɨ́ dɨ́béévéne self put.between.lips-sIn-⟨ø⟩)

following a trisyllabic stem

ì ípʰíjé-ːβé-nɛ̀ (i ípíyéévéne self become-sIn-⟨ø⟩)
mé kpáʉ́mì-ːβʲé-ʔì (mé wáúmiivyéhi SAP repeat-sIn-⟨t⟩)

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

(57) ì íˣ̲ʧʰì-βʲé-né (iíjchivyéné self leave-sIn-⟨ø⟩)
ì ɲʉ́ɯkʰóˣ̲pʰɨ́-βé-nɛ̀ (iñúcójpɨ́véne self shame-sIn-⟨ø⟩)

It is thus tempting to say that -(ː)βè 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) míˀ̲ʧʰʉ́ɯ-ːβè-kʰò (míhchúúveco 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 /ˣ/, /ˀ/ or /ː/. 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 (ˀ) to the coda of a preceding monosyllabic root, thereby making it heavy. Among these are the following:

- -Ⓛ⁽ˀ⁾tì (-di ∼ -hdi) 'negative imperative', as in pʰè-ˀtí-ɲɛ̀ (pehdíñe) 'Don't go!'
- -Ⓛ◯⁽ˀ⁾tɯ̀ (-du ∼ -hdu) 'similarity', as in 1082 and 1085, page 424
- -⁽ˀ⁾ʧɪ̀ːʔʲè (-lliíhye ∼ -hlliíhye) 'benefactive', as in 1136, page 434
- -⁽ˀ⁾nè (-ne ∼ -hne) 'recent', as in 1154 and 1155, page 438

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 ($\bar{\sigma} \longrightarrow \breve{\sigma}$ /__ ... $\bar{\sigma}$). For example, pʰɛː 'go' has a long vowel, as in 59a and b, but the length is suppressed when -hɯkʰoː 'now' follows, as in 59c:

(59) a. ó pʰéː-ʔì (ó pééhi) 'I go.'
b. pʰèː-mɛ̀ (peéme) 'They go.'
c. ò pʰé-hɯ̀kʰóː-ʔì (ó péjucóóhi) 'I am going now.'

The bound root ˩apʰàː- '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. àpʰáː-kpá-ɾɛ̀ (apááwáre) 'the only slab'
only-⟨slab⟩-only
b. àpʰáː-ɲɛ́-ɾɛ̀ (apááñére) 'the only thing'
only-⟨ø⟩-only
c. àpʰáː-mʲé-ɾɛ̀ (apáámyére) 'the only ones (AnPl)'
only-⟨AnPl⟩-only
d. àpʰá-ʔàːmɨ́-ɾɛ̀ (apáhaamɨ́re) 'the only leaf-like thing'
only-⟨leaf⟩-only

Other cases are outlined in the following subsections.

2.7.4.1 Length suppressed by -ːcu 'duIn' and -ːne 'plural'

In addition to lengthening their host's final vowel,[25] -ːkʰù 'duIn' and -ːnɛ̀ 'plural' generally suppress the weight of any preceding syllables. For example, compare 61a and b:

(61) a. kʰáːmé-è-mɨ̀ cáámémɨ 'airplane'
high-per-⟨canoe⟩
b. kʰámé-è-mɨ́-ːnɛ̀ cámémɨ́ɨ́ne 'airplanes'
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.

MEANING	SINGULAR		DUAL OR PLURAL	
a. 'drum'	kʰʉ́ːmʉ̀ʉpà	cúúmuba	kʰʉ́mʉ̀ʉpáːnɛ̀	cúmubááne
b. 'lemon'	ʧámáːɾàpà	llámáárabɑ	ʧámáɾàpáːnɛ̀	llámárabááne
c. 'shed'	núːhʉ̀ʉkpà	núújuwa	núhʉ̀ʉkpáːkʰʉ̀ʉ	núju**w**áácu
			núhʉ̀ʉkpáːnɛ̀	núju**w**ááne
d. 'auditorium'	pʰìʔkʲʰáːβɛ̀hà	pihcyáávejɑ	pʰìʔkʲʰáβɛ̀háːnɛ̀	pihcyávejááne
e. 'pill'	tʰàːpóhɨ̀	taabójɨ	tʰàpóhíːkʰʉ̀ʉ	tabójɨ́ɨ́cu
			tʰàpóhíːnɛ̀	tabójɨ́ɨ́ne
f. 'washboard'	nìˣtʲʰʉ́kpà	nijtyúwa	nìˣtʲʰʉ́kpáːnɛ̀	nijtyúwááne

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 tsʰɨ́ːmɛ́nɛ̀ (ɨ́jtsɨ́ɨ́méne) 'his child'
self child

b. ɨ́ː tsʰɨ̀ɨ́mɛ̀ (ɨ́ɨ́tsɨ́ɨ́me) 'his children'
self children

(63) a. tʰáˣ tsʰɨ̀ːmɛ́nɛ̀ (tájtsɨ́ɨ́méne) my child
my child

b. áː tsʰɨ̀ɨ́mɛ̀ (ɑ́ɑ́tsɨ́ɨ́me) my children
my children

Note the long vowel of the first syllable of /tsʰɨːmɛ/ 'children'. In 62a and 63a this is phonetically [ɨː]; 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 [ː] and sometimes [ːˀ]

becomes [ʔ]. Example 64 illustrates the latter: 64a and b show that the root has a long vowel; this alternates with a glottal stop in the imperative in 64c:

(64) a. ù̀ːhɛ̀ (uúje) ‘to see’ (nonfinite tone)
see
b. úːhɛ̀-tʰɛ́-ːpɛ̀ (úújetéébe) ‘He went to see.’
see-go.do-⟨SgM⟩
c. t-úʔhɛ̀-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 the coda being filled by /ʔ/.[27]

In table 8.4, page 242, consider the length of ɛ̀ː- ‘that (medial)’. This length is suppressed when followed by a heavy syllable, as created by -ːkʰù̀ ‘duIn’, by -(ʔ)hì ‘plural’, or by a classifier bearing length such as -ʔaːmɨ ‘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, -(ː)ɾɛ̀ ‘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-nɛ̀-ːɾɛ̀/ (all-⟨ø⟩-only) (páneére) ‘all (things)’
b. /tí-ːpʲɛ̀-ɾɛ̀/ (that-⟨SgM⟩-only) (dííbyere) ‘only he’
c. /ímíʔ-ɾɛ̀/ (good-only) (ímíhye) ‘only good’

[26] There seems to be a tendency to end the pronouns with a heavy syllable followed by a light syllable ($\bar{\sigma}\breve{\sigma}$).

[27] It 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 -(ː)kʰù̀ ‘dual’.

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-mè-ːɾɛ̀ (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, ˀ or ː, (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 -tʰɯ 'source' is not aspirated, namely when it follows the classifier -tsʰi ⟨place⟩: á-tsʰì-ˀtʲɯ́-β$\overset{\text{H}}{\text{a}}\overset{\text{L}}{\text{a}}$ (thm-⟨place⟩-sou-rpt-rem) 'from that place (long ago, it is said)'. We do not know why.

Chapter 3

Tone

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. à:-nɛ̀ máˣʧʰò-:pɛ̀ (Aane májchoóbe.) 'He ate that.'
b. á:-nɛ̀ máˣʧʰò-:pɛ̀ (Áane májchoóbe.) 'Then he ate.'

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

(67) a. á:nù̱ ò:ʔí:pʲɛ̀ (áánu oohííbye) 'This one (SgM) is a dog.'
b. á:nú̱ ò:ʔí:pʲɛ̀ (áánú oohííbye) 'his dog'

Further consider ìmì '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) tí-:pʲɛ̀ᴳ ímì (dííbye ími) 'his goodness'
that-⟨SgM⟩ good

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

(69) ímí òó (Ími 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. ó ì̲mí̲-ʔì (Ó imíhi.) ‘I am good.’ or
I be.good-⟨t⟩ ‘I am in good health.’
b. ímì̲-ːpʲɛ̀ (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 ıí (bisyllabic[1]) 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 ɨʔβɛ̗̀tʰɛ (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.

[1] See section 2.2.

Figure 3.1 The relationship of tone and syllabification

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): $\overset{L}{\sigma}\text{:} \longrightarrow \overset{L\ H}{\sigma\sigma}$ /#(…$\overset{T}{\sigma}$)_$\overset{L}{\sigma}$##[a]

Final
Low Tone Split (FLTS): $\overset{L}{\sigma}(\text{:}) \longrightarrow \overset{L\ H}{\sigma\sigma}$ /#((…$\overset{H\ T}{\sigma}$)σ)_##

[a] # indicates word boundaries and ## phrase boundaries.

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:

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:

$$[_{\text{tonal phrase}} \quad NP_{\text{possessor}} \quad \text{Ⓖ} \quad N_{\text{head}} \ ]$$

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:

$$\#[\sigma \quad \sigma \quad (X) \qquad]_{\text{StatVerb}} \quad \#$$

$$\Updownarrow$$

$$\#[\overset{H}{\sigma} \quad \overset{H}{\sigma} \quad (X) \quad ʔ \quad]_{\text{PredAdj}} \quad \#$$

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 i$\overset{L}{\text{mi}}$a 'of good quality (proper, right, righteous, just,…)'.[2] In 71 it is a predicate adjective:

(71) ím$\overset{L}{\text{i}}$áʔ tì-:pʲè. (ím$\overset{L}{\text{i}}$á díbye.) 'He is good.'
good that-⟨SgM⟩

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.[3]

[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

	WATCH	DEER	STORK	CHICKEN
lexical	nɯˀpa	ni:βɯkpa	nǒˀkʰo	kʰaɾ̀akʰa
isolation	nɯ̀ˀpà nuhba	ní:βɯ̀kpà níívuwa	nòˀkʰò nohco	kʰáɾàkʰà cáraca
plural	nɯ́ˀpà-mɯ̀ núhbamu	ní:βɯ́kpà-mɯ̀ níívúwamu	nòˀkʰó-mɯ̀ nohcómu	kʰáɾàkʰá-mɯ̀ cáracámu
dim	nɯ́ˀpá-kpɯ̀ núhbáwu	ní:βɯ́kpá-kpɯ̀ níívúwáwu	nòˀkʰó-kpɯ̀ nohcówu	kʰáɾàkʰá-kpɯ̀ cáracáwu
my-__	tʰà ɲɯ́ˀpà tañúhba	tʰá nì:βɯ́kpà tániivúwa	tʰá ɲòˀkʰò táñohco	tʰá kʰáɾàkʰà tácáraca
my-__-pl	tʰá ɲɯ̀ˀpá-mɯ̀ táñuhbámu	tʰá nì:βɯ́kpà-mɯ̀ tániivúwamu	tʰá ɲòˀkʰó-mɯ̀ táñohcómu	tʰá kʰáɾàkʰá-mɯ̀ tácáracámu

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 -Ⓛmɯ ‘plAn’ imposes a low tone on the preceding syllable; it does so following nɯ̀ˀpà ‘watch’[4] and ní:βɯ̀kpà ‘deer’ but not following nǒˀkʰò ‘stork’ and kʰàɾ̀akʰà ‘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 -kpɯ̀ ‘diminutive’ has a lexically marked low tone. The underlying form is really -kpɯ̀ɯ̀, 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 nǒˀkʰo ‘stork’ and kʰaɾ̀akʰa ‘chicken’ do not conflict with the low tone of -kpɯ̀ ‘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.
   Consider the form for ‘my stork’. Because the genitive tone should dock on the final syllable of the possessor when the head is bisyllabic, we would expect it to do so in this case. However, this tone and the noun’s

[4] 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 ájtyúmɨtúrónáa ó waajácú múha teene méénune.
tí:.pʲè.kʰè ò áˣ.tʲʰɯ́.mí.tʰɯ́.ɾó.ná.à
him I not.see

ó kpà:.há.kʰɯ́ mɯ́.ʔà tʰè:.nè mé:.nɯ̀.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:

a.	σ	⟶	$\overset{L}{\sigma}$	/ _# or _##	(any category)
b.	σ	⟶	$\overset{L}{\sigma}$	/ _$\overset{L}{\sigma}$##	(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 llíhyomútsi.
mà^{x}ʧ^{h}ó-mɛ́ ʧíʔ^{j}ò-múʦ^{h}ì MEDIAL 'Mother and
eat-⟨AnPl⟩ mother-⟨DuM⟩ father[5] eat.'

b. Majchóme.
mà^{x}ʧ^{h}ó-mɛ̀ FINAL 'They eat (bread).'
eat-⟨AnPl⟩

Examples 74 and 75 are similar:[6]

(74) a. Awákunúúbé llihíyo.
àkpák^{h}ʉ̀nʉ́-ːpɛ́ ʧìʔí-jò MEDIAL 'Father yawns.'
yawn-⟨SgM⟩ father-frs

b. Awákunúúbe.
àkpák^{h}ʉ̀nʉ́-ːpɛ̀ FINAL 'He yawns.'
yawn-⟨SgM⟩

(75) a. Ícyoocáré tsaábe.
ík^{jh}òːk^{h}á-ɾɛ́ ʦ^{h}àːpɛ̀ MEDIAL 'Only now does
now-only come-⟨SgM⟩ he come.'

b. Tsaabe ícyoocáre.
ʦ^{h}àːpɛ̀ ík^{jh}òːk^{h}á-ɾɛ̀ FINAL 'Only now does
come-⟨SgM⟩ now-only he come.'

If the word is a noun, the final two syllables may bear low tone. For example, pronounced in isolation, the final tones of níːβʉ̀kpà 'deer' and pátsɨ^{x}k^{h}à 'female adolescents' are due simply to FDLT. By contrast, FDLT only affects the final tone of òβáʔʦ^{h}à '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.

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

[6]PLTS discussed below in section 3.7.1, does not apply in 74b because of the lexically marked low tones of $\overset{L}{\text{à}}$kpak$^{h}\overset{L}{\text{ʉ}}$nʉ- 'yawn'.

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:

$$\sigma \longrightarrow \overset{\text{H}}{\sigma}$$

Figure 3.3 Default high tone DHT

This is illustrated in the tone derivations of úmɛ̀ʔɛ̀, níːβʊ̀ʊ̀kpà, and màˣʧʰò in figure 3.4:

```
umehe   tree       ni:vuwa   deer       majcho   to eat
: : :               :  : :                L   :   nonfinite
: L L   FDLT        :  L L   FDLT         :   L   FDLT
H : :   DHT         H  : :   DHT          :   :
: : :               :  : :                :   :
úmehe 'tree'       ní:vuwa 'deer'        majcho 'food'
```

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 with 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-tʰɛ́-ːpɛ́ mʊ̀ʊ̀ˣtʰá-ʔì 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.

to indicate a tone imposed by a suffix on its host's final or penultimate syllable; this and "blocking" are explained below.)

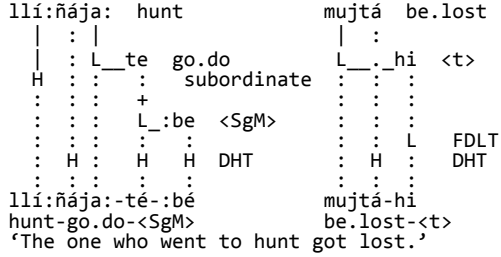


Figure 3.5 TD: llííñájaatéébé mujtáhi

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 má^{x}ʧ^{h}ò-t^{h}é-mè-βà^{x}, ú́mɛ̀ʔɛ́-ːnɛ̀-ʔáɲɛ̀, and níːβú́kpà-ú́βù-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.)

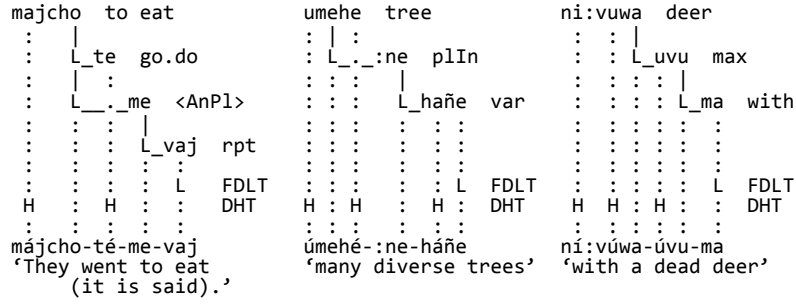


Figure 3.6 TD: májchotémevaj, úmehéénehάñe, níívúwaúvuma

Consider the tone derivation of ɨ́ʔβɛ̀t^{h}é-ʦ^{h}ò-t^{h}é-ɾò-ːpɛ̀ in figure 3.7. (PLTS will be discussed below.)

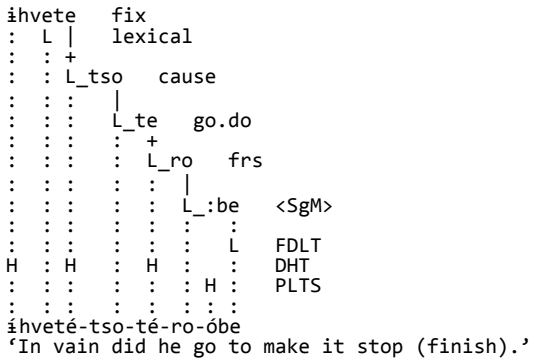


Figure 3.7 TD: ɨhvetétsotéroóbe

Note how the cyclical addition of suffixes affects the tone:

1. The Ⓛ of -Ⓛ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 -Ⓛtsʰo.)
2. The Ⓛ of -Ⓛtʰɛ 'go to do' docks on the host's final syllable. The Ⓛ of -Ⓛtsʰo does not block the Ⓛ of -Ⓛtʰɛ because the Ⓛ of -Ⓛtsʰo has not docked (as just explained).
3. The Ⓛ of -Ⓛɾo 'frustrative, contraexpectation' is blocked by the Ⓛ of -Ⓛtʰɛ.
4. The Ⓛ of -Ⓛ:pɛ ⟨SgM⟩ docks. The Ⓛ of -Ⓛɾo 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 Ⓛ of -Ⓛ◯βa 'come to do' may not dock because of the root's lexically marked low on the initial syllable: L̲ a:ʔɨjɛ '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 ɨ̀ʔβɛ̀tʰɛ (ɨhvéte) 'to stop doing', for the first syllable of the noun òβaʔtsʰa (ovátsa) 'male adolescent', and for the first syllable of the suffix -kpʉ̀(ɯ) (-wu(u)) '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 úmɛ́ʔɛ̀-βʉ̀, úmɨ̀ʔɛ́-βʉ̀, and nòʔkʰó-kpʉ̀ in figure 3.8:

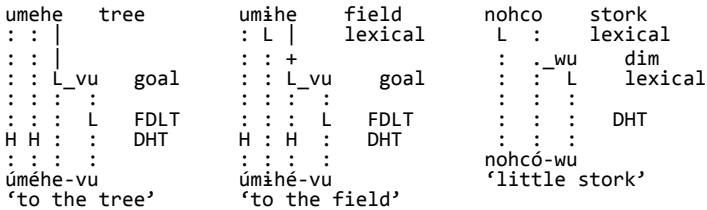


Figure 3.8 TD: úméhevu, úmɨhévu, nohcówu

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 Ⓛ 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., àkpakʰʉ̀nɯ (áwacúnu[8]) 'to yawn'; see the tone derivations of àkpákʰʉ̀nʉ̀ and ákpàkʰúnʉ̀ in figure 3.9:

[8]This orthographic form is given with nonfinite tone.

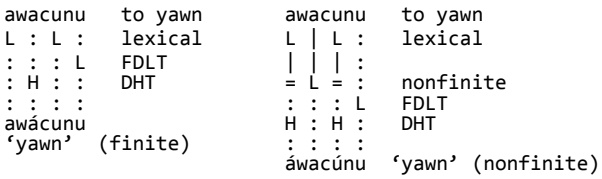


Figure 3.9 TD: awácunu, áwacúnu

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 ɯ̄niɯ '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 Ⓖ ɯ̄níù̱-ɾì (tá úníuri) 'at my side'
tí-ːpʲɛ́ Ⓖ ɯ̄níù̱-ɾì (dííbyé úníuri) 'at his side'

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

(77) tʰá mɯ̄náà-ˣpʰì (támúnáajpi) 'my countryman'
tʰá mɯ́náà-ˣpʰì (támunáajpi) 'my enemy'

[9]There are not many of these. Some of them are: amāna (ámánaá) 'porpoise'; ǎˣʧʰɯʔōːɯ (ajchúhóóu) 'flashlight'; páːpɛ (báábeé) 'father-in-law', e.g. (ábáábeé) 'my father-in-law', (dííbyé baabe) 'his father-in-law'; pāˣkʰɯ (bájcuú) 'bone'; pāˣkʲʰɛ (bájkyeé) 'root'; pɛ̄pɛ (béébeé) 'new one (SgM)'; kʰātʰɯ (cáátuú) 'sweet potato'; kʰāːni (cáánií) 'father'; kʰātsʰo (cátsoó) 'grater, spices, wasp (that makes a grater-like nest)'; kʰōːmi (cóómií) 'town'; ɛ̄pa (éébaá) 'container (drum, box,…)'; ɪ̄tsɨ (ɨdsɨɨ) 'self's daughter'; ɪ̄kʲʰāːβɛ̀ (ícyááveé) 'decoration'; ɪ̄ˣkʲʰo (íjcyoó) 'nest'; ɪ̄ˣtʲʰɛ (íjtyeé) 'self's ones (AnPl)'; ɪ̄ʧi (íllií) 'self's son'; ɪ̄ːmʲɛ (íímyeé) 'self's aunt', e.g. (dííbyé iímye) 'that one's (SgM) aunt'; ɪ̄ɲɛ (íñeé) 'this (thing)'; ɪ̄kpa (íwaá) 'this slab-like thing'; ɪ̄tsɨ (ɨdsɨɨ) 'his daughter'; ɪ̄ʔtɛ (ɨhdeé) 'before, ahead of', e.g. (táɨhdye) 'before me'; māːni (máánií) 'tobacco paste'; (ˣ)kʰātʰɯ ((j)cáátuú) 'writing', e.g. (dííbyéj caátu); ʔɯ̄mɨ (húmɨɨ) 'face'. There are also some pronouns that have lexically marked high tone: āʧɛ (áálleé) 'that one (SgF)'; āmʲɛ (áámyeé) 'this one (SgF)'; āːti (áádií) 'that one (SgM)'; āːnɯ (áánu) 'this (SgM)'; ātʲʰɛ (áátyeé) 'those (few)'.

[10]That is, the genitive tone should dock on the head's first syllable because it is trisyllabic, but it can not do so because this syllable already has a tone, namely the lexically marked high tone.

t^{h}á m$\overset{H}{\text{ú}}$náà-^{x}p^{h}ì-k^{jh}è (támúnáájpikye) ‘my countryman-objAn’
t^{h}á m$\overset{G}{\text{ú}}$náà-^{x}p^{h}ì-k^{jh}è (támunáájpikye) ‘my enemy-objAn’

The noun k$^{h}\overset{H}{\text{a}}$:nì ‘father’ has a lexically marked high tone on the first syllable.

(78) k$^{h}\overset{H}{\text{a}}$:nìí (cáánií) ‘father’
k$^{h}\overset{H}{\text{a}}$:nímù̱ts^{h}ì (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 k$^{h}\overset{H}{\text{a}}$:ni, but it is blocked by the lexically marked high tone; this explains why the possessor bears high tone in example 79:[11]

(79) a. t^{h}á: Ⓖ k^{h}á:nì (táácáánií) ‘my father’
b. tí: Ⓖ k^{jh}á:nì (díícyáánií) ‘your father’
c. í: Ⓖ k^{jh}á:nì (íícyáánií) ‘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 Ⓛ on an adjacent syllable. Is this also true of a lexically marked *high* tones? Do they also block the docking of adjacent Ⓛ? The tone derivations of má:nì-má-ɾé-hù̱k^{h}ò and ámánà-mú-ɾé-hù̱k^{h}ò in figure 3.10 show that a lexically marked high tone does not block the docking of Ⓛ on an adjacent syllable.

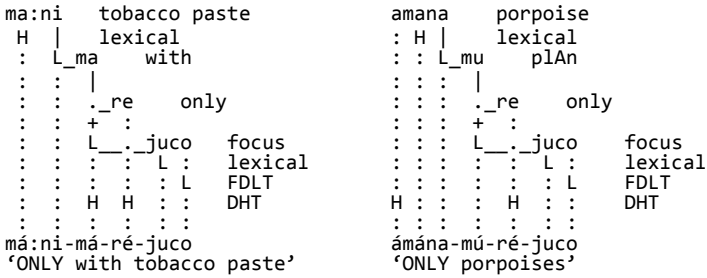


Figure 3.10 TD: máánimáréjuco, ámánamúréjuco

[11] However, this is not always the case, as seen in the following example:
tí:tʃé Ⓖ ^{x}k^{h}a̲:nì (díílléj caáni) ‘her father’
mú̱:ʔá Ⓖ ^{x}k^{h}a̲:nímú̱ts^{h}ì (múúháj caanímútsi) ‘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:

$$\begin{array}{llll} \sigma & (\sigma & (\sigma)) &]_V\# \\ \Updownarrow & & & \\ \overset{L}{\sigma} & (\sigma & (\sigma)) &]_N\# \end{array}$$

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 ájtyumɨ́ táábóóbeke.

b. Ó ájtyumɨ́ taabóóbeke.

ó á^{x}t^{jh}ùmɨ́-ʔì { a. t^{h}á^{S}:pó-:pɛ̀ / b. t^{h}á^{N}:pó-:pɛ̀ doctor-⟨SgM⟩ } -k^{h}ɛ̀ -objAn

I see-⟨t⟩

'I saw { a. him doctoring.' (subordinate) / b. the doctor.' (nonfinite) }

In 80a the Ⓛ of -Ⓛ:pɛ ⟨SgM⟩ is delinked by the Ⓛ of -Ⓛk^{h}ɛ 'objAn'. In 80b the Ⓛ of -Ⓛ:pɛ ⟨SgM⟩ is blocked by the nonfinite low tone on the root's initial syllable.

Compare the tone derivations of the finite verbs t^{h}ʉ́k^{h}ɛ́βɛ̀ts^{h}ó-ʔì and t^{h}ʉ́k^{h}ɛ́βɛ́ts^{h}ò-:pɛ̀ in figure 3.11 with those of the nonfinite forms t^{h}ʉ́k^{h}ɛ̀βɛ́ts^{h}ò, t^{h}ʉ́k^{h}ɛ̀βɛ́ts^{h}ò-ʔà:mì, and t^{h}ʉ́k^{h}ɛ̀βɛ́ts^{h}ò-:pɛ̀ 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.)

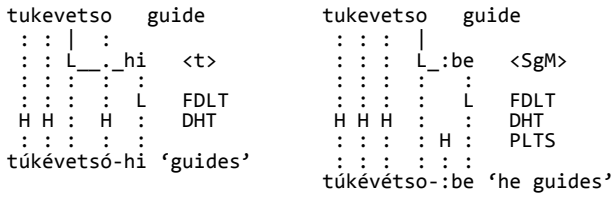


Figure 3.11 TD: túkévetsóhi, túkévétsoobe

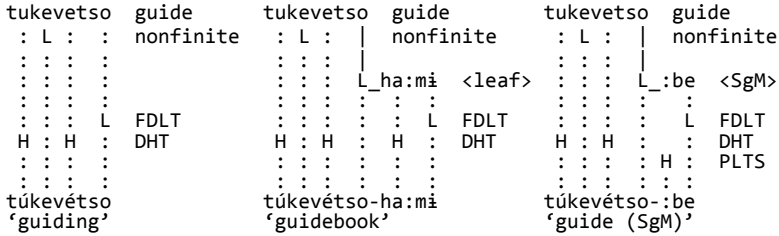


Figure 3.12 TD: túkevétso, túkevétsoh*aa*mɨ, túkevétsoobe

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) ɯ́.mɛ̀.ʔɛ̀ (úmehe) 'tree'
ɯ́.mɛ́.ʔɛ́.kʰò.pà (úméhécob*a*) '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:

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).[12]

3.7.1 Penultimate low tone split

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

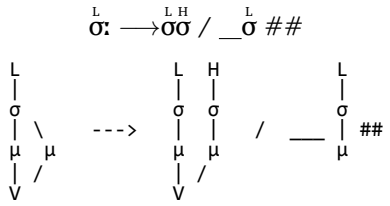


Figure 3.14 Penultimate Low Tone Split (PLTS)

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.

PLTS is illustrated by the tone derivations of ʧámàáɾà and màˣʧʰó-βà-ːpɛ̀ in figure 3.15:

```
llama:ra                majcho   eat
  : :  :                 |   :
  : L  L   FDLT          L___._va   come.do
  H :  :   DHT           :   :  |
  : :H :   PLTS          :   :  L_:be   <SgM>
  : :: :                 :   :  :   :
llámaára   'lemon'       :   :  :   L   FDLT
                         :   H  :   :   DHT
                         :   :  : H :   PLTS
                         :   :  : : :
                        majchó-va-ábe ##  'he came to eat'
```

Figure 3.15 TD: llámaára, majchóvaábe

In 82a the first vowel of kʰùːmɯ̀ '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. Cuumu ó ájtyumɨ́hi.

b. Ó ájtyumɨ́ cúmu.

a. kʰùːmɯ̀ ó áˣtʲʰùmɨ́-ʔì
drum I saw-⟨t⟩
b. ó áˣtʲʰùmɨ́-ʔì kʰùmɯ̀
I saw-⟨t⟩ drum

} 'I saw the drum.'

83a shows that the classifier -ʔaːmi ⟨leaf⟩ has a long vowel (one that does not split in the antepenult); however, when the long vowel occurs in the penult, as in 83b, it splits:

(83) a. tʰé-ʔàːmɨ́-hɨ̀ (téhaamɨ́jɨ) 'those (leaves, papers, books,…)'
b. tʰé-ʔàámɨ̀ (téhaámɨ) 'that (leaf, paper, book,…)'

The long vowel of ɨːhɯ '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. ɨ̀ɨ́hɯ̀ /ɨːhɯ̀/ (ɨɨ́ju) 'horse'
b. ɨ́ːhɯ̀mɯ̀ /ɨ́ːhɯ̀-mɯ̀/ (ɨ́ɨ́jumu) 'horses'
c. ɨ́ːhɯ́mɯ̀kʰɛ̀ /ɨ́ːhɯ́-mɯ̀-kʰɛ̀/ (ɨ́ɨ́júmuke) 'horses (acc)'

The long vowel of ɨhɯːɯ '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. fˣù̲ː-ù (ɬjuú-u) ‘dove’
dove-⟨round⟩
b. fˣù̲ː-mù (ɬjuú-mu) ‘doves’
dove-plAn
c. fˣù̲ː-ù-mú́tsʰì (ɬjuú-u-mútsi) ‘two doves’
dove-⟨round⟩-DuM
d. fˣú́ː-mù-kʰè (ɬjúúmuke) ‘doves (acc)’
dove-plAn-objAn

e. fˣù̲ː-mù tsʰáː-ʔì (Ɬ́juumu tsááhi.) ‘The doves
dove-plAn come-⟨ø⟩ are coming.’

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

(86) a. Oke néébe, “Péjcore …”.
b. Oke neebe péjcore ….
a. òkʰè nè́é́pè pʰéˣkʰòɾè ‘He said to me, “Tomorrow…”
b. òkʰè nè̲ːpè pʰéˣkʰòɾè ‘He told me that tomorrow…’

The singular masculine pronoun /tìːpʲɛ/ (diibye) is really tì- ‘that’ followed by -Ⓛːpɛ ⟨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, tì̲ːpʲè, 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 tìíp̲ʲè (diíbye), as in 3.16c:

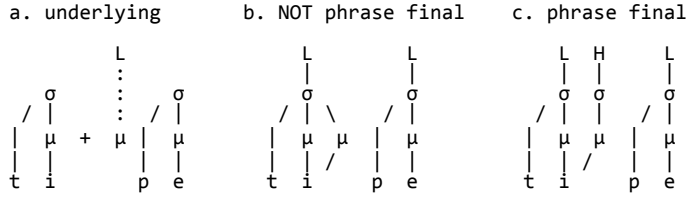


Figure 3.16 The singular masculine pronoun

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

[14] *ɯ́ːhètʰè̲ːpè (úújeteébe) would violate the *LLX constraint.

contrast, in 87b -Ⓛ:pɛ can dock its low tone so PLTS does apply:

(87) a. ʉ́ːh^{L}ɛ́-t^{h}ɛ́-ːpɛ̀ (úújetéébe) 'he goes to inspect'
inspect-go.do-⟨SgM⟩
b. ʉ́ːhɛ́-hɛ̀-ɛ́pɛ̀ (úújéjeébe) 'he returns from inspecting'
inspect-do.come-⟨SgM⟩

Further examples follow:

(88) a. tòːpɛ̀ tʃìʔíjò (Dooobe llihíyo. nonfinal) 'Father eats (meat).'
b. tòópɛ̀ (Dooóbe. final) 'He eats (meat).'

(89) a. àːʔíβɛ̀-ːpɛ̀ tʃìʔí-jò (Aahɬveebe llihíyo. nonfinal) 'Father visits.'
b. àːʔíβɛ̀-ɛ́pɛ̀ (Aahɬveébe. final) 'He visits.'

GLOSS	NONFINAL		FINAL	
'thm-⟨SgM⟩'	àːp^{j}ɛ̀	(*aa*bye)	àáp^{j}ɛ̀	(*aá*bye)
'grater'	k^{h}átsʰòːkpà	(*cá*tsoow*a*)	k^{h}átsʰòókpà	(*cá*tsoów*a*)
'river'	t^{h}ɛ̀ːʔì	(teehi)	t^{h}ɛ̀ɛ́ʔì	(teéhi)
'trail'	hʉ̀ːβà	(juuv*a*)	hʉ̀ʉ́βà	(juúv*a*)

In this section, in the phonetic-phonemic form of examples we have represented the output of PLTS (ìí, ɛ̀ɛ́, àá,…). Elsewhere we generally represent the underlying form (ìː, ɛ̀ː, àː,…) 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.[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.

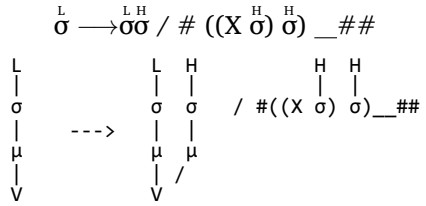


Figure 3.17 Final Low Tone Split (FLTS)

For example, in 90a "house" does not terminate the phonological phrase so FLTS does not apply, in contrast to 90b where it does apply:[16]

(90) a. *Ja* méénuúbe.
b. Méénuube *jaá*.
a. hà mé:nù-:pè
house make-⟨SgM⟩
b. mé:nù-:pè hàá
make-⟨SgM⟩ house
'He makes/made a house.'

Further examples follow:

GLOSS	MEDIAL		FINAL	
this trail	íh^{j}ùu	(íjyu)	íh^{j}ùuú	(íjyuú)
husband	áh^{j}ùu	(ájyu)	áh^{j}ùuú	(ájyuú)
this.SgM	á:nùu	(áánu)	á:nùuú	(ááнuú)
town	k^{h}ó:mì	(cóómi)	k^{h}ó:mìí	(cóómií)
porpoise	ámánà	(*ámána*)	ámánàá	(*ámánaá*)
town-only	k^{h}ó:mí-jè	(cóómíye)	k^{h}ó:mí-jèé	(cóómíyeé)
salt	k^{h}áná:mà	(*cánááma*)	k^{h}áná:màá	(*cánáámaá*)

In the following, compare the singulars, in which the stem final vowel splits, with the plurals, in which it does not.[17]

GLOSS	SINGULAR	PLURAL	POSSESSED PLURAL
our body	mé ^{x}p^{h}ìí	mé ^{x}p^{h}í:-ʔáɲè	múʔá^{x} p^{h}ì:-ʔáɲè
self's voice	í ^{x}k^{jh}èé	í ^{x}k^{jh}é:-ʔáɲè	
self's speech	í ^{ʔ}h^{j}ùuú	í ^{ʔ}h^{j}úu-ʔáɲè	tì-:t^{jh}é ì-^{ʔ}h^{j}úu-ʔáɲè
hunger	áh^{j}àá	áh^{j}á-ʔáɲè	
back	ʔátʃùuú	ʔátʃúu-ʔáɲè	

[16] In 90, the alternation between mé:nùu:pè (nonfinal) and mé:nùuúpè (final) also illustrates PLTS.

[17] Note 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.

Example 91a results from FLTS, 91b results by the addition of the classifier -Ⓛɯ ⟨spherical⟩, and 91c results by the subsequent addition of the pluralizer -ːnɛ 'plIn':

(91) a. kʰáːtʰɯ̀ɯ́ (cáátuú) 'sweet potatoes (collective)'
b. kʰáːtʰɯ̀-ɯ̀ (cáátuu) 'sweet potato (singular)'
c. kʰáːtʰɯ̀-ɯ́-ːnɛ̀ (cáátuúne) '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 mέːníː-ːβʲɛ̀-ːpɛ̀ in figure 3.18:

```
me:ni
 :  |
 :  L_:vye   become
 :  |    |
 :  =    L_:be   <SgM>
 :  :    :   :
 :  :    :   L    FDLT
 H  H    :   :    DHT
 :  :    : H :    PLTS
 :  :    : : :
mé:ní-:vye-ébe 'He became a pig.'
```

Figure 3.18 TD: mέέníívyeébe

The Ⓛ that -Ⓛːpɛ ⟨SgM⟩ docks on the end of -Ⓛːβɛ 'become' is treated as adjacent to the Ⓛ that -Ⓛːβɛ docks on the end of mɛːni 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.)

3.9 The tones of isolated words ("citation forms")

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, kʰʉ̀nì 'arrowroot', kpàˣpʰì 'man', tʰàˣkʰʉ̀ 'agouti', nòʔkʰò 'stork', màˣʧʰò 'eat, food', tìtʲʰɛ̀ 'they (AnPl).

Theoretically, trisyllabic words might have the following tones: HHH, HHL, HLH, HLL, LHH, LHL, 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', kʰáná:nàá 'salt'.
4. The remaining two possibilities occur: HLL (e.g., ní:βʉ̀kpà 'deer', ʉ́mɨ̀ʔɛ̀ 'field') and LHL (e.g., kpa^{L}ˣkʰóʔɛ̀ '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, /kʰo^{H}:mi/ [kʰó:mìí] (cóómií) '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.[19]

(92) a. ó màˣʧʰó-ʔì (Ó majchóhi.) 'I eat'.
b. ó máˣʧʰo̲-tʰé-ʔì (Ó májchotéhi.) 'I go to eat'.
I eat-go.do-⟨t⟩

(93) a. ó à:ʔɨβé-ʔì (Ó aahɨvéhi.) 'I visit.
b. ó à:ʔɨβɛ̲-tʰé-ʔì (Ó aahɨvetéhi.) 'I go to visit'.
I visit-go.do-⟨t⟩

-Ⓛ◯mɛ ⟨AnPl⟩ imposes a low tone on its host's penult; for example, maˣʧʰo 'to eat' (as in 92a) becomes mà̲ˣʧʰó-mɛ̀ 'they ate'. The stem imi-paˣʧʰo 'to fix' becomes ímípà̲ˣʧʰó-mɛ̀ 'they fix'. In 94 the low tone of -Ⓛ◯mɛ coincides with that of -mɛ̲i 'reflexive'[20] and in 95 it coincides with the low tone of -Ⓛtʰɛ 'go to do'.

(94) íˣtsʰá-mɛ̲í-mʲɛ̀ (Íjtsámeímye.) 'They think.'
think-r/p-⟨AnPl⟩

(95) à:ʔɨβɛ̲-tʰé-mɛ̀ (Aahɨvetéme.) 'They go visit.'
visit-go.do-⟨AnPl⟩

The suffix -kpʉ̲(ɯ) (-wu(u)) '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 -kpʉ̲(ɯ) is not realized word finally, as in 96 and 97:

(96) ʧɛ́:ʔò-kpà[21] (llééhowa) 'door'
ʧɛ́:ʔó-kpá-kpʉ̀ɯ (llééhówáwu) 'little door'
door-⟨slab⟩-dim

(97) kpàˣkʰó-ʔɛ̀ (wajcóhe) 'flower-bearing tree'
kpàˣkʰó-ʔɛ́-kpʉ̀ɯ (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 -mɛ̲i 'reflexive, passive' is fused with the preceding root.

[21]The morpheme ʧɛ́:ʔò- is a bound root. It only occurs with -kpà ⟨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 ɯmɨ̀ʔɛ 'planted field' bears a lexically marked low tone which, when -kpʉ̀(ɯ) 'diminutive' follows, remains low, as in 98:

(98) ɯ́mɨ̀ʔɛ́-kpʉ̀ (ɯ́mɨhéwu) '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 ɨˣtsʰa-mɛ̀i (think-r/p-) 'think' bears a lexically marked low tone and this blocks the docking of the Ⓛ of -Ⓛtʰɛ 'go to do':

(99) ó ɨˣtsʰá-mɛ̀í-tʰɛ́-ʔì (Ó ɨ́jtsámeítéhi.) 'I go to think.'
I think-r/p-go.do-⟨t⟩

Likewise, consider the result of suffixing Ⓛ◯-βa 'have' to kʰaɾ̀akʰa 'chicken' in 100:

(100) ó kʰárà̱kʰá-mʉ̀ɾ-βá-ʔì (Ó cáracámuváhi.) 'I have chickens.'
I chicken-plAn-have-⟨t⟩

The Ⓛ of Ⓛ◯-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', -kʰo̰ːkʰa (-cooca) 'when', -Ⓛkʰi (-ki) 'purpose', -Ⓛhíːβà (-jɨ́va) 'deny', and others, seem to impose a high tone on their host's initial syllable. For example, in 101, initial syllable of kʰʉ́kpàkʰà '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 mechéméturóhi.
ímíʔ mʉ̀ʔà mɛ̀ kʰʉ̀kpà-kʰà̱
good we.ex SAP sleep-CF

tsʰáʔ mʉ̀ʔà mɛ̀ ʧʰémé-tʰʉ̀-ɾó-ʔì
not we.ex SAP be.ill-neg-frs-⟨t⟩
'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 #$\overset{H}{\text{σ}}$...-Ⓛt$^{h(j)}$ɯ (-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 -hí:βà 'deny', as in 102. The verb $\overset{L}{\text{a}}$kpak$^{h}\overset{L}{\text{ɯ̀}}$nɯ 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 -Ⓛ:pɛ ⟨SgM⟩. (See also the tone derivation of figure 3.20, page 81.)

(102) $\overset{H}{\text{a}}$kpák^{h}ɯ̀nú-:p$\overset{L}{\text{ɛ}}$-hí:βà (*áwácunúúbejɨ́va*) '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 3.2 Where tone conflicts arise

The host has a low tone on the			and a suffix contributes low tone
ANTEPENULT	PENULT	FINAL	
		$\overset{L}{\text{σ}}$	-$\overset{L}{\text{σ}}$...
	$\overset{L}{\text{σ}}$	σ	-Ⓛσ...
$\overset{L}{\text{σ}}$	σ	σ	-Ⓛ◯σ...

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 Ⓛ of a suffix because doing so would violate the *LLX constraint. In tone derivations it is represented by "+" as follows:

```
|
+          blocked
L__suffix
:
:
```

For example, -Ⓛtʰɛ or -Ⓛmɯtsʰi normally docks a low tone on the host's final syllable. However, when added to à̰kpakʰṵ̀nɯ '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 àkpákʰù̀nú-tʰé-ʔì in figure 3.19:

(103) a. ó à̰kpákʰṵ̀nú-tʰé-ʔì (ó *awácunútéhi*) 'I go to yawn.'
I yawn-go.do-⟨t⟩

b. à̰kpákʰṵ̀nú-mútsʰì (*awácunúmútsi*) 'They (DuM) yawn.'
yawn-⟨DuM⟩

```
awacunu   to yawn                umehe   tree
L : L |   lexical                : : |
: : : +                          : : L_wa   <slab>
: : : L_te   go.do               : : :  |
: : : +  :                       : : :  ._re   only
: : : L__._hi   <t>              : : :  +  :
: : : :  :  :                    : : :  L__._juco   focus
: : : :  :  L   FDLT             : : :  :   :  L :   lexical
: H : H  H  :   DHT              : : :  :   :  : L   FDLT
: : : :  :  :                    H H :  H   H  : :   DHT
awácunú-té-hi  'go to yawn'      : : :  :   :  : :
                                 úméhe-wá-ré-juco  'ONLY a board'
```

Figure 3.19 TD: *awácunútéhi*, *úméhewáréjuco*

In the tone derivation of ú́mɛ́ʔɛ̀kpá-ɾɛ́-hṵ̀kʰò figure 3.19 the Ⓛ of -Ⓛ◯hṵ̀kʰo 'focus' is blocked by the Ⓛ of -Ⓛkpa ⟨slab⟩.

[22]There 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.

In the tone derivation of máˣʧʰó-βá-mɛ̀-hɨ́ː(βà) in figure 3.20, the Ⓛ of -Ⓛ◯mɛ (-me) is blocked by the Ⓛ of -Ⓛ◯βa.[23]

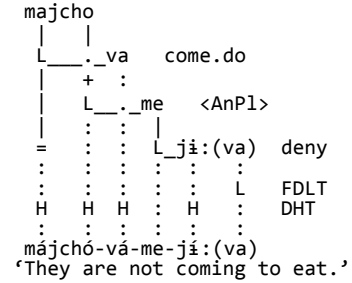


Figure 3.20 TD: m*á*jchó*vá*mejɨ́ɨ́(v*a*)

Compare the tone derivations of máˣʧʰò-tʰé-ʔì, máˣʧʰò-hé-ʔì, and máˣʧʰò-βà-ːpɛ̀ in figure 3.21, in which no blocking occurs, with those of máˣʧʰò-tʰé-ːpɛ̀ and màˣʧʰó-βá-mɛ̀ in figure 3.22, in which blocking does occur:

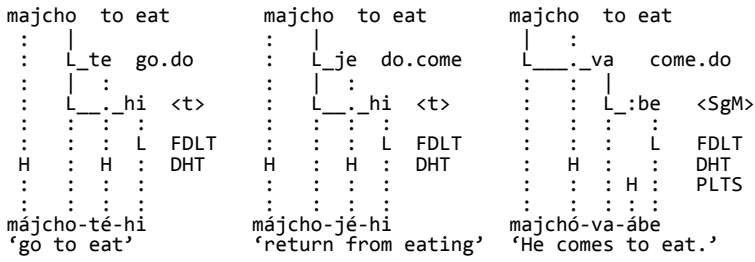


Figure 3.21 TD: m*á*jchotéhi, m*á*jchojéhi, majchó*vaá*be

[23]Also #Ⓗ…-Ⓛ◯hiː(βa) docks a high tone on the first syllable or, to put it another way, it delinks the Ⓛ placed on the first syllable by -Ⓛ◯βa, so this syllable becomes high tone by default. We return to this in section 3.11.2.3 below.

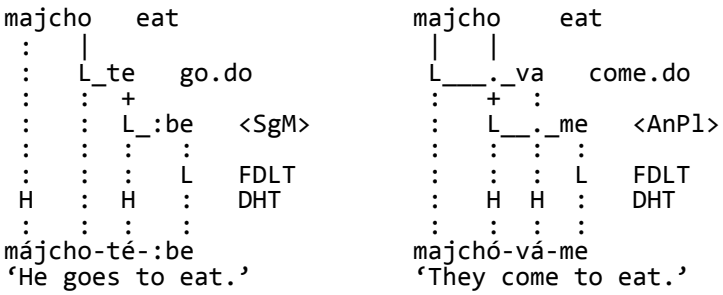


Figure 3.22 TD: májchotéébe, majchóváme

(Note that PLTS does not apply in the derivation of má^{x}ʧ^{h}ò-t^{h}é-ːpɛ̀ in figure 3.22 because (1) the Ⓛ of -Ⓛt^{h}ɛ 'go to do' blocks the docking of the Ⓛ of -Ⓛːpɛ, so (2) the penult is not low, so does not satisfy the conditions for PLTS.)

Compare the tone derivations of tómá^{x}k^{h}ò-t^{h}é-ːpɛ̀-βà^{x} and ɨ́^{ʔ}βɛ̀t^{h}é-t^{h}ɛ̀-ːpɛ́-βà^{x} in figure 3.23. In the first -Ⓛt^{h}ɛ 'go to do' docks its Ⓛ and thus on the next cycle -Ⓛːpɛ ⟨SgM⟩ can not dock its Ⓛ because it would be adjacent to the previously docked low, creating a violation of the *LLX constraint. By contrast, in the second derivation the Ⓛ of -Ⓛt^{h}ɛ does not dock because of the root's lexically marked low tone. Thus the Ⓛ of -Ⓛt^{h}ɛ is not present to block the docking of the Ⓛ of -Ⓛːpɛ.

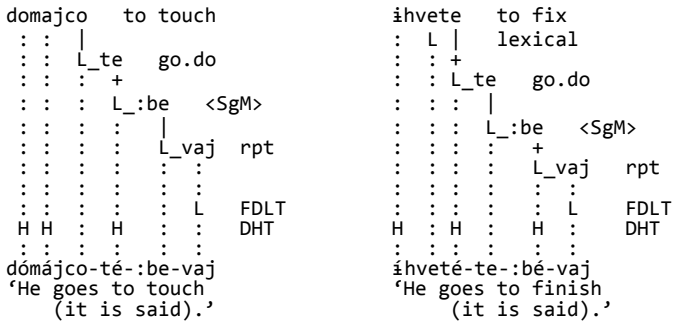
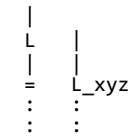


Figure 3.23 TD: dómájcotéébevaj, ɨ́hvetéteebévaj

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 Ⓛ can be docked without violating the

*LLX constraint.[24] 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:



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] (-Ⓛːpɛ ⟨SgM⟩, -Ⓛtʃɛ ⟨SgF⟩, -Ⓛmɯtsʰi ⟨DuM⟩, -Ⓛmɯpʰɨ ⟨DuF⟩ and -Ⓛ◯mɛ ⟨AnPl⟩) delink conflicting tones; see the derivation of máˣtʃʰó-tsʰò-ːpɛ̀ in figure 3.24 and those of ímípáˣtʃʰó-tʰɯ̀-mɯ́tsʰì and ímípàˣtʃʰó-βá-hɯ́kʰò:-mɯ́tsʰì in figure 3.25:

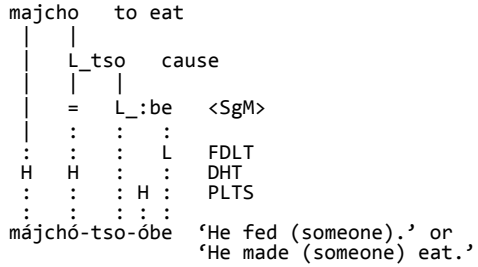


Figure 3.24 TD: májchótsoóbe

[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.

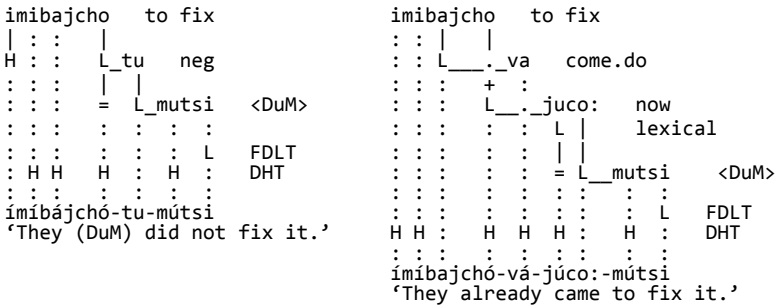


Figure 3.25 TD: ímíbájchótumútsi, ímíbajchóvájúcoomútsi

However, the Ⓛ of the person markers is blocked by—not delinked by—the Ⓛ of a relocation suffix. For example, consider the derivations of figure 3.22. The first shows the Ⓛ of -Ⓛtʰɛ 'go to do' blocking the Ⓛ of -Ⓛ:pɛ ⟨SgM⟩. The second shows the Ⓛ of -Ⓛ◯βa 'come to do' blocking the Ⓛ of -Ⓛ◯mɛ ⟨AnPl⟩. However, contrary to this generalization, in example 104 the Ⓛ of -Ⓛhɛ 'do after coming' is delinked by the Ⓛ of -Ⓛ:pɛ ⟨SgM⟩:

(104) máˣʧʰó-hɛ̀-:pɛ̀ (Májchójeébe.) 'He returned from eating.'
eat-do.come-⟨SgM⟩

3.11.2.2 Delinking by -Ⓛdi 'animate', -Ⓛke 'objAn', -Ⓛki 'purpose', -Ⓛma 'with', -Ⓛte 'go.do' and -Ⓛdu 'like'

The suffixes -Ⓛti 'animate', -Ⓛkʰɛ 'objAn', -Ⓛkʰi 'purpose', -Ⓛma 'with', -Ⓛtʰɛ 'go to do' and -Ⓛ◯tɯ 'like' delink conflicting tones. This is illustrated by -Ⓛti and -Ⓛma in the tone derivations of ní:βúkpá-kpúù-tì and úmé?ɛ́kpá-kpúù-mà in figure 3.26:

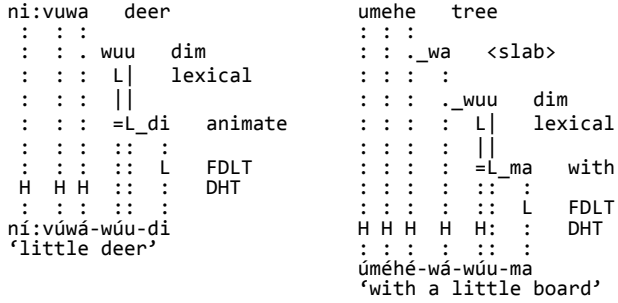


Figure 3.26 TD: ní:vúwáwúudi, úméhéwáwúuma

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

We do not understand the tones of kpà?áɾó-ù̀βú-tù̀ ‘like my deceased mother’. The derivation of figure 3.27 suggests that -tɯ ‘like’ delinks the Ⓛ of -Ⓛɯβɯ ‘maximum’:

```
waharo    mother
 L : |    lexical
 : : L_uvu    max
 : : | | :
 : : = L_._du   like
 : : : : :  :
 : : : : :  L   FDLT
 : H H : H  :   DHT
 : : : : :  :
waháró-uvú-du  ‘like my deceased mother’
```

Figure 3.27 TD: waháróuvúdu

However, this assumes -Ⓛ◯tɯ contrary to the tone we have posited for ‘like’ following nouns, namely -Ⓛtɯ, as in kʰé꞉mè-tù̀ ‘like an old man’ and the examples of 1080, page 424.

3.11.2.3 Delinking by #Ⓗ…-jɨɨ(vɑ) ‘deny’

In figure 3.20 above, we saw that #Ⓗ…-Ⓛ◯hɨ꞉(βa) ‘deny’ docks a high tone on the first syllable, imposing itself where there was already a Ⓛ (in this case contributed by -Ⓛ◯βa). 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.

#Ⓗ…-Ⓛhɨ꞉(βa) ‘deny’ also delinks conflicting low tones, particularly those of a preceding person classifier subject, as illustrated in the tone derivations of ʧé꞉né-꞉pè-hɨ́꞉βà and á꞉ʔɨ́βéβá-꞉pè-hɨ́꞉βà in figure 3.28:

```
lle:ne   to eat (fruit)
  |  |
  |  L_:be   <SgM>
  |  |   |
  =  =   L_jɨ:va   deny
  :  :   :  :  :
  :  :   :  :  L   FDLT
  H  H   :  H  :   DHT
  :  :   :  :  :
llé:né-:be-jɨ:va
‘He did not eat (fruit)’
```

```
a:hɨve   to visit
L  | :   lexical
|  + :
|  L_._va   come.do
|  : :  |
|  : :  L_:be   <SgM>
|  : :  |   |
=  : :  =   L_jɨ:va   deny
:  : :  :   :  :  :
:  : :  :   :  :  L   FDLT
H  H H  H   :  H  :   DHT
:  : :  :   :  :  :
á:hɨvé-vá-:be-jɨ:va
‘He did not come to visit.’
```

Figure 3.28 TD: lléénéébejɨɨva, á:hɨvévᵓábejɨɨva

Ⓗ…-Ⓛhɨ:(βa) ‘deny’ even delinks the Ⓛ of person markers which are not adjacent to its Ⓛ. This case arises with -Ⓛmɯtsʰi ⟨DuM⟩, -Ⓛmɯpʰɨ ⟨DuF⟩ and even -Ⓛ◯mɛ ⟨AnPl⟩. Such cases confirm that delinking is a morphophonemic process depending on the identity of the morphemes involved, not simply a phonological process driven by the *LLX constraint, as is the case for blocking.

3.11.2.4 Delinking by -Ⓛσ ‘future’

The morpheme -Ⓛσ ‘future’ can delink the Ⓛ of -Ⓛtʰɛ ‘go to do’, as seen in the derivation of ómáˣʧʰó-tʰɛ̀-é-ʔì in figure 3.29:[26]

```
o majcho   to eat
:  :   |
:  :   L_te   go.do
:  :   |  |
:  :   =  L_:   future (delinks)
:  :   :  |
:  :   :  L_._hi   <t>
:  :   :  :    :
:  :   :  :    L   FDLT
H  H   H  :    :   DHT
:  :   :  : H  :   PLTS
:  :   :  : :  :
ó majchó-te-é-hi  ‘I will go to eat.’
```

Figure 3.29 TD: ó májchóteéhi

[26]Frequently 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.

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

-Ⓛro ∼ -Ⓛra (-ro ∼ -ra) ‘frustrative, contraexpectation’ (frs) delinks the Ⓛ of the first syllable of -Ⓛ◯hʉ̱́kʰo: as demonstrated by the tone derivations of má^{x}ʧʰó-tsʰò-tʰé-hʉ̱́kʰó:-ro̲-:pè and ɨ́ʔβètʰé-tsʰò-hé-hʉ́kʰò:-rá̲-ʔì in figure 3.30:

```
majcho  to eat                      ɨhvete  to finish
 :   |                              :  L |  lexical
 :   L_tso  cause                   :  : +
 :   |   |                          :  : L_tso  cause
 :   =   L_te  go.do                :  : :   |
 :   :   |  :                       :  : :   L_je  do.come
 :   :   L__._juco: already         :  : :   |  |
 :   :   :  :  L |  lexical         :  : :   L__._juco:  already
 :   :   :  :  | |                  :  : :   :  :  L |   lexical
 :   :   :  :  = L__ro  frs         :  : :   :  :  | |
 :   :   :  :  : |   |              :  : :   :  :  = L__ra  frs
 :   :   :  :  : =   L_:be  <SgM>   :  : :   :  :  : |   :
 :   :   :  :  : :   :   :         :  : :   :  :  : L___._hi  <t>
 :   :   :  :  : :   :   L  FDLT    :  : :   :  :  : :   :  :
 H   H   :  H  H H   :   :  DHT     :  : :   :  :  : :   :  L  FDLT
 :   :   :  :  : :   : H :  PLTS    H  : H   :  H  H :   H  :  DHT
 :   :   :  :  : :   : : :          :  : :   :  :  : :   :  :
májchó-tso-té-júcó:-ro-óbe          ɨhveté-tso-jé-júco:-rá-hi
‘He already went to make them eat   ‘(Someone) already returned
 (but without succeeding).’          from trying to make (someone)
                                     finish (but not succeeding)’
```

Figure 3.30 TD: májchótsotéjúcóóroóbe, ɨhvetétsojéjúcoorá̱hi

In the derivation of ɨ́ʔβètʰé-tsʰó-hè-rá̲-ʔì in figure 3.31, -Ⓛro ∼ -Ⓛra ‘frustrative’ delinks the low tone of -Ⓛhè ‘return from doing’ (do.come):

```
ɨhvete   to finish
:  L |   lexical
:  : +
:  : L_tso   cause
:  : :   |
:  : :   L_je   do.come
:  : :   |  |
:  : :   =  L_ra   frs
:  : :   :  |  :
:  : :   :  L__._hi   <t>
:  : :   :  :  :  :
:  : :   :  :  :  L   FDLT
H  : H   H  :  H  :   DHT
:  : :   :  :  :  :
ɨ́hveté-tsó-je-rá-hi
‘return from failing to make (someone) stop’
```

Figure 3.31 TD: ɨ́hvetétsójerá̲hi

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: á:nɯ ‘this (SgM)’, kʰá:ni ‘father’, amána ‘porpoise’, kʰó:mi ‘town’, má:ni ‘tobacco paste’, áˣtʃʰɯʔó:ɯ ‘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, -Ⓛkʰɛ ‘objAn’ does not dock its Ⓛ following á:nɯ ‘this (SgM)’ and íˣtʲʰɛ ‘self’s ones (AnPl)’:

(105) a. á:nɯ̀ (this.SgM *áánuú*) ‘this one (SgM)’
b. á:nɯ́-kʰɛ̀ (this.SgM-objAn *áánúke*) ‘to this one (SgM)’
c. í-ˣtʲʰé-kʰɛ̀ (self-⟨AnPl⟩-objAn *íjtyéke*) ‘to self’s (AnPl)’

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] -Ⓛ◯hi:(βa) normally docks a Ⓛ on the penult of a nominal host. (The pattern for verbs is different.) When this Ⓛ coincides with a lexically marked Ⓗ, it seems that the Ⓛ is “bumped” to the following syllable. This is illustrated in kʰó:mi̱-hí:βà ‘not a town’ and kʰá:ni̱-hí:βà ‘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: …σ̲(σ(σ))# (just as for nonfinite verbs). This delinks conflicting lexically marked tones.

   For more details about imperatives, see section 14.1.1.

[27] There is some evidence that bumping also applies to -ɾɛ ‘only’.

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. mâ^{x}ʧʰó-ːpè-kʰè (májchóóbeke) 'the one (SgM) who ate-objAn'
b. mâ^{x}ʧʰó-ʧè-kʰè (májchólleke) 'the one (SgF) who ate-objAn'
c. mâ^{x}ʧʰó-mɛ̀-kʰè (májchómeke) 'the ones (AnPl) who ate-objAn'

The suffix -Ⓛkʰɛ 'objAn' imposes a low tone on the preceding syllable, delinking the low tones docked by -Ⓛːpɛ ⟨SgM⟩ in 106a and -Ⓛʧɛ ⟨SgF⟩ in 106b. In 106c we expect -Ⓛ◯mɛ ⟨AnPl⟩ 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 úːhɛ̀tʰé-ɾó-ʧè-kʰè is a relative clause, with high tone on the first syllable as expected:

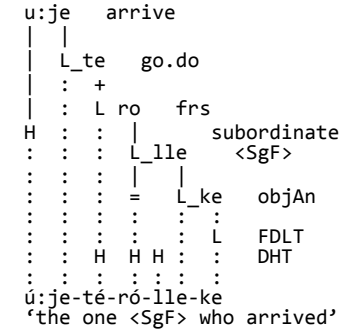


Figure 3.32 TD: úújetérólleke

The derivation of 107 is given in figure 3.33.

(107) dsɨjɨvétsómeke
[tsɨ̂hípβé-tsʰó]-mɛ̀-kʰè 'the ones who were killed-objAn'
die-caus-⟨AnPl⟩-objAn

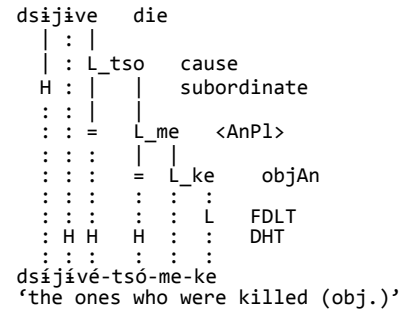


Figure 3.33 TD: dsɨjɨvétsómeke

Examples 108 and 109 contrast a sentence's main verb with the corresponding verb in a relative clause:

(108) a. mà^{x}ʧ^{h}ó-mɛ̀ (Majchóme.) 'They are eating (bread).'

b. mà^{S}^{x}ʧ^{h}ò-mɛ̀ (májchome) 'those who are eating (bread)'

(109) a. ʧ^{h}ɛ́mɛ̀-ːpɛ̀ (Chémeébe.) 'He is sick.'

b. ʧ^{h}^{S}ɛ̀mɛ̀-ːpɛ̀ (chémeebe) 'the one (SgM) who is sick'[28]

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. kpá^{x}k^{h}ò-ʔɛ̀ (wájcohe) 'tree that is flowering' or 'The tree is flowering.'

b. kpà^{N}^{x}k^{h}ó-ʔɛ̀ (wajcóhe) 'a flower(ing) tree'

(111) a. níːβà-ì (níívai) 'river that is flowing' or 'The river is flowing.'

b. nìːβá-ì (niivái) 'a flowing river'

(112) a. néːβà-ʔɛ̀ (néévahe) 'tree that bears fruit' or 'The tree is bearing fruit.'

b. nɛ̀ːβá-ʔɛ̀ (neeváhe) 'fruit tree'

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

(113) mà^{S}^{x}ʧ^{h}ò-ːpɛ̀ òːmí-hʉ̀k^{h}óː-ʔì (Májchoobe oomíjucóóhi.)
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 -Ⓛ◯βa 'come to do' and—presumably—resists the imposition of the subordination tone.

(114) a. M*á*jchotéébé oomíjucóóhi.
b. M*a*jchóv*aa*be oomíjucóóhi.

$$\left\{\begin{array}{l}\text{a. } \overset{S}{\text{m}}\text{à}^{x}\text{ʧ}^{h}\text{ò-t}^{h}\text{é-ːpɛ́} \\ \quad \text{eat-go.do-⟨SgM⟩} \\ \text{b. } \text{mà}^{x}\text{ʧ}^{h}\text{ó-βà-ːpɛ̀} \\ \quad \text{eat-come.do-⟨SgM⟩}\end{array}\right\} \begin{array}{l}\text{ò:mí-hʉ̀k}^{h}\text{ó:-ʔì} \\ \text{return-now-⟨t⟩}\end{array}$$

'The one who $\left\{\begin{array}{l}\text{a. went} \\ \text{b. came}\end{array}\right\}$ 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

-k^{h}a	(-c*a*)	'counterfactual conditional'
-k^{h}$\overset{L}{\text{o}}$ːk^{h}a	(-cooc*a*)	'when'
-ʔ$\overset{L}{\text{a}}^{x}$ʧ^{h}iː(h^{j}ɯ)	(-h*a*jchííjyu ∼ -h*a*jchí)	'if (conditional)'
-$\overset{L}{\text{i}}$h^{j}ɯ	(-ijyu)	'when (at that time)'
-Ⓛk^{h}i	(-ki)	'purpose'
-na$\overset{L}{\text{a}}$ːk^{h}a	(-n*áaáca* ∼ -n*aa*)	'while'
-ne^{a}	(-ne)	⟨event⟩ or ⟨ø⟩
-Ⓛt$^{h(j)}$ɯ	(-tu)	'negative'
-Ⓛhíːβà	(-j*ɨɨva*)	'deny'

[a]Generally a case marker or -Ⓛhɨ(βa) 'deny' would follow -nɛ.

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: #Ⓗ…-suffix. This possibility, while descriptively adequate, seems stipulative and unmotivated.

[29]It is tempting to include -Ⓛ◯ʔtɯ (-hdu) 'similar' in this list but it follows nonfinite verbs, not subordinate clauses.

(b) It could be a low tone prefix (Ⓛ-) that forces the initial syllable to bear high tone: #Ⓛ-σ́…-suffix. (The host's first syllable would have to bear high tone to avoid violating the *LLX constriant.)
This suggestion can be immediately rejected. Recall that o 'I', ɯ 'you', i 'self', and mɛ 'SAP' are proclitics that form a tonal phrase with the following verb. If Ⓛ occurred between the proclitic and the verb, the proclitic should necessarily bear high tone. (Otherwise it and the following Ⓛ- would violate the *LLX constraint.) However, this is not the case, as seen in mɛ̀ máˣʧʰò-kʰì (SAP eat-pur mem*á*jchoki) 'in order that we eat' and ì máˣʧʰó-nɛ̀-mà (self eat-⟨event⟩-with im*á*jchónem*a*) '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 -Ⓛkʰi 'purpose' would be [[$_{S[+subordinate]}$…] __] (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 ímípáˣʧʰò-kʰì 'to fix' and máˣʧʰó-mɛ̀-kʰɛ̀ 'the ones (AnPl) who eat-objAn' (from example 106c) are given in figure 3.34. In the latter, -Ⓛ◯mɛ ⟨AnPl⟩ can not dock its low tone because this would displace the high tone that marks subordination.[30]

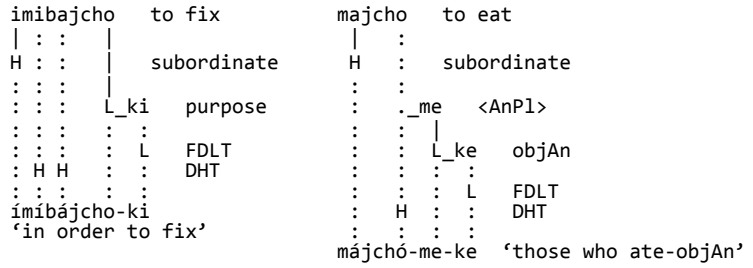


Figure 3.34 TD: ímíbájchoki, májchómeke

Finally, -nɛ ⟨event⟩—in contrast to -Ⓛ◯nɛ ⟨ø⟩ (thing) and the -nɛ ⟨n⟩ (discussed in section 13.2)—seems to delink any preceding low tones except the root's lexically marked tones; see the derivation of tsɨ́híβé-tsʰó-í-jó-né-ʧì:ʔʲɛ̀ in figure 3.35:

[30] Alternatively, if the ⟨AnPl⟩ suffix is taken as -Ⓛmɛ, then it would be delinked by -Ⓛkʰɛ.

```
dsɨjɨve   to die
  : : |
  : : L_tso   cause
  : : |   :
  : : |   ._i   fut
  : : |   : |
  : : |   : L_ro   frs
  : : |   : |  :
  : : =   : =  ._ne   <event>
  : : :   : :  :  :
  : : :   : :  :  ._lli:hye   because
  : : :   : :  :  :   L   :   lexical
  : : :   : :  :  :   :   L   FDLT
  H H H   H H  H  H   :   :   DHT
  : : :   : :  :  :   :H  :   PLTS
  : : :   : :  :  :   ::  :
dsɨjɨvé-tsó-í-yó-né-lliíhye
'because he wanted to kill (him)'
```

Figure 3.35 TD: dsɨ́jɨ́vétsóíyónélliíhye

3.12.2 The tones of proclitics

When the pronouns o 'I', ɯ '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 ʦ^{h}$\overset{H}{a}$ʔ '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, -Ⓛ◯ʔi ⟨t⟩ docks its Ⓛ on the proclitic. Likewise, in 117b, presumably -Ⓛ◯hɯ̱$\overset{L}{k}$^{h}o '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 -nɛ ⟨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) mɛ̀ kʰáʔkʰɯ́ˣtsʰó-nɛ̀ (mecáhcújtsóne) ‘after you
SAP believe-⟨event⟩ have believed’

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

(116) Tsá o májchotétú(ne).

tsʰa̋ʔ ò máˣʧʰò-tʰé-tʰɯ́-(nɛ̀) ‘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. ò́ tó:-ʔì (O dóóhi.) ‘I eat meat.’
I eat-⟨t⟩
b. ò́ pʰé-hɯ̀kʰó:-ʔì (O péjucóóhi.) ‘I go now.’
I go-now-⟨t⟩
c. ó́ pʰé-hɯ́kʰò-ó-ʔì (Ó péjúcoóhi.) ‘I will go now.’
I go-now-fut-⟨t⟩

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

(118) a. ᴸò né:-ʔì: (O nééhií.) ‘I say.’
I say-⟨t⟩
b. ó nᴸɛ́-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) ó́ máˣʧʰò-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 kpaˣpʰi ‘man’ and ni:βɯkpa ‘deer’ in 120:

(120) a Wajpi úmɨváhi.
b. Níívuwa úmɨváhi.
a. kpàˣpʰì
b. níːβʉ̀ʉkpà
} úmɨ̀βá-ʔì ‘The {a. man / b. deer} escapes.’

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: $\overset{N}{\sigma}(\sigma(\sigma))\#$. (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 (Ⓖ) 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 Ⓖ can stretch back to the end of the modifier, but when the head is longer than two syllables, Ⓖ cannot stretch back across the boundary so ends up on the head’s initial syllable.
3. Classifiers place a low tone (Ⓒ) 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, Ⓒ docks on the classifier’s first syllable. That is, when the classifier (which we claim to be the head) is short, Ⓒ can stretch back to the end of the modifier, but when the classifier is longer than two syllables, Ⓒ 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.

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[32] (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 3.4 Words with exceptional tone

	POSS'R	POSS'D	POSS'R	POSS'D
	my	X	his/her	X
	H	HL	HL	HL
mother /tsʰi:hɯ/	tʰá: tsʰí:hɯ̀		tí:pʲɛ̀ˣ tsʰí:hɯ̀	
wife /tʰa:pa/	á tʲʰá:pà		tí:pʲɛ̀ tʰá:pà	
	H	HL	HH	LL
father-in-law /pa:pɛ/	á pá:pɛ̀		tí:pʲɛ́ pà:pɛ̀	
father /kʰ̈a:ni/	tʰá: kʰá:nì		tí:pʲɛ́ˣ kʰà:nì	
husband /tʰahɨ/	á tʲʰáhɨ̀		tí:ʧɛ́ tʰàhɨ̀	

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 (kʰ̈a:ni), 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., kpàˣpʰì 'man', ʧì:ʔíjò 'male child/parent', kpàʧɛ̀ 'woman', kpàʔárò 'female child/parent'. The high frequency of such words allows them to remain exceptional, since frequent use reinforces words, making them resistent 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 -Ⓛtɯ '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 Ⓛ is not docked (blocked by a preceding Ⓛ), quite unexpectedly the Ⓛ of -Ⓛtɯ does not dock; see 121b:

   (121) a. ú́mɛ́ʔɛ̀-kpá-tɯ̀ (úméhewádu) 'like a slab-like thing'.
   tree-⟨slab⟩-like

   b. kpa$^{\overset{L}{x}}$k^{h}ó-ʔɛ́-tɯ̀ (wajcóhédu) 'like a flowering tree'
   flower-⟨tree⟩-like

   It is as though the classifier's Ⓛ is both present (to block the Ⓛ of -Ⓛtɯ) 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*: …σ̆^{N}(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*: [$_{\text{modifier}}$…σ̆^{G}]#[$_{\text{noun stem}}$σ(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, kpàʧɛ́ː-mʉ̀ʉ 'women' from kpaʧɛ 'woman' and -mɯ 'plural'.

GENDER: masculine, feminine. For example, máˣʧʰò-ʧɛ̀ 'She ate.' from maˣʧʰo 'eat' and -Ⓛʧɛ ⟨SgF⟩.

ANIMACY: animate, inanimate. For example, màˣʧʰó-mɛ̀ 'They (AnPl) ate.'

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

(122) a. íkʲʰᴸóːkʰá-ɾɛ̀ (ícyoocáre) 'right now'
now-only

b. tʰá-hʊ́ʊkʰò-ːpɛ̀ (Tájúcoóbe.) 'He cries now.'
cry-now-⟨SgM⟩

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).

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 fˣtsʰámɛ̀í-ʔì (Ó ɬjtsámeíhi.) 'I think.' (finite)

b. fˣtsʰ$\overset{N}{\text{a}}$mɛ́ì (ɬjtsaméi) '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:[1]

$$\begin{array}{ll} [_{\text{finite verb}}\ldots & \sigma\ (\sigma\ (\sigma))\ ] \\ \Updownarrow & \\ [_{\text{nonfinite verb}}\ldots & \overset{L}{\sigma}\ (\sigma\ (\sigma))\ ] \end{array}$$

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 -ʔáɲɛ̀ 'various' rather than with one of the other nominal pluralizers. For example, the nonfinite form of maˣʧʰo 'to eat' may refer to food or to eating, as in $\overset{N}{\text{ma}}$ˣʧʰóʔáɲɛ̀ 'various types of food'.[2]

Additional examples follow.

(124) a. ʉ́ɪ̀kpá:pò-:pɛ̀ (Úwááboóbe.) 'He teaches.'
teach-⟨SgM⟩

b. $\overset{L}{\text{ʉ́ɪ̀}}$kpá:pò-:pɛ̀ (uwááboóbe) 'the teacher'
teaching-⟨SgM⟩

[1] This is a *lexical* rule and the nonfinite tone is lexically marked. Tentatively, the V and N subscripted to the left braces represent [+verbal, +finite, −nominal] and [−verbal, −finite, +nominal], respectively.

[2] This is written maɟchóháñe but is arguably a genitive construction: $\overset{N}{\text{ma}}$ˣʧʰó Ⓖ ʔáɲɛ̀. Its head, ʔáɲɛ̀, 'various' refers to collections and thus "pluralizes."

(125) a. kʰúkpà-:pɛ̀ (Cúwaábe.) 'He is sleeping.' (finite)
b. kʰ$\overset{L}{\text{ú}}$kpá-:pɛ̀ (cuwáábe) 'one belonging to a sleep-⟨SgM⟩ clan[3] (nonfinite)'

(126) a. tʰá:pò-:pɛ̀ (Táábooóbe.) 'He is treating.'
b. tʰ$\overset{L}{\text{a}}$:pó-:pɛ̀ (taabóóbe) 'the doctor' cure-⟨SgM⟩

Compare 127a, in which kʰìmó:βɛ̀ (citation form) is a verb with 127b, where it is nonfinite:

(127) a. Mítyane áátye kímoovéhi.
b. Ijcyáné kimóóvé téhulle.
a. mítʲʰà-nɛ̀ á:tʲʰɛ̀ kʰímò-:βé-ʔì 'Those (people) became much-⟨ø⟩ those be.sad-sIn-⟨t⟩ very sad.'

b. ìˣkʲʰá-né Ⓐ kʰ$\overset{N}{\text{ì}}$mó-:βé[4] tʰé-ʔùʊ̀ʧɛ̀ 'There is be-⟨ø⟩ sadness-sIn that-⟨yonder⟩ sadness there.'

The nonfinite low tone delinks any lexically marked tones with which it conflicts. Compare $\overset{L}{\text{a}}$kpákʰ$\overset{L}{\text{ú}}$nù 'to yawn', the verbal form in 128, with ákp$\overset{N}{\text{a}}$kʰúnù '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.
á:nù $\overset{L}{\text{a}}$kpákʰ$\overset{L}{\text{ú}}$nú-ʔì 'This (one) is yawning.'
this yawning-⟨t⟩

(129) Keeme íhya tsájucóó áwacúnuma.
kʰɛ̀:mɛ̀ íʔʲà tsʰá-hùkʰó:-ʔì ákp$\overset{N}{\text{a}}$kʰúnù-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., màˣʧʰò is both 'eat' (finite) and 'eating, food' (nonfinite). The difference is usually apparent in trisyllabic words, e.g., ákʰù:βɛ̀ 'to sit down' (finite) versus àkʰú:βɛ̀ 'seat' (nonfinite). (See also example 132 below). However the difference is not apparent

[3]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]This is appositive to the -nɛ̀ subject cliticized to the verb. The sentence's structure is: Verb-⟨subject⟩ Ⓐ Subject Locative.

in some trisyllabic verbs that bear lexically marked low tones. For example, $\overset{L}{\text{ɪ}}\overset{?}{\text{h}}^{\text{j}}$ɯ́βà 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 táímibájcho.

è:-nè mɯ̀ɯ:ɾá tʰá Ⓖ ímɪ̀pá^{x}ʧʰò
that-⟨ø⟩ confirm my fixed.one
'That is the one I fixed.' (lit. 'That is my fixed one.')

(131) Eene muurá ó ímíbajchóne.

è:-nè mɯ̀ɯ:ɾá [ó ímípà^{x}ʧʰó]-nè
that-⟨ø⟩ confirm I fix -⟨ø⟩
'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 ɨ́ɨteébe.
b. Turúúvehe ɨ́ɨteébe.

a. [tʰɯ̀ɾɯ́-ːβè]-ʔè
b. [tʰɯ̀ɾɯ́-ːβè]-ʔè
fall-sIn -⟨tree⟩
} ɨ́ːtʰè-ːpè look-⟨SgM⟩

a. 'He looks at the tree that is falling.'
b. 'He looks at the fallen tree.'

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. ò kpàhʲɯ̀-mɛ̀-^{x} (o wájyumej) 'the ones I love'
I love-⟨AnPl⟩-voc (relative clause)

b. tʰá kpàhʲɯ́-^{x}tʰɛ̀-^{x} (táwajyújtej) 'my loved ones'
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:[5]

(134) a. kpa̰ːhakʰɯ (waajácu) 'knowledge, know'
b. -ʔaːmɨ (-háámɨ) '⟨leaf⟩ (paper, book,…)'
c. kpa̰ːhákʰɯ̀ʔáːmɨ̀ (waajácuháámɨ) 'book'

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

(135) tʰá Ⓖ ʔo̰ˣtsʰɨ̰-kpá-mɨ́ːʔò[6] (táhójtsɨwámɨ́ɬho) '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 mɯ́nàà 'people, fellow countryman',[7] may be compounded with a nonfinite verb, as illustrated in 136 with kpákʰḭmʲɛ́ì 'work, labor':

(136) kpákʰḭmʲɛ́ì mɯ́náà-ˣpʰì (wákimyéi-múnáajpi) 'worker'
working human-⟨SgM⟩

[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 -ʔaːmɨ. Because it refers to concrete objects (as suggested by the gloss) it bears the feature [−abstract]. This feature percolates to the composed word kpa̰ːhákʰɯ̀ʔáːmɨ (134c) so refers to something concrete and, due to 'knowledge', is understood as a book. See section 6.3.4 for further discussion.

[6] The Ⓛ of -Ⓛmiːʔo is blocked by the Ⓛ of -Ⓛkpa.

[7] (Thiesen & Thiesen 1998:191) gives mɯ́nàà as a concrete noun occurring either without a classifier or as one of the following: mɯ́náà-ˣpʰì (masculine singular), mɯ́náà-ʧɛ̀ (feminine singular), mɯ́náà-ˣtʰétsʰì (masculine dual), mɯ́máàˣtʰépʰɨ̀ (feminine dual).

The tone derivation of 136 is as follows:

```
wakimyei   work       munaa   human
 : L  ::   nonfinite   : :|
 : :  ::               : :L_jpi   <SgM>
 : :  ::               : ::   :
 : :  :L   FDLT        : ::   L   FDLT
 H :  H:   DHT         H H:   :   DHT
 : :  ::               : ::   :
wákimyéi               múnáa-jpi  'worker <SgM>'
```

Figure 4.2 TD: wákimyéi múnáajpi

In 137 'judge' is the phrase ímítʲʰúnɛ́ʔhɨ́ ímípáˣʧʰò-múnáːˣpʰí, literally 'bad fixer person':

(137) Ávyéjuube cáyobáávatétsó íwákimyéi-múnáake diityéké ímítyúnéhjɨ́ ímíbájcho múnáájpí úmɨwávú tsane idíllóneri.

Áβʲɛ́hɯ̀-ːpɛ̀ kʰájòpá-ːβà-tʰɛ́-tsʰó-ʔì
reign-⟨SgM⟩ anger-become-go.do-caus-⟨t⟩

[í Ⓖ [kpákʰᴺímʲɛ́ì múnáà]]-kʰɛ̀ tiˡːˡ-tʲʰɛ́-kʰɛ́
self worker human -objAn that-⟨AnPl⟩-objAn

[[[ímí-tʲʰú-né-ʔhɨ́ ímᴺipáˣʧʰò] múnáː-ˣpʰí]
good-neg-⟨ø⟩-pl fix human-⟨SgM⟩

ʰɯ̀mɨ-kpá] -βú tsʰà-nɛ̀ ì tíʧó-nɛ̀-rì
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

[8]See *acúúve-múnaa* 'person responsible for a festival', *ahdó-múnáajpi* 'buyer' *ahdótso-múnáajpi* 'money collector' *aahɨ́ve-múnaa* 'visitors' *állíu-múnaa* 'liar', *añú múnaa* or *añú(-)múnaa* 'hunter, foreigner (lit. person who shoots)', *bañú-múnáajpi* 'person in whom one should not have confidence', *bohdó-múnáajpi* 'person who paddles', *cahcújtso-múnáajpi* 'believer', *cóójɨ́ewa-múnaa* 'column of people who sing by day in a festival', *chemé-múnaa* 'sick person', and so forth.

behaving much like a classifier, there is not consistent evidence for the classifier low tone (©).

Second, it may be that múnàà 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. ɬɨcu túkévéjtsoóbe.
ì:kʰù tʰúkʰéβɛ́ˣtsʰò-:pè 'He directs the game.'
game direct-⟨SgM⟩

b. ɨɨcú-túkevéjtsoóbe
ì:kʰú tʰúkʰɛ̀βɛ́ˣtsʰò-:pè 'referee'
game directing-⟨SgM⟩

(139) a. Obééjámuke téhmeébe.
ᴸópé:há-mù-kʰè tʰɛ́ʔmè-:pè 'He cares for the sheep.'
sheep-plAn-objAn care-⟨SgM⟩

b. obééjámú-tehméébe
ᴸópé:há-mú tʰɛ̀ʔmé-:pè 'shepherd'
sheep-plAn care-⟨SgM⟩

Examples 140 and 141 are like 138b and 139b.

(140) pihcyáávé-túkevéjtsoóbe
pʰᴸíʔkʲʰá-:βé tʰúkʰèβɛ́ˣtsʰò-:pè 'leader of the meeting'
meet-sIn direct-⟨SgM⟩

(141) mɨ́ɨ́né-túkevéjtsoóbe
mí:né tʰúkʰèβɛ́ˣtsʰò-:pè '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.

[9]By 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: [$ø_i$ ì:kʰú tʰ^{S}úkʰɛβɛ́ˣtsʰò]-:pè$_i$. However, such an analysis is not possible for 139b because 'care' has a low tone on its initial syllable.

(142) obééjámú tehmé múnáajpi

òpɛ́:há-mʉ́ tʰɛ̀ˀmɛ́ mʉ́náà-ˣpʰì ‘shepherd’
sheep-plAn care human-⟨SgM⟩

Example 143is similar to 142:

(143) tsɨɨmé tehmé múnáajpi

tsʰìɨmɛ́ tʰɛ̀ˀmɛ́ mʉ́náà-ˣpʰì
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]

(-)tʰʉ̀ˣkʰénʉ̀ ‘begin’. For example, tʰʉ̀ˣkʰénʉ̀ ‘begin’ is the second of two compounded verbs in 144, while it is an independent verb in 145:

(144) Áánéllii ihjyúvátujkénuúbe.

á:-né-ʧì: ì̲ˀhʲúβá-tʰʉ̀ˣkʰénʉ̀-:pè
that-⟨ø⟩-motive speak-begin-⟨SgM⟩
‘For that reason, he began to speak.’

(145) Áánéllii tujkénuube iíhjyuváne.

á:-né-ʧì: tʰʉ̀ˣkʰénʉ̀-:pè [ì ˢˀìʰʲʉ̀βá]-nè
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 -nɯ ‘cause to have, cause to be’, that is tʰʉ̀ˣkʰé-nʉ̀ (straight-do), or the verbalizer -βɛ ‘become’, that is, ì:hʲɛ́-βɛ̀ (bothersome-become), pʰɛ̀ˣkʰó-βɛ̀ (night-become) ⁽ˣ⁾kʰò:hí-βɛ̀ (day-become).

pʰìβʲɛ̀ ‘desire’ might be cognate with pʰì:βʲɛ̀ ‘grow’, and ultimately with the suffix -Ⓛ◯pʰi ‘excessive’ discussed in section 4.3.6.1.

(-)ì:hʲéβè ‘be bothersome (by doing)’

(146) Meke tá́áííjyévelle.
mè-kʰè tʰá:-í:hʲéβè-ʧè ‘She bothers us (by) crying.’
SAP-objAn cry-bother-⟨SgF⟩

(-)pʰìβʲè ∼ **(-)pʰìβʲénɯ̀** (pivye ∼ pivyénu) ‘desire’:

(147) Ó á́dópivyéhi.
ó átó-pʰìβʲé-ʔì ‘I am thirsty.’
I drink-desire-⟨t⟩

(148) Muha mémájchópívyenúhi.
mɯ̀ʔà mɛ́ máˣʧʰó-pʰíβʲè-nɯ́-ʔì ‘We became hungry.’
we SAP eat-desire-do-⟨t⟩

(-)pʰèˣkʰóβè ‘be tardy (by night), spend the night’

(149) Muha méihjyúvápéjcovéhi.
mɯ̀ʔà mɛ́ ìˀhʲɯ́βá-pʰɛ́ˣkʰò-βɛ́-ʔì ‘We talked all night.’
we SAP talk-night-sIn-⟨t⟩

(-)⁽ˣ⁾kʰò:hɨ́βè ‘be tardy (by day), spend the day’

(150) a. Keeme cúwájcóójɨvéhi.
b. Cóójí hajchótá keeme cuwáhi.
a. kʰè:mè kʰɯ́kpá-ˣkʰó:hɨ̀-βɛ́-ʔì
old.one sleep-day-sIn-⟨t⟩
b. kʰó:hí ʔàˣʧʰó-tʰá kʰè:mè kʰɯ̀kpá-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 tá́áííjyévépéjcóveébe.
ò-kʰè tʰá:-í:hʲé-βɛ-pʰɛ́ˣkʰó-βè-ːpè
I-objAn cry-bother-sIn-night-sIn-⟨SgM⟩
‘He bothers me crying all night long.’

In addition to the free verbs just listed, iˣkʲʰa ‘be’ may follow another verb to indicate ‘habitual’. We regard this as a compound tense in which the preceding verb is marked with ʔ as though it were a predicate complement. See section 5.10.

[11] In example 148 -nɯ, 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) kʰárá̰kʰá-mɯ̀ɯ-βà (cáracámuva) 'have chickens'
chicken-plAn-have

(153) mɨ́á̰mɯ́nàá-ːβɛ̀[13] (mɨ́amúnaááve) 'become people'
people-sIn

(154) tʰàːpá-nɯ̀ɯ̀[14] (taabánu) 'give a woman in marriage'
wife-do

(155) tsɨ́ˣkʰò-hà[15] (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 -βa is farther removed from the root than the inflectional suffix -mɯ.

[13]The tones in isolation are: mɨ́á̰mɯ́nàà 'people'.

[14]The tones in isolation are: /tʰàːpà/ 'wife'.

[15]The tones in isolation are tsɨ̀ˣkʰò '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:

	SINGULAR	MULTIPLE
transitive	sTr	mTr
intransitive	sIn	mIn
stative	sSt	mSt

action versus iteration, and so forth.[17] 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-tʰɯ̀ɯ́ú-ːβɛ̀ (kéhyétuúúve) 'become listless'
have.strength-neg-sIn

úβáˀ-tʰɯ̀ɯ́ú-ːβɛ̀ (úváhtuúúve) 'be dumbfounded'
alert(?)-neg-sIn

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) ʧépò-ɾá-tʰɯ̀ɯ́ú-ːβɛ̀ (lléborátuúúve) 'become deaf'
hear-frs-neg-sIn

kpáhákʰɯ́-ɾá-tʰɯ̀ɯ́ú-ːβɛ̀ (wájácúrátuúúve) 'bewildered, stunned'
know-frs-neg-sIn

4.3.2 Verbs derived from nouns

Verbs are derived from nouns by one of the following suffixes:[18] -ʧɛ 'treat like, regard as', -Ⓛ◯nɯ 'do', -ːβɛ '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 -Ⓛ◯ʧɛ (-lle) 'treat like, regard as' and -Ⓛ◯nɯ (-nu) '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 tsɨ́ɨ́ménélleébe.
ò-kʰɛ̀ tsʰɨ̀ːméné-ʧɛ̀-ːpɛ̀ 'He considers me to be
I-objAn child-regard-⟨SgM⟩ like a child.'

[17] For this reason the Bora dictionary (Thiesen & Thiesen 1998) lists both singular and multiple forms for verbs.

[18] These might be considered noun-incorporating verbs.

4.3.2.2 -nu ‘do’

The suffix -Ⓛ◯nɯ ∼ -ɲɯ (-nu) derives a verb that means ‘to cause to have Φ’ (where Φ is the host’s referent), as illustrated in 159 with tsì:tsɨ́ ‘money’:

(159) Oke dsɨ́dsɨ́nuúbe.
ò-kʰè tsì:tsɨ́-nɯ̀-:pè ‘He caused me to have money.’
I-objAn money-do-⟨SgM⟩

A verb so derived can also mean ‘do something related to Φ’, as illustrated with kʰɯ̀:mɯ̀ ‘drum’ in 160:

(160) kʰɯ̀:mɯ́-nɯ̀-:pè (Cuumúnuúbe.) ‘He played the drums.’
drum-do-⟨SgM⟩

(161) àˣpʰà (*ajpa*) ‘a type of edible grub’
àˣpʰá-ɲɯ̀ (*ajpáñu*)[19] ‘make holes in palm trees for grubs’

(162) àhɨ̀ (*ajɨ́*) ‘a type of small palm’
àhɨ́-nɯ̀ (*ajɨ́nu*) ‘gather the leaves of this type of palm’

The verbalizer -Ⓛ◯nɯ may be added after either a singular or a plural noun. For example, pʰákʲʰɛ̀ɛ́ ‘trap’ is a collective noun referring to fishtraps, not to a single one. When -Ⓛ◯nɯ follows a plural or collective noun, the resulting verb is a multiple action verb (as discussed in section 5.7.2). Thus, pʰàkʲʰɛ́:-nɯ̀ ‘set traps’ is a multiple action verb.

To refer to a single trap, the classifier -hɯ̀ ‘long and hollow’ must be added: pʰákʲʰɛ̀:-hɯ̀ ‘a single trap’. The result is a single action verb: pʰákʲʰɛ̀-hɯ́:-nɯ̀ ‘set a single trap’.

Although -Ⓛ◯nɯ generally derives transitive verbs, in a few cases they are intransitive, as in 163:

(163) à:ʔɨ́-nɯ̀ (home-do *aahɨ́-nu*) ‘to stay at home (intransitive)’
à:ʔɨ́-βɛ̀ (home-sIn *aahɨ́ve*) ‘to go home (intransitive)’

The suffix -Ⓛ◯nɯ may be added to an adjective, in which case it means ‘cause to be’ rather than ‘cause to have’:

(164) ʧʰòˀhʲɯ́-nɯ̀ (*chohjyúnu*) ‘to make smaller’
small-do
àjá-nɯ̀ (*ayánu*) ‘to make smaller or fewer’
small/few-do

[19] Presumably the /a/ that precedes /ɲ/ in àˣpʰá-ɲɯ̀ is a reflex of */ai/ since it palatalizes the nasal that follows; see Aschmann (1993).

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 tsʰɨ́ːmɛ̀nɛ̀ 'child' in 165 and áβʲɛ̀hɯ̀ 'reign' in 166:

(165) ó tsʰɨ́méné-ːβɛ́ (Ó tsɨ́méneevé.) 'I became like a child.'
I child-sIn

(166) Áátyáába ávyéjuuté ávyéjúúbé úníuri iwákímyeíñeri.[20]
á: Ⓖ tʲʰá:pà áβʲéhɯ̀ː-tʰɛ́-ʔì [[áβʲéhɯ́-ːpɛ́ Ⓖ ɯ̀́níɯ̀]-ɾì
my wife reign-become-⟨t⟩ reign-⟨SgM⟩ beside -oblIn

ì kpa̰kʰímʲɛ̀í]-ɲɛ̀-ɾì
self work -⟨ø⟩-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 temɨ pámɨɨ́véhi.
tsʰɯ́ːkʰà tʰɛ̀-mɨ̀ pʰá-mɨ̀-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.
tsʰɯ́ːkʰà tʰá kpa̰hʲámɯ́ pʰá-hà-ːβɛ́-ʔì
already my dress all-⟨shelter⟩-sIn-⟨t⟩
'My dress has already been completed.'

(169) Páábééveébe.
pʰá-ːpɛ́-ːβɛ̀-ːpɛ̀ 'He has become a mature male.'
all-⟨SgM⟩-sIn-⟨SgM⟩

4.3.2.4 -va 'have'

The suffix -Ⓛ◯βa (-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

[20]The root aβʲɛhɯ refers to esteem, honor, glory, or to (the noun) reign; see (Thiesen & Thiesen 1998:45f.).

mɛ́ːnìmɯ̀ (méénimu) ‘pigs’ is the host:[21]

(170) ó mɛ̀ːnímɯ̀-βá-ʔì (Ó meenímuvá.) ‘I have pigs.’
I pig-have-⟨t⟩

The suffix -Ⓛ◯βa ‘have’ behaves like -Ⓛ◯nɯ. 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 -Ⓛ◯nɯ ‘do’:

(171) mɛ̀mɛ́-βà (memé-va) ‘to be named’
name-have
mɛ̀mɛ́-nɯ̀ (memé-nu) ‘to name’
name-do

(172) ɛ̀ˀ-nɛ́-βà (ehnéva) ‘to have things (intransitive)’
that-⟨ø⟩-have
ɛ̀ˀ-nɛ́-nɯ̀ (ehnénu) ‘to cause to have things (transitive)’
that-⟨ø⟩-do

The verbal stems derived by -Ⓛ◯βa ‘have’ may be negated, as in 173:

(173) íˀhʲɯ́-βá-tʰɯ̀ɯ́-ːβɛ̀ (íhjyúvátuúve) ‘become speechless’
mouth-have-neg-sIn

páˣkʰɯ́-βá-tʰɯ̀ɯ́-ːβɛ̀ (bájcúvátuúve) ‘become spineless (weak)’
bone-have-neg-sIn

ʔáʧɯ́-βá-ɾá-tʰɯ̀ɯ́-ːβɛ̀ (hállúvárátuúve) ‘become blind’
eye-have-frs-neg-sIn

4.3.2.5 -jkimei ‘behave like’

The suffix -ˣkʰimɛi (-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 tsʰíːmɛ̀nɛ̀ ‘child’:

(174) Ó tsɨ́ménéjkímeí.
ó tsʰíméné-ˣkʰímɛ̀í-ˀ ‘I behave like a child.’
I child-behave.like-⟨t⟩

[21] The 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 -t*a* 'corresponding to'

-t^{h}a (-t*a*) 'corresponding to (corr)' derives nouns from verbs, as in the following:

(175) níjcyotá*á*be
ní^{x}k^{jh}ò-t^{h}á-ːpɛ̀ 'statue (lit. the one who is moulded)'
mould-corr-⟨SgM⟩

(176) díájcut*a*
tí Ⓖ á^{x}k^{h}ù̀-t^{h}à 'the part given to you'
your give-corr

(177) díw*áá*byut*a*[22]
tí Ⓖ kpá:p^{j}ù̀-t^{h}à
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: -ˀnɛk^{h}ɯ 'result', -ɾiβak^{h}o 'resulting position', -ɾat^{h}ɯ 'not doing', or the prefix t^{h}ɛ- '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 -ˀnɛk^{h}ɯ '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}àtʃáhà- 'sprawl out':

(178) Ó *áá*kityé c*a*llájahnécu.
ó á:k^{h}ìt^{jh}é-ˀ k^{h}àtʃáhà-ˀnɛ́k^{h}ù̀ 'I fell, landing sprawled out.'
I fall-⟨t⟩ sprawl.out-result

The participle in 179 is derived from the verb p^{h}ɨɾɯ- 'exhaust (some quantity)':

(179) Ó majchó pɨ́ruhnécu.
ó mà^{x}tʃ^{h}ó-ˀ p^{h}ɨ́ɾù-ˀnɛ́k^{h}ù̀ 'I ate everything, without
I eat-⟨t⟩ exhaust-result anything left over.'

[22](Thiesen & Thiesen 1998:310) gives the meaning of w*aa*byu (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 ɨ̀βóʔò- ‘to lie face down’:

(180) Éhtsi ts+ɨme ɨ+vóhóɾɨvaco.
ɛ́ʔ-tsʰì tsʰɨ̀ːmɛ̀ ɨ̀ːβóʔó-ɾɨ́βàkʰò
that-⟨place⟩ children lie.face.down-res.pos
‘There are children lying face down over there.’

(181) Ó ájtyumɨ́ ts+ɨmeke éhtsi ɨ+vóhóɾɨvaco.
ó áˣtʲʰù̀mɨ́-ʔì tsʰɨ́ːmɛ̀-kʰɛ̀ ɛ́ʔ-tsʰì
I see-⟨t⟩ children-objAn that-⟨place⟩

ɨ̀ːβóʔó-ɾɨ́βàkʰò
lie.face.down-res.pos
‘I have seen children in that place lying face down.’

A participle derived by -ɾɨ́βàkʰò (-ɾɨvaco) ‘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 ɨ̀ːβóʔó-ɾɨ́βàkʰò ‘lying face down’ modifies kʰù̀kpà ‘sleep’:

(182) Ts+ɨme éhtsíi cuwá ɨ+vóhóɾɨvaco.
tsʰɨ̀ːmɛ̀ ɛ́ʔ-tsʰíì kʰù̀kpá-ʔì ɨ̀ːβóʔó-ɾɨ́βàkʰò
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 -ù̀kʰù̀nɯ ‘sSt’; if the noun is plural, the stative verb must bear the multiple action suffix -ˣkʰàtʲʰɛ ‘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.)

[23]Remarkably, the meaning of ɨ́βóʔìˣkʰátʲʰɛ̀ (ɨ́vóhijcátye) in 184 seems to be the same as that of ɨ̀ːβóʔóɾɨ́βàkʰò (ɨ+vóhóɾɨvaco) in 180 and 181.

(183) a. Éje, *áá*tyétsi téɬvóhoúcunu.

b. Éje, *áá*tyétsi cuwá téɬvóhoúcunu.

a. ɛ́hɛ̀ , á:-tʲʰɛ́tsʰì t̲ʰɛ̲́-íβó?ò-ú́kʰù̲nù̲

b. ɛ́hɛ̀ , á:-tʲʰɛ́tsʰì kʰù̲kpá-?ì t̲ʰɛ̲́-íβó?ò-ú́kʰù̲nù̲

look that-⟨DuM⟩ sleep-⟨t⟩ that-lie.face.down-sSt

'Look, those (dual masculine) sleep lying face down!'

(184) Éje *áá*tye cuwá téɬvóhojcátye.

ɛ́hɛ̀ á:-tʲʰɛ̀ kʰù̲kpá-?ì t̲ʰɛ̲́-íβó?ò-ˣkʰátʲʰɛ̀

look that-⟨AnPl⟩ sleep-⟨t⟩ that-lie.face.down-mSt

'Look! Those 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 -:kʰɯ 'duIn' or -hɨ 'inanimate plural'. Examples follow.

(185) a. Ó *á*jtyumɬ tsá*á*pikye juuváj pɨɨne páɨvóhoou íjyácunúúbeke.

b. Ó *á*jtyumɬ tsá*á*pikye juuváyí páɨvóhoóu.

ó áˣtʲʰù̲mɬ́-?ì tsʰá-:pʰì-kʲʰɛ̀

I see-⟨t⟩ one-⟨SgM⟩-objAn

a. hù̲:βáˣ pʰì̲:nɛ̀ p̲ʰ̲á̲-ɨβó?ᶜò-:ù̲

road middle all-lie.face.down-⟨cls⟩

íhʲá-kʰù̲nɯ́-:pɛ̀-kʰɛ̀

be-sSt-⟨SgM⟩-objAn

b. hù̲:βá-jí p̲ʰ̲á̲-ɨβó?ᶜò-:ù̲

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 mécuwá páɨvóhooúcu.

mù̲?tsʰì mɛ́ kʰù̲kpá-?ì p̲ʰ̲á̲-ɨβó?ò:-ɯ́-kʰù̲

we(DuEx) SAP sleep-⟨t⟩ all-lie.face.down-⟨cls⟩-du

'The two of us (ex.) slept face down.'

(187) Tsɨɨme cuwá páɨvóhooújɨ.
tsʰɨ̀ːmɛ̀ kʰʊ̀ʉkpá-ʔì pʰá-ɨ̀βóʔòː-ʊ́ɪ̀-hɨ̀
children sleep-⟨t⟩ all-lie.face.down-⟨cls⟩-InPl
'The children sleep face down.'

Another type of deverbal adjective is described in section 4.3.6.1.

4.3.5 Negative deverbal adjectives

The suffix -tʰʊ̀ʉ (-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.
ò pʰɛ́ː-ʔì tʰɛ̀ː-nɛ̀ ímípáˣʧʰó-tʰʊ̀ʉ-ːpɛ́-ɾɛ̀ 'I am going without
I go-⟨t⟩ that-⟨ø⟩ fix-neg-⟨SgM⟩-only fixing it.'

-ɾà 'frustrative, contraexpectation' often accompanies -tʰʊ̀ʉ 'negative', as in the following examples. Note that in 189 the participle refers to the subject of maˣʧʰo 'eat':

(189) Májchóratú ú oomíhi.
máˣʧʰó-ɾà-tʰʊ́ɪ́ ʊ́ɪ ò:mí-ʔì 'You are returning without
eat-frs-neg you return-⟨t⟩ eating.'

In 190 màˣʧʰó-ɾà-tʰʊ̀ʉ is used as a predicate complement:

(190) a. màˣʧʰó-ɾà-tʰʊ̀ʉ tʰɛ̀ː-nɛ̀ (Majchóratu teéne.)
eat-frs-neg that-⟨ø⟩
b. tʰɛ̀ː-nɛ̀ màˣʧʰó-ɾà-tʰʊ̀ʉ (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: -tsʰo '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), -pʰɛˣtsʰo '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 -Ⓛ◯pʰi[24] (-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 -Ⓛ◯pʰi can be used as a verb, as in 191 and 192:

(191) Táácááni cuwápíhi.
tʰá: Ⓖ kʰá:nì kʰùkpá-pʰí-ʔì ‘My father sleeps excessively.’
my father sleep-excess-⟨t⟩

(192) Táátsɬɬju ihjyúvapíhi.
tʰá: Ⓖ tsʰí:hù ìʔhʲúβà-pʰí-ʔì ‘My mother talks excessively.’
my mother talk-excess-⟨t⟩

Forms bearing -Ⓛ◯pʰi can also be used as predicate adjectives, as in 193 and 194. (Note that the hosts’ tones are high.)

(193) máˣʧʰó-pʰíʔ tì-:pʲè (Májchópí diíbye.) ‘He is a glutton.’
eat-excess that-⟨SgM⟩

(194) Chémépí táñaálle.
ʧʰémé-pʰíʔ tʰá Ⓖ ɲáˡ:-ʧè ‘My sister is sickly.’
be.ill-excess my sib-⟨SgF⟩

4.3.6.2 -lle ‘try’

The suffix -ʧɛ (-lle) ‘try’ is used as in 195:

(195) Oke méénúlleébe.
ò-kʰè mé:nú-ʧè-:pè ‘He tried to hit me.’
I-objAn hit-try-⟨SgM⟩

4.3.6.3 -pejtso ‘upon encountering’

The suffix -pʰɛˡˣtsʰo (-pejtso) ‘upon encountering’ (meet) is exemplified in 196. It may co-occur with -ʧɛ (-lle) ‘try to’ as in 197.

(196) Oke méénúpéjtsoóbe.
ò-kʰè mé:nú-pʰɛˣtsʰò-ópè ‘Upon encountering me,
I-objAn hit-meet-⟨SgM⟩ he hit me.’

[24] In contrast to the classifier -ˣpʰì ⟨SgM⟩, the suffix -Ⓛ◯-pʰi ‘excessive’ never has preaspiration.

(197) Oke méénúpéjtsólleébe.
ò-kʰè mɛ́ːnɯ́-pʰɛ́ˣtsʰó-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 -ìɲɯ (-iñu) ‘go after doing’, -Ⓛtʰɛ[25] (-te) ‘go to do’, -hɛ (-je) ‘come after doing’, and -Ⓛ◯βa[26] ‘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 4.1 Relocation suffixes

	MOVE BEFORE DOING	MOVE AFTER DOING
DO HERE	Ⓛ◯-βa (-va) ‘come to do’ (come.do)	-iɲɯ (-iñu) ‘go after doing’ (do.go)
DO THERE	Ⓛ-tʰɛ (-te) ‘go to do’ (go.do)	-hɛ (-je) ‘come after doing’ (do.come)

Examples of the various relocational (directional) suffixes follow:

[25]-Ⓛtʰɛ ‘go to do’ imposes a low tone on the preceding syllable, as demonstrated in the following:

ó áì-ːβʲé-ʔì (Ó áiivyéhi.) ‘I got burned.’
ó áíˡ-ːβɛ-tʰé-ʔì (Ó áívetéhi.) ‘I’m going to get burned.’
I burn-sIn-go.do-⟨t⟩

ó máˣʧʰò-tʰé-ʔì (Ó májchotéhi.) ‘I’m going to eat.’
máˣʧʰò-tʰé-ːpɛ̀ (Májchotéébe.) ‘He’s going to eat.’
máˣʧʰò-tʰé-ʧɛ̀ (Májchotélle.) ‘She’s going to eat.’
máˣʧʰò-tʰé-mɛ̀ (Májchoteme.) ‘They are going to eat.’

[26]-Ⓛ◯βa (-va) ‘come to do’ imposes a low tone on its host’s penult, as can be seen in the following:

ó màˣʧʰó-βá-ʔì (Ó majchóváhi.) ‘I’m coming to eat.’
màˣʧʰó-βà-ːpɛ̀ (Majchóvaábe.) ‘He’s coming to eat.’
màˣʧʰó-βà-ʧɛ̀ (Majchóvalle.) ‘She’s coming to eat.’
màˣʧʰó-βá-mɛ̀ (Majchóváme.) ‘They are coming to eat.’

(198) a. má^{x}ʧ^{h}ó-hɛ̀-ːpɛ̀ (Májchójeébe.) ‘He came from eating.’
eat-do.come-⟨SgM⟩
b. má^{x}ʧ^{h}ò-t^{h}é-ːpɛ̀ (Májchotéébe.) ‘He went to eat.’
eat-go.do-⟨SgM⟩
c. mà^{x}ʧ^{h}ó-βà-ːpɛ̀ (majchóvaábe) ‘He comes to eat.’
eat-come.do-⟨SgM⟩

(199) Oke méénúɬñuúbe.
ò-k^{h}è mɛ́ːnúˊ-ɲ̀ɲ̀ù-ːpɛ̀ ‘He hit me and then left.’
I-objAn hit-do.go-⟨SgM⟩

(200) Ó cúwaté dihjyávu.
ó k^{h}ʊ́kpà-t^{h}ɛ́-ʔì tɪ^{G}ʔ hʲá-βʊ̀ ‘I am going to sleep
I sleep-go.do-⟨t⟩ your house-goal in your house.’

(201) Ó cúwajé dihjyári.
ó k^{h}ʊ́kpà-hɛ́-ʔì tɪ^{G}ʔ hʲá-ɾì
I sleep-do.come-⟨t⟩ your house-sou
‘I return from sleeping in your house.’

(202) Ó cuwává dihjyávu.
ó k^{h}ʊ̀kpá-βá-ʔì tɪ^{G}ʔ hʲá-βʊ̀ ‘I come to sleep in
I 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.
ò-k^{h}è má^{x}ʧ^{h}ò-t^{h}é-ʦ^{h}ò-ːpɛ̀ ‘He made me go to eat.’
I-objAn eat-go.do-caus-⟨SgM⟩

The suffix -Ⓛt^{h}è ‘go to do’ and -Ⓛ◯βà ‘come to do’ may be followed by -Ⓛk^{h}ì ‘purpose’ (which is otherwise used to form adverbial clauses). The combination of ‘come to do’ or ‘go to do’ and -Ⓛk^{h}ì indicates that the action indicated by the host verb is the purpose for going or coming, as in 204:

(204) a. ó má^{x}ʧ^{h}ò-t^{h}é-k^{h}ì (Ó májchotéki.) ‘I go to eat there.’
b. ó mà^{x}ʧ^{h}ó-βà-k^{h}ì (Ó majchóvaki.) ‘I come to eat here.’

The suffix -Ⓛk^{h}i can be added to a main verb only if -Ⓛt^{h}ɛ or -Ⓛ◯βa 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 -t^{h}ɛ ‘go to do’. First ma^{x}ʧ^{h}o moves

The suffix -Ⓛtʰɛ̀ ‘go to do’ may be used with the verbalizer -Ⓛ◯βà ‘have’ to indicate departure from normal state: kʰájòpá-ːβà-tʰɛ̀ ‘become angry’, áhʲàpá-ːβà-tʰɛ̀ ‘become hungry’, mɛ̀í-βà-tʰɛ̀ ‘to go crazy’, tɯ̀ʔkʰɯ́-βà-tʰɛ̀ ‘to become weak’.[28] The tone derivations of two affixal-verb combinations, ó kʰájò-pá-βà-tʰɛ́-ʔì and kʰájò-pá-βà-tʰɛ́-tsʰó-mɛ́, are shown in figure 4.3:

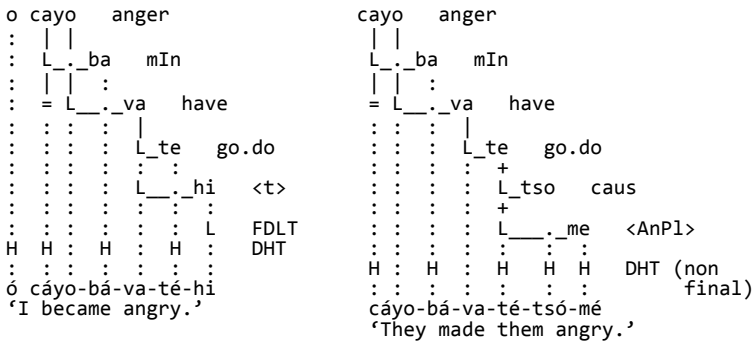
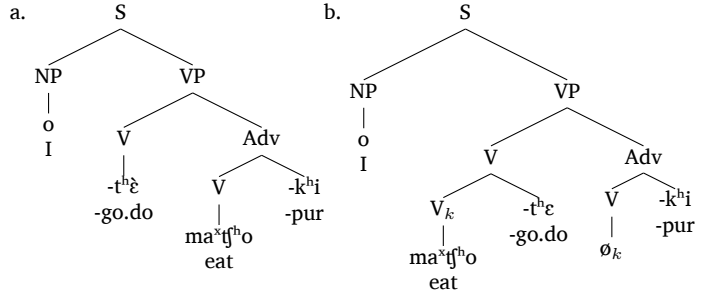


Figure 4.3 TD: ó cáyobávatéhi, cáyobávatétsómé

to join -tʰɛ, stranding -kʰi; see b. (below). Subsequently -kʰi cliticizes to -tʰɛː



[28]Other cases of this combination indicate departure from normal state less obviously, e.g., kpájɲɛ̀ʔhí-βà-tʰɛ̀ ‘to perform a festival’, ápʰiːʧʰó-βà-tʰɛ̀ ‘to hunt for the cause of illness by divination’. And some, of course, simply indicate physically going: háːʔàɲɛ́-βà-tʰɛ̀ ‘to go to visit’.

4.3.7 Adverbs and adjectives

Some words, like kpahʲɯ 'stingy', are adjectives.[29] Others are adverbs, for example, tsʰàíhʲù '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: ábajɨhco, aabópi, aabúcu, adɨ́ɨ́jɨ, adópi, aíjcyo, ajtyúva, álliu, allóócoó, ámɨ́ɨ́cuú, ámɨ́tsaráhco, ani, aapáromúva, aápi, ápiíchoó, avyécu, avye, aya, baába, bahmɨ, bahri, bajtu, beréjco, bɨ́ɨ́bɨrɨ́va, bɨrɨ́hba, bɨɨ́va, bohɨ, boohówa, bolléécuú, caráhja, carájco, cááyóbaá, cáyóbanéjcu, cohpe, corɨ, cúhyumúva, cúváácuú, cuúve, cuwáácu, cuwápi, chaacháva, chéiyíva, cheme, chemójco, cherójco, chovájco, dáíhyañe, dáɨhcoó, daárɨ, dóllóhcoó, doópi, duhcu, duujɨnuúdu, 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, ɨ́jɨ, ɨ́mɨ̲a, 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, pɨrúúcuú, poáhco, póñóócuú, pore, pujúhco, rayúhcoó, rérohjáco, reróhco, rohdsɨ, rójɨhcoó, ruhíhcyo, ruhíhcyo, rutújco, taícho, táákívyeé, téávohjúcunu, técánohjúcunu, teéve, tɨjɨhca, toócu, tuucúva, tuhúúlle, tujpa, túJpañe, tuutáva, tútávanéjcu, tsaímijyúre, tsaɨ́ɨbuwáre, tsápɨnéjcu, tsaráácu, tsáriñéjcu, tsijye, tsijye, tsɨtsɨ, tsocájco, tsohco, tsuúco, tsuhjɨ́va, údíícyuú, údícyunéjcu, uhje, ujcáva, ujcútso, ujtsi, úmeco, úmuupícho, úmuupílle, úúpíyií, úraavyépi, vájɨhcoó, 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, ááabaúvúre, aaca, acádsɨhnécu, ácooca, ácuhnécu, aacúrɨ́vaco, ahdícyane, ahdu, áhdure, áijyu, ájcoójɨ, ákyehnécu, áánáa, ááne, aanéjɨ́va, áánélliíhye, áánema, ááanetu, 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, cójɨéllé(h), coomírɨ́vaco, cuujúrɨ́vaco, cúúvéhullére, choóco, deehérɨ́vaco, dɨɨbérɨ́vaco, doobérɨ́vaco, dootóúrɨ́vaco, doovíyírɨ́vaco, éée, ehdícyane, (ehdu, íjcyane), ehdu, éhjɨhjɨtu, éhjɨhjɨtu, 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, ɨ́ɨcúií, ɨ́dsɨhɨ́vánetu, ɨ́hdeé, ɨ́hdéjuco, ɨhtsúta, ɨɨtsɨ́rɨ́vaco, ɨ́veekí, ɨɨvóhórɨ́vaco, ɨɨwárɨ́vaco, kiá, miibyérɨ́vaco, múcooca, muhdú, múijyu, muurá(h), mútsií, nanítyari, néhijyácaá, nehíkyére, nihñe, níhñécunu, nɨɨjcáúrɨ́vaco, oobɨráúrɨ́vaco, oohárɨ́vaba, oohárɨ́vaco, oohbárɨ́vaco, ojpíítyari, óuuvératu, paachícharɨ́vaco, pahdu, paíjyuva, pane, páoohájɨ, paarúrɨ́vaco, paatúrúrɨ́vaco, paatsɨ́rɨ́vaco, paayúrɨ́vaco, pécóhajchóta, pécójpɨɨ́ne, peecútére, peíjuco, peíye, pejco, péjcore, péjcorétúre, pevétáre, piéhdúre, piíllúrɨ́vaco, piityáhárívaco, pɨrune, pɨɨtórɨ́vaco, reevórɨ́vaco, rootóhórɨ́vaco, taarívájárɨ́vaco, taaróhjɨ́rɨ́vaco, téchiúcunu, tehdu, tehdújuco, téhdure, téijyu, téijyócunu, téɨbórɨbaúcunu, téɨɨbúwa, téɨtsɨúcunu, téɨvóhoúcunu, téjcoojɨvádu, témíbyeúcunu, témótsiúcunu, téénélliíhye, téñáhiúcunu, tépaayúcunu, tétácúruhjúcunu, tétódsɨúcunu, téévéneúvu, teevétari, téwátyuúcunu, toodsɨ́rɨ́vaco, tujkénu, tsáhaá, tsahííyi,

used as both adjectives and adverbs, for example, ù̀ɯ́ʔɨ̀ ‘weak (adjective); slowly (adverb)’.[31]

Some adjectives may be used as adverbs when followed by -nɛ -⟨ø⟩. For example, in 205 mítʲʰà-nɛ̀ (much/big-⟨ø⟩) ‘much, hard’ is used adverbially:

(205) mítyane wákímyeííbye
mítʲʰà-nɛ̀ kpákʰímʲɛ̀í-ːpʲɛ̀ ‘He works hard’ or
big-⟨ø⟩ work-⟨SgM⟩ ‘He works a lot.’

The word ímí-ɲɛ̀ ‘well’ is used as an adverb in 206:

(206) Ímiñe wákímyeííbye
ímì-ɲɛ̀ kpákʰímʲɛ̀í-ːpʲɛ̀ ‘He works hard’ or
good-⟨ø⟩ work-⟨SgM⟩ ‘He works a lot.’

Likewise, kʰóʔpʰɛ̀-nɛ̀ (hard-⟨ø⟩) ‘solid, firm, hard’ is used adverbially in 207:

(207) cóhpene míhchúúveco.
… kʰóʔpʰɛ̀-nɛ̀ míʔʧʰɯ́-ɯ́βɛ̀-kʰò
hard-ø close.eyesImp-sIn-implore
‘…close your eyes tight.’

When such deadjectival adverbs are followed by -Ⓛɯβɯ ‘max’, the low tone of -Ⓛnɛ̀ ⟨ø⟩ is delinked so that -Ⓛɯβɯ ‘max’ can dock its low tone; see 208:

(208) kʰóʔpʰɛ́-nɛ̀-ɯ́βɯ̀ɯ (cóhpé-ne-úvu) ‘very hard or tight’
hard-adv-max
pʰɨ́ɾɯ́-nɛ̀-ɯ́βɯ̀ɯ (pɨ́rú-ne-úvu) ‘completely’
complete-adv-max
ímí-ɲɛ̀-ɯ́βɯ̀ɯ (ímí-ñe-úvu) ‘very well’
good-adv-max

tsaíjyu, tsáijyu, tsájcoójɨ, tsájcuúve, tsajɨ́jtóre, tsapéhdu, tsápehju, tsatsíhyi, tsíhyulle, tsiíñe, tsɨ́tsɨjnécu, tsúúcaja, tsuuhórɨ́vaco, uhjéta, uutsúcúrɨ́vaco, viicyórɨ́vaco, wáduhnécu, wahájchota, wahdyúre, wajácútsi, waajɨ́htárɨ́vaco, wajɨ́tahñécu, wállahnécu, waallárɨ́vaco, waapɨ́rárɨ́vaco, waaríjyárɨ́vaco, waatyóhɨ́rɨ́vaco, waatyúrɨ́vaco.

[31] See the following entries in (Thiesen & Thiesen 1998): *aába*, *aabájke*, *átéreé*, *bañu*, *caáme*, *chohju*, *dseréjco*, *íahpádyu*, *imi*, *imíchi*, *ímítyuú*, *ímíubááne*, *ɨ́hnáhoó*, *ɨ́htsútuú*, *keéva*, *kimóhcoó*, *lleéva*, *mítyane*, *nehni*, *núcojpɨ́tso*, *pevéne*, *pɨ́ɨhɨ́re*, *tánéhduú*, *téévetúne*, *tuhu*, *tujkéve*, *tsahdu*, *tsaímíye*, *tsajcyu*, *tsajpɨ́*, *tsari*, *tsatújkeve*, *tsaáva*, *tsávanéjcu*, *tsíhdyure*, *tsɨ́jpa*, *uúhɨ́*.

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 4.2 Instrumental prefixes

to-	(do-)	'do with the hand'
tɨ-	(dɨ-)	'do with the teeth'
tʰa-	(ta-)	'do with the foot'
kʰa-	(ca-)	'do with something pointed'
kʰi-	(ki-)	'do with some cutting tool'
pʰɨ-	(pɨ-)	'do with something like a saw'
kpa-	(wa-)	'do by a series of blows'

These are illustrated in tables 4.3 and 4.4. In table 4.3, pʰɯhɯ 'break something fragile' is followed by -ʔhákʰò 'sTr' and in table 4.4 ʔtàʔɨ́ 'break' is followed by -ɾò 'sTr'. Despite having these singular transitive suffixes, these derived verbs may be used as transitive, intransitive or stative.

Table 4.3 Instrumental prefixes with púju 'break something fragile'

tó-pʰɯ́hɯ̀-ʔhákʰò (dópújuhjáco)	'break something fragile with the hand'
tɨ́-pʰɯ́hɯ̀-ʔhákʰò (dɨ́pújuhjáco)	'break something fragile with the teeth'
tʰá-pʰɯ́hɯ̀-ʔhákʰò (tápújuhjáco)	'break something fragile with the foot'
kʰá-pʰɯ́hɯ̀-ʔhákʰò (cápújuhjáco)	'break something fragile with something pointed'
kpá-pʰɯ́hɯ̀-ʔhákʰò (wápújuhjáco)	'break something fragile with a series of blows'

[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.

Table 4.4 Instrumental prefixes with hdaɬ 'break, sever'

tó-ʔtàʔí-ɾò (dóhdaɬro)	'break something into pieces with the hand'
tí-ʔtàʔí-ɾò (díhdaɬro)	'break something into pieces with the teeth'
tʰá-ʔtàʔí-ɾò (táhdaɬro)	'break something with the foot'
kʰí-ʔtʲàʔí-ɾò (kíhdyaɬro)	'sever something with a cutting tool'
pʰí-ʔtàʔí-ɾò (píhdaɬro)	'sever with something like a saw'
kpá-ʔtàʔí-ɾò (wáhdaɬro)	'cut or sever by a series of blows with some tool'

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 ò:ʔí:pʲɛ̀ ‘dog’ and the predicate is the verb tsì:nɛ̀ ‘run’:

(209) ò:ʔí-:pʲɛ́ tsì:né-ʔì (Oohííbyé dsɨɨnéhi.) ‘The dog runs.’
dog-⟨SgM⟩ run-⟨t⟩

The subject may be a free, preverbal pronoun, as in 210:

(210) á:nùù tʃʰèmé-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 ∼ ma[1] ‘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 mɛ ‘SAP’:

(211) Ímí muha mecúwaca tsá muha mechéméturóhi.
ímíʔ mùɯʔà mɛ̀ kʰʷ̰ɯ̀kpà-kʰà
good we.ex SAP sleep-CF

tsʰa̋ʔ mùɯʔà mɛ̀ tʃʰémé-tʰɯ̀-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 ámùɯʔà mɛ̀ kʰʷ̰ɯ̀kpá-ʔàˣtʃʰí:
good you.pl SAP sleep-if

tsʰa̋ʔ ámùɯʔà mɛ̀ tʃʰémé-í-tʲʰɯ̀-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 ditye cúwáhajchíí tsá ditye chéméítyuróhi.
ímíʔ tì-tʲʰɛ̀ _ kʰʷ̰ɯ̀kpá-ʔàˣtʃʰí:
good that-⟨AnPl⟩ sleep-if

tsʰa̋ʔ tì-tʲʰɛ̀ _ tʃʰémé-í-tʲʰɯ̀-ɾó-ʔì
not that-⟨AnPl⟩ be.ill-fut-neg-frs-⟨t⟩
‘If they sleep well, they are not likely to get sick.’

[1] /ma/ occurs before /a/.

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) Ímí mecúwáhajchíí tsá mechéméityuróhi.

ímíʔ __ mɛ̀ kʰ$\overset{S}{\text{ɯ}}$kpá-ʔàˣʧʰíː tsʰ$\overset{H}{\text{a}}$ʔ __ mɛ̀ ʧʰémɛ́-ì-tʲʰù-ɾó-ʔì
good SAP sleep-if not SAP be.ill-fut-neg-frs-⟨t⟩
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-ʔì (Máalléhi.) '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 -ʔì (-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.	Ó	majchóhi.		
	ó	màˣʧʰó-ʔì	—	'I eat.'
	I	eat-⟨t⟩		
b.	Dipye	majchóhi.	Májchoóbe.	
	tì-pʲʰɛ̀	màˣʧʰó-ʔì	máˣʧʰò-ːpɛ̀	'He eats.'
	that-⟨SgM⟩	eat-⟨t⟩	eat-⟨SgM⟩	
c.	Dille	majchóhi.	Májcholle.	
	tì-ʧɛ̀	màˣʧʰó-ʔì	máˣʧʰò-ʧɛ̀	'She eats.'
	that-⟨SgF⟩	eat-⟨t⟩	eat-⟨SgF⟩	
d.	Ditye	majchóhi.	Majchóme.	
	tì-tʲʰɛ̀	màˣʧʰó-ʔì	màˣʧʰó-mɛ̀	'They eat.'
	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.

[2]The literal meaning of 214 is as given in 214a, but it is construed as in 214b.

[3]Note 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.[4] 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

-:pɛ	(-:be)	⟨SgM⟩
-tʃɛ	(-lle)	⟨SgF⟩
-mɯtsʰi	(-mutsi)	⟨DuM⟩
-mɯpʰɨ	(-mupɨ)	⟨DuF⟩
-mɛ	(-me)	⟨AnPl⟩
-tsʰɨ	(-tsɨ)	⟨child⟩

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-tʃɛ̀ (Ácúúvelle.) 'She sat down.' (SgF)
c. ákʰɯ́ːβɛ̀-mɯ́tsʰì (Ácúúvemútsi.) 'They sat down.' (DuM)
d. ákʰɯ́ːβɛ̀-mɯ́pʰɨ̀ (Ácúúvemúpɨ.) 'They sat down.' (DuF)
e. ákʰɯ̀ːβɛ́-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.'
burn-⟨leaf⟩

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:[5]

(219) àtʃɛ́-nɛ̀ (Alléne.) 'It is raining.'
rain-⟨ø⟩

A plural marker may follow the inanimate classifier subject, either -ːkʰɯ 'duIn' or -(ʔ)hɨ 'plural', as in 220:

[4] Although -mɯ-tsʰi ⟨DuM⟩ and -mɯ-pʰɨ ⟨DuF⟩ are bimorphemic, for convenience we write them as single morphemes throughout this grammar.

[5] This can also be expressed using an impersonal subject; compare 219 to 215.

(220) áíːβʲé-ʔà:mɨ́-kʰʊ̀ɪ̀ (Áíívyéhaamɨ́cu.) '(The two books)
burn-⟨leaf⟩-duIn are burning.'

(221) áíːβʲé-ʔà:mɨ́-hɨ̀ (Áíívyéhaamɨ́jɨ.) '(The books
burn-⟨leaf⟩-⟨pl⟩ are burning.)'

A preverbal subject noun phrase and a classifier subject are mutually exclusive, i.e., either one or the other may occur, but not both. We will call this the PREVERBAL SUBJECT CONSTRAINT.

When the subject is indicated by both a classifier suffixed to the verb and an overt phrase, then the phrase must follow the verb and is in apposition to the classifier subject. For example, in 222 the verb is followed by the classifier subject and then a noun (phrase) in apposition to the classifier subject:

(222) Tsájúcoobe oohííbye.

tsʰá-hʊ́ɪ́kʰò-ːpɛ̀ Ⓐ ^{L}oːʔí-ːpʲɛ̀ 'The dog already came.'
come-now-⟨SgM⟩ dog-⟨SgM⟩

In 223, which might initiate a text, the verb is followed by the classifier subject and then by a pronominal phrase and a relative clause, both of which are in apposition to the classifier subject:

(223) Íjcyaabée tsaapi Jóáa imyéme íjcyaábe.

íˣkʲʰà-ːpɛ̀-$^{H}_{L}$ɛ̀ Ⓐ tsʰà-ːpʰì Ⓐ [hóáà [^{G}ì mʲémɛ̀] ^{S}ìˣkʲʰà]-ːpɛ̀[6]
be-⟨SgM⟩-rem one-⟨SgM⟩ John self name be -⟨SgM⟩
'There was a man whose name was John.'

From a cross-linguistic perspective it is not unusual to have a postverbal subject in an "existential presentative" such as 223. In Bora, aside from existential presentatives, an overt postverbal subject generally serves to clarify the identity of the subject in contexts where the classifier is not sufficiently specific.

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 ìˣkʲʰà 'be'. For example, consider the relative clause in 223 above; the predicate complement is hóáà 'John', the subject is ì mʲémɛ̀ 'self's name', and the copula is ìˣkʲʰà 'be'.

[6]The final appositional phrase of 223 is a noun phrase headed by -ːpɛ ⟨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 tì-ːpʲɛ̀ (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.[7]

(225)
a. tì-ːpʲɛ̀ tʰáː kʰáːnìí (Diibye táácáánií.)
that-⟨SgM⟩ my father
b. tʰáː kʰáːnì tì-ːpʲɛ̀ (Táácááni diíbye.)
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 aːʔɨ́.

(226) àːʔɨ́ tìːpʲɛ̀ (Aahɨ́ 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) [háː Ⓖ pʰa̰ɲ̀ɛ̀] ìˣkʲʰá-nɛ̀ (Já pañe ijcyáne.) 'It is in the house.'
house inside be-⟨ø⟩

(228) Méétsá lliiñe oohííbye.

PREDICATE COMPLEMENT		SUBJECT	
[méːtsʰá	Ⓖ tʃ̀ːɲɛ̀]	òːʔíˑːpʲɛ̀	'The dog is under the table.'
table	under	dog-⟨SgM⟩	

The suffix -ʔiˣkʲʰa 'habitual action or characteristic' is an affixal form of iˣkʲʰa 'be'; see section 5.10.2 for discussion.

[7] The initial syllable of many pronouns shortens when the pronoun is the subject of the sentence. For example, in tì̱pʲɛ̀ pʰɛ́-hʉ̀kʰóː-ʔì 'He went', the first syllable of tìːpʲɛ̀ (diibye) is short. Contrary to what one would expect, however, the subject of a predicate complement clause never suppresses the length. For example, in 225 the subject is tì-ːpʲɛ̀ (nonfinal) or tìípʲɛ̀ (final).

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 -Ⓛ◯nɛ ⟨n⟩ (5.4.2).[8]

5.4.1 -hi ∼ -h ⟨t⟩

The morpheme -Ⓛ◯ʔ(i) ⟨t⟩ is suffixed to the verb of the main clause, as in 229:

(229) Ávyéjuube ihájkímuke néé ditye ihjya iímíbájchoki.
áβʲɛ́hɯ̀-ːpɛ̀ ɪ̀ ʔáˣkʰí-mɯ̀-kʰɛ̀ nɛ́ː-ʔ(ì) tì-tʲʰɛ̀
chief-⟨SgM⟩ self folk-plAn-objAn say-⟨t⟩ that-⟨AnPl⟩

ɪ̀ʔ hʲà ì ɪ́mípáˣʧʰò-kʰì
self house self fix-pur
'The chief told his people to fix his[9] 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. ɨ̀ːhɯ̀ ɯ́mɨ̀βá-ʔì (Ɨɨju úmɨvá.) 'The horse escaped.'
horse escape-⟨t⟩

b. { *ɯ́míβà-ːpɛ́-ʔì / escape-⟨SgM⟩-⟨t⟩ / ɯ́míβà-ːpɛ̀ / escape-⟨SgM⟩ } (Úmɨvaábe.) 'He escaped.'

Nor does it occur in negative clauses; such cases are discussed in the next section.

The suffix -Ⓛ◯ʔ(i) ⟨t⟩ imposes a low tone on its host's penult:

(231) a. ó ʧɛ́ːnɛ́-ʔì (ó lleenéhi) 'I eat (fruit).'
b. ó ɪ́ʔβɛ́tʰɛ́-ʔì (ó ɬhvetéhi) '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 ì ʔhʲá ʔáɲɛ̀ (self house various) 'his/their various houses', then the favored interpretation would be 'their houses'.

(232) a. Ó ímíbajchóhi.
ó ímípa$^{\overset{L}{x}}$ʧʰó-ʔì ‘I fix.’
I fix-⟨t⟩

b. Ó ímíbájchotéjucóóhi.
ó ímípá$^{\overset{L}{x}}$ʧʰò-tʰé-hɯ́kʰó:-ʔì ‘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 -Ⓛ◯ʔ(i) ⟨t⟩ cannot dock its Ⓛ on the penult:

(233) a. ó $\overset{L}{a}$:ʔíβé-ʔì (ó *aahívéhi*) ‘I visit.’
b. ó ámá$\overset{L}{p}$ɯ́kʰɯ́-ʔì (ó *ámabúcúhi*) ‘I hug.’

Sentence finally, the segments of -Ⓛ◯ʔ(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 àˀtó-ʔì (Ó *ahdóhi*.) ‘I paid.’
I pay-⟨t⟩
b. ó àˀtó-ˀ__ tí-ːpʲè-kʰè (Ó *ahdó dííbyeke*.) ‘I paid him.
I pay-⟨t⟩ that-⟨SgM⟩-objAn

5.4.2 -ne ⟨n⟩

The morpheme -Ⓛ◯nɛ̀ ⟨n⟩ is suffixed to the verbs of negative sentences, whether declarative or imperative. It occupies the position -Ⓛ◯ʔi ⟨t⟩ occupies in a nonnegative sentence. However, unlike -Ⓛ◯ʔi ⟨t⟩, an explicit preverbal subject is not required, as shown by 235:

(235) máˣʧʰò-tí-(ɲɛ̀) (¡M*ájchodí(ñe)*!) ‘Do not eat!’
eat-neg-⟨n⟩

Following -tʰɯ ‘negative’, -Ⓛ◯nɛ ⟨n⟩ is optional:

(236) ʦʰa$^{\overset{H}{}}$ˀ ò máˣʧʰò-tʰɯ́-(nɛ̀) (T*sá o májchotú(ne)*.) ‘I did not eat it.’
not I eat-neg-⟨n⟩

In a prohibition, if -nɛ 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 -Ⓛ◯ʔì ⟨t⟩.

(237)
a. {Pehdíñe / Pehdí} téhullévu.
b. Téullévú {pehdíñe. / pehdí.}
‘Do not go (over there).’

a. {pʰè-ʔtí-ɲè / pʰè-ʔtí-ʔ / go-neg-⟨n⟩} tʰé-ʔɯ̀ʧé-βɯ̀ that-⟨yonder⟩-goal
b. tʰé-ɯ̀ʧé-βɯ́ that-⟨yonder⟩-goal {pʰè-ʔtí-ɲè / pʰè-ʔtí-ʔ / go-neg-⟨n⟩}

The -Ⓛ◯nè, which has been glossed ⟨n⟩ is probably the same suffix as the one glossed ⟨ø⟩. 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 -nɛ, 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) [$_{V}$ tsʰá^{H}ʔ] [$_{NP}$ [$_{S}$ ò má^{S}^{x}ʧʰò-tʰɯ́] nè] ‘I did not eat it.’
deny I eat-neg ⟨ø⟩

5.5 Statements of fact

Another sort of sentence, one used to state a fact, consists simply of a subordinate clause terminated with -Ⓛ◯nɛ ⟨ø⟩. 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.
ó má^{S}^{x}ʧʰò-ɾó-nè. Á-ɾó-náà tsʰá^{H}ʔ ò ó^{S}ːβè-tʰɯ́-nè.
I eat-frs-⟨ø⟩ 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.

VERB	FRS[b]	NEG	SG/MUL[d]						
ROOT[a]	-ɾa	-tʰɯɯ	-ɾò						
			-ʔhàkʰò	-kʰoβʲiβɛ	-inɯ				RELOC[i]
	VRBLZR[c]		-ˣkʰò	-pʰɛˣtsʰo	(do.go)[f]	CAUS[g]	R/Pʰ	CAUS	-tʰɛ
	-βa		-nùɯ	-pʰɛˣlkʰo:βɛ	-ˣkʰatsʰi	-tsʰo	-mɛi	-tsʰo	-βa
NOUN	-nɯ		-:βɛ	-tʰɯˣkʰɛnɯ	(recip)		-pʰi		-hɛ
ROOT	-βɛ		-pà	-pʰi:βʲɛ					
	-ʧɛ		-ùkʰùnùù	-ʧɛ					
	-ˣkʰimɛi		-ˣkʰàtʲʰɛ						

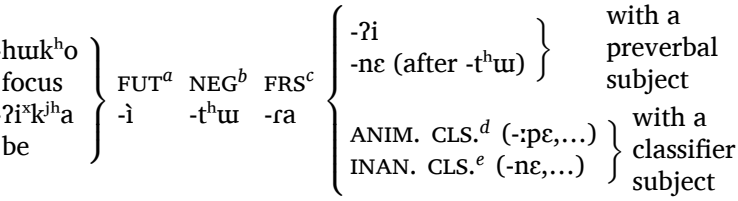
[a] The verb root may also be preceded by an incorporated instrument as described in section 4.4.
[b] textscfrs frustrative, contraexpectation
[c] VRBLZR verbalizer
[d] SG/MUL singular or multiple
[e] AFXVRB affixal verb
[f] 'do after going'
[g] CAUS causative
[h] R/P reflexive or passive
[i] RELOC relocation

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:



[a] FUT future
[b] NEG negative
[c] FRS frustrative, contraexpectation
[d] ANIM. CLS. animate classifier
[e] INAN. CLS. inanimate classifier

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.

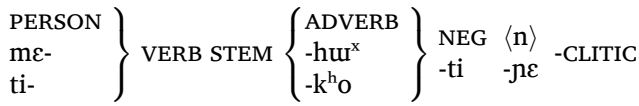


Figure 5.3 The imperative verb

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 àˣtʲʰɯ́mɨ̀ 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 áˣtʲʰɯ̀mɨ́-ʔì ò:ʔí-:pʲɛ̀-kʰɛ̀ 'I saw the dog.'
I saw-⟨t⟩ dog-⟨SgM⟩-objAn

(241) ó áˣtʲʰɯ̀mɨ́-ʔì (Ó ájtyumɨ́hi) 'I saw (it).'
I see-⟨t⟩

Intransitive verbs are illustrated in 242 and 243:

(242) ó ákʰɯ̀-:βɛ́-ʔì (Ó ácuuvéhi.) 'I sat down.'
I sit.down-sIn-⟨t⟩

(243) Ó dsɨ́ɨné (taɦjyávu).
ó tsɨ̀:né-ʔì (tʰa̰ʔ hʲá-βɯ̀ɪ) 'I ran (to my house).'
I run-⟨t⟩ my ⟨shelter⟩-goal

The verb aβʲɛ 'to hurt' may function both as transitive, as in 244a, or as intransitive, as in 244b. In 244c the intransitive verb is made transitive

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. ò-k^{h}è àβ^{j}é-nè (Oke *a*vyéne.) 'It hurts me.'
I-objAn hurt-⟨ø⟩
b. ò áβ^{j}é-ʔì (O *á*vyéhi.) 'I hurt.'
I hurt-⟨t⟩
c. ò-k^{h}è áβ^{j}é-ʦ^{h}ò-ːpè (Oke *á*vyétsoóbe.) 'He hurt me.'
I-objAn hurt-caus-⟨SgM⟩

Some verbs are inherently stative, indicating a condition or quality, as in 245:

(245) ó ʧ^{h}èmé-ʔì (Ó cheméhi.) 'I am sick.'
ó àβ^{j}é-ʔì (Ó *a*vyéhi.) 'I am in pain.'
ó ìmí-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 ák^{h}ù-ʊ́k^{h}ùnʊ́-ʔì (Ó *á*cuúcunúhi) 'I am seated'.
I sit-sSt-⟨t⟩

Participles can be formed from this (second) type of stative verb by prefixing t^{h}ɛ- '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 ák^{h}ù-^{x}k^{h}át^{jh}è (sit-mSt) 'seat':

(247) Ó *á*jtyumɨ́ mɨ́*a*múnáa*a*kye téá*á*cujcátye.
ó á^{x}t^{jh}ùmí-^{ʔ} mɨ́^{L}ámʊ́náà-k^{jh}è t^{h}é-ák^{h}ù-^{x}k^{h}át^{jh}è
I see-⟨t⟩ people-objAn prtc-sit-mSt
'I see people seated.'

The verbs ʧ^{h}ɛmɛ 'to be sick', aβ^{j}ɛ 'to hurt' and imi '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 àkʰúɯ-ːβɛ̀ (single action) or as àʔkʰúɯ-pà (multiple action). FREE roots, like pʰɛː 'go', tsʰaː 'come' and maˣʧʰo '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

	SINGULAR		MULTIPLE	
transitive	-Ⓛˣkʰáɾo	(-jcáro)	-Ⓛˣkʰo	(-jco)
	-Ⓛʔhákʰo	(-hjáco)	-Ⓛʔkʰo	(-hco)
	-Ⓛ◯ɾo	(-ro)	-Ⓛnɯ	(-nu)
	-Ⓛ◯ɾo	(-ro)		-ø[a]
	-Ⓛúkʰɯ	(-úcu)	-Ⓛˣkʰɯ	(-jcu)
	-Ⓛákʰo	(-áco)	-Ⓛjco	(-jco)
	-Ⓛʔhʲúkʰɯ	(-hjyúcu)	-Ⓛ(ʔ)kʲʰo	(-hcyo ∼ -cyo)
	-Ⓛ◯kʰɯ	(-cu)	-Ⓛ◯kʰùnɯ	(-cunu)[b]
	-Ⓛ◯kʰɯ	(-cu)		-ø[c]
intransitive	-ːβɛ	(-ːve)	-pa	(-bɑ)[d]
	-ø		-Ⓛ◯kʰùnɯ	(-cunu)
stative	-Ⓛɯkʰùnɯ	(-ucunu)	-Ⓛˣkʰatʲʰɛ	(-jcatye)

[a]For example itʃaː-jo 'strike-sTr'; compare itʃo 'to cut down (mTr)'.

[b]For example, ˩átɯ-kʰɯ 'drink-sTr'; compare ˩átɯ-kʰ˩ùnɯ 'drink-mTr'.

[c]For example mɛ̀ˀ˩tɯ-kʰɯ 'drink-sTr'; compare mɛˀtɯ 'drink(mTr)'.

[d]The first syllable of the verb to which -pa 'mIn' 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 -Ⓛ◯kʰɯ 'sTr' and -Ⓛ◯kʰùnù 'mTr' are used with free verbs; the others are used only with bound verb roots. The intransitives with -ːβɛ 'sIn' and -pa 'mIn' are formed only from bound verb roots, while -Ⓛ◯kʰùnù 'mIn' is used with free verb roots. The statives with -ⓁùkʰⓁɯnɯ 'sSt' and -Ⓛˣkʰatʲʰɛ '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.

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:nɯ̀	ák^{h}ɯ̀-:βé-ʔì	'This one sat down.'
this.SgM	sit-sIn-⟨t⟩	

b. Áátye áhcubáhi.

á:-t^{jh}è	á^{ʔ}k^{h}ɯ̀-pá-ʔì	'Those sat down all at once.'
that-⟨AnPl⟩	sit-mIn-⟨t⟩	

It is also possible to say 249:

(249) á:-t^{jh}è ák^{h}ɯ̀-:βé-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 -k^{h}ɯ 'sTr'. For example, as shown in 250a, mɛ^{ʔ}to '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 -k^{h}ɯ 'single action':

(250) a. Ó mehdó tabójɨ́ne.

b. Ó mehdúcú taabójɨ.

a. ó	mɛ̀^{ʔ}tó-ʔì	t^{h}àpó-hɨ́:-nɛ̀	'I swallow pills.'
I	swallow(mTr)-⟨t⟩	cure-⟨disk⟩-pl	
b. ó	mɛ̀^{ʔ}tɯ́-k^{h}ɯ́-ʔì[13]	t^{h}à:pó-hɨ̀	'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., ᴸàtɯ́-k^{h}ɯ̀ 'to drink a little' and ᴸmàˣtʃ^{h}ó-k^{h}ɯ̀ 'to eat a small amount':

[13]Note that the verb root's final vowel becomes /ɯ/ before /ɯ/.

(251) Ovíí ó majchócú ɨɨcúi mepéékií.

òβí: ó mâˣtʃʰó-kʰúɪ́ ɨ́:kʰúɪ̀ mɛ̀ pʰɛ́:-kʰìí.
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 -kʰɯnɯ 'multiple action' (mTr or mIn). For example, in 252a tsɨ̀:nɛ 'run' is a single action verb. The multiple action form bearing -kʰɯnɯ 'mIn' is seen in 252b:

(252) a. Áátye dsɨɨné mújcojúvu.

b. Áátye dsɨɨnécunú mújcojúvu.

á:-tʲʰɛ̀ that-⟨AnPl⟩ { a. tsɨ̀:né-ʔ run(sIn)-⟨t⟩ / b. tsɨ̂:né-kʰɯ̀nɯ́-ʔ run-mIn-⟨t⟩ } mɯ́ˣkʰòhɯ́-βɯ̀ 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 -Ⓛ◯:βɛ while the corresponding multiple form bears -Ⓛ◯pa.

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)VCV, 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

SINGLE ACTION		MULTIPLE ACTION		MEANING
àβó:βɛ̀	avóóve	à[ʔ]βópà	ahvóba	'cover oneself'
páhɯ̀ɪ́:βʲɛ̀	bájuíívye	pá[ʔ]hɯ̀ɪ́pà	báhjuíba	'turn one's back on'
kʰàmá:βɛ̀	camááve	kʰà[ʔ]mápà	cahmába	'put together'
kʰàɾɯ́ɪ:βɛ̀	carúúve	kʰà[ʔ]ɾɯ́ɪ[ʔ]pà	cahrúhba	'look up'

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SINGLE ACTION		MULTIPLE ACTION		MEANING
tʃʰàhá:βè	chajááve	tʃʰà˺há˺pà	chahjába	'rot, decompose'
kʰòmí:βʲè	comíívye	kʰò˺mí˺pà	cohmíba	'double over'
kʰùhú:βè	cujúúve	kʰù˺hú˺pà	cuhjúba	'stretch out the hand'
kʰátʃʰìjá:βè	cáchiyááve	kʰá˺tʃʰìjá˺pà	cáhchiyába	'squirt out liqiud'
kʰákʰòɾó:βè	cácoróóve	kʰá˺kʰòɾó˺pà	cáhcoróba	'become slack or untied'
kʰápʰàtʲʰú:βè	cápatyúúve	kʰá˺pʰàtʲʰú˺pà	cáhpatyúba	'stab through'
kʰátsʰòtsʰó:βè	cátsotsóóve	kʰá˺tsʰòtsʰó˺pà	cáhtsotsóba	'become overfull'
kʰáβàhá:βè	cávajááve	kʰá˺βàhá˺pà	cáhvajába	'become punctured'
kʰáɲájàhɨ́:βè	cáñáyajɨ́ve	kʰá˺ɲájàhɨ́˺pà	cáhñáyajɨba	'rest on one knee'
tòtí:βʲè	dodíívye	tò˺tí˺pà	dohdíba	'become scratched'
tùhú:βè	dujúúve	tù˺hú˺pà	duhjúba	'double over'
tópʰòá:βè	dópoááve	tó˺pʰòá˺pà	dóhpoába	'become unstuck'
tókpáràhɨ́:βè	dówárajɨ́ve	tó˺kpáràhɨ́˺pà	dóhwárajɨba	'extend arms with open hands'
ìɾó:βè	ɨróóve	ì˺ɾó˺pà	ɨhróba	'become flexible'
ìkpá:βè	ɨwááve	ì˺kpá˺pà	ɨhwába	'open the mouth'
kʰèɾó:βè	keróóve	kʰè˺ɾó˺pà	kehróba	'become visible'
mìhʲó:βè	mijyóóve	mì˺hʲó˺pà	mihjyóba	'make a detour'
mòjí:βʲè	moyíívye	mò˺jí˺pà	mohyíba	'penetrate a solid'
nèɾí:βʲè	neríívye	nè˺ɾí˺pà	nehríba	'climb up'
pʰàpɛ́:βè	pabééve	pʰà˺pɛ́˺pà	pahbéba	'squeeze under the arm'
ɾìhʲá:βè	rijyááve	ɾì˺hʲá˺pà	rihjyába	'take steps'
tʰòhá:βè	tojááve	tʰò˺há˺pà	tohjába	'be stuck by needle'

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SINGLE ACTION		MULTIPLE ACTION		MEANING
tsʰʉ̀háːβè	tsujááve	tsʰʉ̀ʔhápà	tsuhjába	‘disperse’
tʰʉ̀ɾúːβè	turúúve	tʰʉ̀ʔɾúpà	tuhrúba	‘fall over’
tʰákʰòɾɨ́ːβè	tácorɨ́ɨ́ve	tʰáʔkʰòɾɨ́pà	táhcorɨ́ba	‘undress’
ʉ̀múːβè	umúúve	ʉ̀ʔmúpà	uhmúba	‘close the lips’
úkúɾʉ̀úːβè	úgúruúúve	úʔkúɾʉ̀úpà	úhgúruúba	‘shrink’
útsʰʉ̀kʰúːβè	útsucúúve	úʔtsʰʉ̀kʰúpà	úhtsucúba	‘get stuck between’
βìkʲʰóːβè	vicyóóve	βìʔkʲʰópà	vihcyóba	‘lie down in hammock’
βʉ̀tóːβè	vudóóve	βʉ̀ʔtópà	vuhdóba	‘become torn apart’
kpàpɛ́ːβè	wabééve	kpàʔpɛ́pà	wahbéba	‘get entangled’
kpàhɨ́ːβè	wajɨ́ɨ́ve	kpàʔhɨ́pà	wahjɨ́ba	‘be put beside’
kpákʰòɾɨ́ːβè	wácorɨ́ɨ́ve	kpáʔkʰòɾɨ́pà	wáhcorɨ́ba	‘become scraped’
kpákòóːβè	wágoóóve	kpáʔkòópà	wáhgoóba	‘be tossed out’
kpáɾìʔʲóːβè	wárihyóóve	kpáʔɾìʔʲópà	wáhrihyóba	‘become separated by space’
kpáβàháːβè	wávajááve	kpáʔβàhápà	wáhvajába	‘become torn apart’

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

SINGLE ACTION		MULTIPLE ACTION		MEANING
kʰúʔtsʰìúːβè	cúhtsiúúve	kʰúʔtsʰìúpà	cúhtsiúba	‘lie down on the side’
íʔhʲòkʰúːβè	íhjyocúúve	íʔhʲòkʰúpà	íhjyocúba	‘stand up’
pʰìʔʧʰúːβè	pihchúúve	pʰìʔʧʰúpà	pihchúba	‘mount upon’
kpáʔtàʔɨ́ːβè	wáhdahɨ́ɨ́ve	kpáʔtàʔɨ́pà	wáhdahɨ́ba	‘be cut apart’

Or it might be heavy by being closed by ˣj, as the examples in table 5.5:

Table 5.5 When the first syllable of the singular is closed by preaspiration

SINGLE ACTION	MULTIPLE ACTION	MEANING
kpáˣpʰòtʃá:βè wájpollάάve	kpáˣpʰòtʃápà wájpollába	'roll over'
kpáˣtʲʰùʔí:βʲè wájtyuhíívye	kpáˣtʲʰùʔípà wájtyuhíba	'become tightly knoted'

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/,[14] 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,[15] as in the examples in table 5.7.

Table 5.6 Adding vowel length when the second syllable begins with a glottal stop

SINGLE ACTION		MULTIPLE ACTION		MEANING
pàʔʲá:βè	bahyάάve	pà:ʔʲápà	baahyába	'be stacked up'
kʰèʔí:βè	kehɬɬve	kʰè:ʔípà	keehɬba	'become visible'
tʃòʔí:βʲè	llohíívye	tʃò:ʔípà	lloohíba	'suround something'
ɲàʔí:βʲè	ñahíívye	ɲà:ʔípà	ñaahíba	'become dented'
tsʰùʔó:βè	tsuhóóve	tsʰù:ʔópà	tsuuhóba	'fold oneself up'
tʰáìʔʲá:βè	táihyάάve	tʰá:ìʔʲápà	táάihyába	'break into'
kpáʔèhú:βè	wáhejúúve	kpá:ʔèhúpà	wάάhejúba	'develop a big hole'

Table 5.7 Adding vowel length when the second syllable has no onset

SINGLE ACTION		MULTIPLE ACTION		MEANING
àí:βʲè	aíívye	à:ípà	aaíba	'burn up'
pùʉ́:βè	buúúve	pù:ʉ́pà	buuúba	'submerge'
tóùʔá:βʲè	dóuhάάvye	tó:ùʔápà	dóóuhába	'have piece broken off'
pʰòá:βè	poάάve	pʰò:ápà	pooába	'pop open'
pʰíùmí:βʲè	píumíívye	pʰí:ùmípà	pííumíba	'become folded over'

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[14]The first syllable could not be closed by ˀ in this case because the two glottal stops would coalesce, failing to make the first syllable heavy.

[15]The first syllable could not be made heavy by adding ˀ or ˣ because this would be syllabified as the onset of the second syllable.

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SINGLE ACTION		MULTIPLE ACTION		MEANING
tsʰòúː<u>βè</u>	tsoúúve	tsʰòːúpà	tsooúba	‘drop off’
βìúː<u>βè</u>	viúúve	βìːúpà	viiúba	‘break into’
kpáìʔʲáː<u>βè</u>	wáihyááve	kpáːìʔʲápà	wááihyába	‘become fractured’

5.8 Valence-changing suffixes

This section describes the valence-increasing suffix -tsʰo ‘causative’ (5.8.1) and the valence-decreasing suffixes -mɛ̀ⁱ ‘reflexive or passive’ (5.8.2) and -ˣkʰatsʰi ‘reciprocal’ (5.8.3).

5.8.1 -tso ‘causative’

The suffix -tsʰo ‘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. Ó dsɨ́néhi.
b. Oohííbyé oke dsɨ́netsóhi.

a.	ó	tsìːné-ʔì	‘I ran.’
	I	run-⟨t⟩	(intransitive)
b.	òːʔíː-pʲé	ò-<u>kʰè</u>	tsíːnè-<u>tsʰó</u>-ʔì	‘The dog made me run.’
	dog-⟨SgM⟩	I-objAn	run-caus-⟨t⟩	(transitive)

(254) a. Dsɨ́jɨ́veébe.
b. Dííbyeke dsɨ́jɨ́vétsoóbe.

a.		tsɨ́hɨ́βè-ːpè	‘He died.’
		die-⟨SgM⟩	(intransitive)
b.	tíː-pʲè-<u>kʰè</u>	tsɨ́hɨ́βé-<u>tsʰò</u>ːpè	‘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 ìŋɛ́ʔnì ‘ugly moral character’ and the animate mɛ̀-kʰɛ̀ ‘us’.

(255) Dííbyedívú oke ɨɨtetsoóbe.
tí-ːpʲè-tí-βʉ́ ò-kʰè ɨ́ːtʰè-tsʰò-ːpè
that-⟨SgM⟩-anim-goal I-objAn see-cause-⟨SgM⟩
'He showed me him (lit. He caused me to see him).'

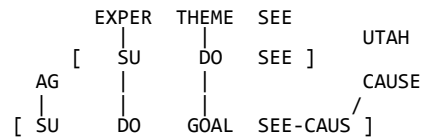

Figure 5.4 Grammatical relations: 'cause to see'

The grammatical relations of causatives are further discussed in section 10.3.3.

Adding -mɛi 'reflexive or passive' after -tsʰo 'causative' yields only the passive interpretation in which the subject (of the whole) is the causative agent (the one who caused the action):

(256) Ɨ́ñáhbedívú méénútsámeííbye.
ɨ́ Ⓖ ɲáʔpè-tí-βʉ́ mɛ́ːnʉ́-tsʰá-mɛ̀ɛ́-ːpʲè
self brother-anim-goal hit-caus-ɾ/p-⟨SgM⟩
'He$_i$ provoked his$_i$ brothers to beat him$_i$ up.' (lit. 'He$_i$ allowed himself$_i$ to be beaten up by his$_i$ brothers.')

If we assume that (1) when a transitive verb is made causative, its direct object is marked with -βʉ '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 -βʉ (-vu) (as in 256).

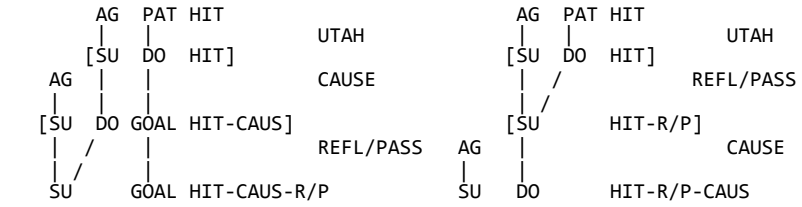

Figure 5.5 Grammatical relations: reflexive and causative

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.

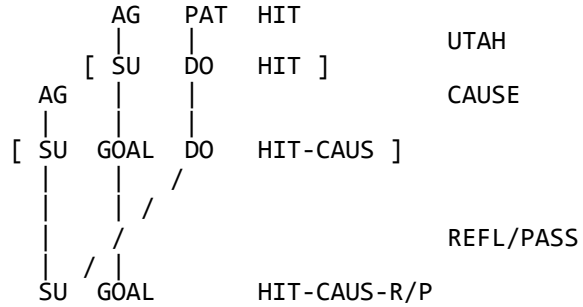

Figure 5.6 Another view of 'he allowed himself to be beaten'

We leave this question unresolved. Other examples of this type follow:

(257) Ó wáhdáhɬnútsámeíhi.
ó kpáˀtáʔɬnú-tsʰá-mɛ̀í-ʔì[17] 'I caused myself to be cut.'
I cut-caus-ɾ/p-⟨t⟩

(258) Ó táábótsámeítyé.
ó tʰá:pó-tsʰá-mɛ̀í-tʲʰɛ́ 'I am going to have myself treated.'
I cure-caus-ɾ/p-go.do

Likewise, when -ˣkʰatsʰi '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:

[17] In many cases the causative suffix has /o/, whereas in 263 and 257 it has /a/. This reflects the fact that most speakers of the Iñeje dialect apply a rule whereby -tsʰo becomes -tsʰa before -mèi.

(259) Tájtsɨɨ́ménemútsí tá́átsójcatsíhi.
tʰá ˣtsʰɪ̀ːmɛ́nɛ̀-mɯ́tsʰí tʰáː-tsʰó-ˣkʰàtsʰí-ʔì
my child-⟨DuM⟩ cry-caus-recip-⟨t⟩
'My children made each other cry.'

On the other hand, -tsʰo 'causative' *after* -mɛ̀i '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 wáhdáhɨ́númeíchoóbe.
ò-kʰɛ̀ kpáˀtáʔɨ́-nɯ́-mɛ̀í-tʃʰò[18]-ópɛ̀
I-objAn cut-mTr-ɾ/p-caus-⟨SgM⟩
a. 'He made me cut myself.'
b. *'He made someone cut me.'

The changes in grammatical relations can be understood as in figure 5.7:

```
   AG  PAT  CUT                    UTAH
   |   |
 [ SU  DO   CUT ]                  REFLEXIVE/PASSIVE
   | /
 [ SU       CUT-R/P ]
AG |                               CAUSE
|  |
SU DO       CUT-R/P-CAUSE
```

Figure 5.7 Grammatical relations: 'cause to cut oneself'

Likewise, -tsʰo '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.
mɯ́ˀtsʰì-kʲʰɛ̀ mɛ́ːnɯ́-ˣkʰàtsʰí-tʃʰòːpɛ̀ 'He made us (dual)
we(DuM)-objAn hit-recip-caus-⟨SgM⟩ hit each other.'

5.8.2 -mei 'reflexive or passive'

When -mɛi '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:

[18] In example 260 the causative suffix could also be -tsʰo.

(262) Ó wáhdáhɨ́númeí.
ó kpáʔtáʔɨ́-núɪ-mɛ̀ɛ́í
I cut-mTr-ɾ/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) Juuvárí íjcyaabe tsaapi dsɨ́jɨ́vétsámeííbye.
hùːβá-ɾí íˣkʲʰà-ːpè Ⓐ [tsʰà-ːpʰì tsɨ́hìβé-tsʰá-mɛ̀í]-ːpʲè
road-oblIn be-⟨SgM⟩ one-⟨SgM⟩ die-caus-ɾ/p -⟨SgM⟩
'In the road there is a person who {was killed / killed himself}.'

See section 5.8.1 regarding the interaction of -mɛi 'reflexive or passive' and -tsʰo 'causative'.

Some verbs appear to be the fusion of a root and the reflexive suffix. For example, kpakʰimʲɛ̀ɛ̀i 'work' was undoubtedly kpakʰi-mʲɛ̀ɛ̀i (work-ɾ/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 ɨˣtsʰamɛ̀ɛ̀i 'think', presumably from ɨˣtsʰa-mɛ̀ɛ̀i (think-ɾ/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 méénújcatsíhi.
tʰá Ⓖ ɲá-ʔpè-múɪtsʰí mɛ́ːnúɪ-ˣkʰàtsʰí-ʔì
my sib-⟨SgM⟩-⟨DuM⟩ hit-recip-⟨t⟩
'My two brothers are hitting each other (fighting).'

(265) Muhtsi méihjyúvájcatsí.
mùɪʔtsʰì mɛ́ ìʔhʲɯ́βá-ˣkʰàtsʰí-ʔ(ì) 'We two are speaking
we(Du) SAP speak-recip-⟨t⟩ to each other.'

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-ːpʲɛ̀ (Wákímyeííbye.)
work-⟨SgM⟩
a. 'He is working.'
b. 'He worked.'

Of course, the time reference may be made explicit by a time adverb, such as ìːhʲʉ̀ 'yesterday' in 267:

(267) Táñahbe wákímyeí iíjyu.

tʰá	Ⓖ ɲàʔpɛ̀	kpákʰímʲɛ̀í-ʔ	ìːhʲʉ̀	'My brother worked
my	brother	work-⟨t⟩	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* -Ⓛ◯ʔi ⟨t⟩ follows, the future morpheme is -i.[19] For example, consider 268b (in which -Ⓛʧɛ̀ ⟨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 /ːkʲʰɛ̀/ as does the "projected time" clitic (a formal difference).

(268) Íwajyámú { a. níjtyulle. / b. níjtyúille. }

í kpáh^{j}ámúɯ (self clothes)
{ a. níˣtʲʰɯ̀-ʧɛ̀ wash-⟨SgF⟩ 'She washes/washed her clothes'
b. níˣtʲʰɯ́-ì-ʧɛ̀ wash-fut-⟨SgF⟩ 'She will wash her clothes.' }

The tone of -i 'future' depends on the suffix that follows. In 268b it bears low tone because of -Ⓛʧɛ ⟨SgF⟩, but when followed by -Ⓛ◯mɛ ⟨AnPl⟩, it bears high tone: níˣtʲʰɯ̀-í-mʲɛ̀ 'they will wash'. This is further illustrated with -Ⓛtʰɯ 'negative' in example 269b:

(269) a. Nɨjtyúille íwajyámu.

b. Tsá dille níjtyúityú(ne) íwajyámu.

a. níˣtʲʰɯ́-ì-ʧɛ̀ wash-fut-⟨SgF⟩
b. tsʰáʔ tì-ʧɛ̀ níˣtʲʰɯ́-ì-tʲʰɯ́-(nɛ̀) not that-⟨SgF⟩ wash-fut-neg-⟨n⟩
} í kpáh^{j}ámɯ̀ (self clothes)

a. 'She will wash her clothes.'
b. 'She will not wash her clothes.'

Second, when the future tense suffix is followed by -Ⓛ◯ʔi ⟨t⟩, the future is indicated by -Ⓛ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. ò pʰéːʔì (o pééhi) 'I go.'
I go-⟨t⟩

b. ó pʰéːːʔì (ó peéhi) 'I will go.'
I go-fut-⟨t⟩

(271) a. ó àːʔíβɛ̀-tʰéʔì (Ó aahɨvetéhi.) 'I go to visit.'
I visit-go.do-⟨t⟩

b. ó àːʔíβéːːʔì (Ó aahɨvéteéhi.) 'I will go to visit.'
I visit-go.do-fut-⟨t⟩

The tone derivations of the verbs in 271 are given in figure 5.8. See also examples 272–274 and 1111, page 430.

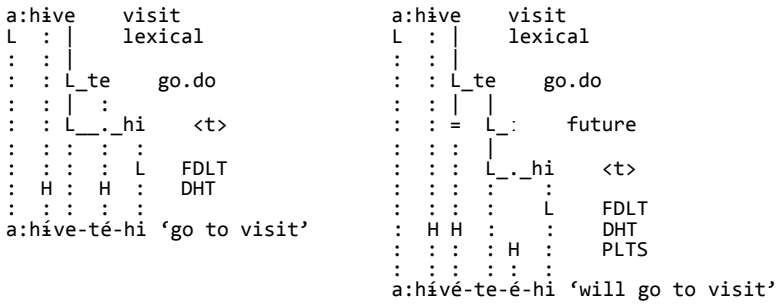

Figure 5.8 TD: *a*:hɨ́vetéhi, *a*:hɨ́véteéhi

(272) a. Ó nijtyú táwajyámu.

b. Ó níjtyuú táwajyámu.

a. ó nìˣtʲʰɯ́-ʔ tʰá kpa͡hʲámɯ̀ ‘I wash(ed) my clothes.’
I wash-⟨t⟩ my clothes

b. ó níˣtʲʰɯ̀ɯ-ɯ́-ʔ tʰá kpa͡hʲámɯ̀ ‘I will wash my clothes.’
I wash-fut-⟨t⟩ my clothes

(273) a. ó màˣʧʰó-ʔì (Ó majchóhi.) ‘I eat.’
I eat-⟨t⟩

b. ó máˣʧʰò-ó-ʔì (Ó májchoóhi.) ‘I will eat.’
I eat-fut-⟨t⟩

(274) a. ó máˣʧʰò-tʰé-ʔì (Ó májchotéhi.) ‘I go to eat.’
I eat-go.do-⟨t⟩

b. ó máˣʧʰó-tʰè-é-ʔì (Ó májchóteéhi.) ‘I will go to eat.’
I eat-go.do-fut-⟨t⟩

5.9.3 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: -Ⓛ◯pʰɛ ∼ -Ⓗσ̀, 'remote past', -(ʔ)nɛ 'recent past', and -i(íkʲʰɛ) '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) ∼ -Ⓗ$^{\text{L}}$σ ‘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 -Ⓗ$^{\text{L}}$σ form (1) imposes a high tone on the preceeding 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. Táñahbée meenú ihjya.

a. tʰá Ⓖ ɲa$^{\text{L}}$-ʔpɛ́-pʰɛ̀
b. tʰá Ⓖ ɲa$^{\text{L}}$-ʔpɛ́$^{\text{H}}$-ɛ̀$^{\text{L}}$
my sib-⟨SgM⟩-rem

} mɛ̀ːnɯ́-ʔì ʔì$^{\text{G}}$ hʲà
make-⟨t⟩ self house

‘My brother made his house (some time ago).’

(276) a. Aanéhjápe úmɨvaábe.
b. Aanéhjáa úmɨvaábe.

a. à:-né-ʔhá-pʰɛ̀
b. à:-né-ʔhá$^{\text{H}}$-a̰$^{\text{L}}$
thm-⟨ø⟩-nwit-rem

} úmɨ́βà-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 ∼ -hne ‘recent past’

The clitic -$^{(ʔ)}$nɛ (-ne ∼ -hne) ‘recent past’ (rec) indicates that the event happened recently, as illustrated in 279–283:

(279) Táñahbéne meenú ihjya.

tʰá Ⓖ ɲa$^{\text{L}}$-ʔpɛ́-nɛ̀ mɛ̀ːnɯ́-ʔì ʔì$^{\text{G}}$ hʲà
my sib-⟨SgM⟩-rec make-⟨t⟩ self house
‘My brother recently made his house.’

(280) tì-ːpʲɛ́-nɛ̀ mɛ̀ːnɯ́-ʔì (Diibyéne meenúhi.) ‘He recently made it.’
that-⟨SgM⟩-rec make-⟨t⟩

(281) ò-ˀné ó mɛ̀ːnúɯ́-ʔì (Ohné ó meenúhi.) ‘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-ːpʲé-nɛ̀ɛ́-ˣ (Diibyéneéj.) ‘He (recently).’
that-⟨SgM⟩-rec-voc

(283) ò-ˀnɛ̀-ˣ (Ohnej.) ‘I (recently).’
I-rec-voc

(See section 10.9 regarding the [ˣ] (j) glossed ‘vocative’.)

5.9.3.3 -i ∼ -iíkye ‘projected time (PT)’

The clitic -ì[20] (-i) ∼ -ìːkʲʰɛ̀ (-iíkye) ‘projected time’ may indicate that an event is about to happen, as in 284:

(284) tʰá Ⓖ ɲ̀a-ˀpɛ́-ì̲
my sib-⟨SgM⟩-PT

a. pʰɛ́-hɯ̀ɯkʰóː-ʔì (Táñahbéi péjucóóhi.)
go-now-⟨t⟩
b. pʰɛ́-hɯ́ɯkʰò-ó-ʔì (Táñahbéi péjúcoóhi.)
go-now-fut-⟨t⟩

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 pʰɛ́-hɯ̀ɯkʰóː-ʔì (O péjucóóhi.) ‘I am going now.’
I go-now-⟨t⟩

b. ó-ì̲ ò̲ pʰɛ́-hɯ̀ɯkʰóː-ʔì (Ói o péjucóóhi.) ‘I am now
I-PT I go-now-⟨t⟩ about to go.’

The clitic -ì ∼ -ìːkʲʰɛ̀ ‘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-ì̲ tì-pʲɛ̀ máˣʧʰò-tʰɯ́-(nɛ̀)
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:

[20] See footnote 19.

(287) Diibyéi méénuúhi.
tì-ːpʲé-ì[21] mɛ́ːnɯ̀-ɯ́-ʔì ‘He still expects to do it.’
that-⟨SgM⟩-PT do-fut-⟨t⟩

The clitic -ìːkʲʰɛ̀ ‘PT’ may be used for single-word replies to questions:

(288) ó(ː)-ìːkʲʰɛ̀ (óiíkye or óóiíkye) ‘I (projected time).’
I-PT

(289) tsʰ^{H}aʔá-ìːkʲʰɛ̀ (tsáháiíkye) ‘not yet’
not-PT

5.10 Aspect

Aspect is indicated by the system of singular versus multiple action verbs and by -ʔiˣkʲʰa ‘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 -ʔiˣkʲʰa ‘habitual’

The verb iˣkʲʰa (ijcy*a*) ‘be’ has an affixal form -ʔiˣkʲʰa (-hijcy*a*) 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:

[21] 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:

tí-ːpʲɛ̀-ɾɛ̀ pʰéhɯ̀kʰóːʔì. ‘Only he is going.’
that-⟨SgM⟩-only go-now-⟨t⟩

(290) Dííbyéhijcy*a* m*a*jchópíwu.
tí-ːpʲé-ʔìˣkʲʰà màˣʧʰó-pʰí-kpɯ ‘He is a glutton’
that-⟨SgM⟩-hab eat-excess-aug

(291) Dííbyéhijcy*a* *á*vyet*a* ími.
tí-ːpʲé-ʔìˣkʲʰà áβʲètʰà ímì ‘He is always very good.’
that-⟨SgM⟩-hab very good

In 292a -ʔiˣkʲʰa occurs on the predicate complement rather than the subject. (292b and c are given for comparison.)

(292) a. Ehdúhijcy*a* dííbye.
b. Ehdu íjcy*aá*bye.
c. Ehdu dííbye íjcy*a*.

a. è-ˀtɯ́-ʔìˣkʲʰà tí-ːpʲè ‘That’s how he is.’
that-⟨like⟩-hab that-⟨SgM⟩

b. è-ˀtɯ̀ ˣkʲʰà-ːpʲè ‘He is like that.’
that-⟨like⟩ be-⟨SgM⟩

c. è-ˀtɯ̀ [tí-ːpʲɛ̃ᴳ ˣkʲʰà] ‘His life (existence)
that-⟨like⟩ that-⟨SgM⟩ existence is like that.’

In 293 -ʔiˣkʲʰa 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) Okéhijcy*a* ditye *á*jcune.
ò-kʰɛ́$_i$-ʔìˣkʲʰà [tì-tʲʰè ø$_i$ a̋ˢˣkʰɯ̀]-nè
I-objAn-hab that-⟨AnPl⟩ give -⟨ø⟩
‘They always give to me.’ (lit. ‘It is to me that they give it.’)

Quite transparently, -ʔiˣkʲʰa is the verb iˣkʲʰa ‘be’ preceded by a complement-terminating -ʔ (the same ʔ that terminates predicate adjectives, as discussed in section 7.8.3). This analysis is reflected in 294:

(294) Ó pehíjcy*á* mújcojúvu.
ó pʰè-ˀ ˣkʲʰá-ˀ múˣkʰòhú-βɯ̀
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) méícyahíjcyáhi
   mɛ́ íkʲʰà-ʔ íˣkʲʰá-ʔì 'we are continually being…'
   SAP be-PredAdj be-⟨t⟩
   ícyahíjcyátsihdyu
   íkʲʰà-ʔ íˣkʲʰá-tsʰì-ʔtʲù 'upon that having been done'
   be-PredAdj be-⟨place⟩-sou

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 ávúhcúhíjcyaá paíjyuváré tééhí pañétu.
   tʰá ɪ̱ːŋúhɨ-βùɯ ò pʰɛ́-kʰòːkʰà ó́ áβúɯʔkʰúɯ-ʔ íˣkʲʰà-ːˑ-ʔ
   my land-goal I go-when I bathe-PredAdj be-fut-⟨t⟩
   pʰà-íhʲù-βá-ɾɛ́ tʰɛ́ːʔí Ⓖ pʰǎŋɛ́-tʰùɯ
   all-⟨time⟩-pl-only river inside-sou
   'When I go to my land, I will bathe every day in the river.'

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: -hijcya. Other examples are given in 297 and 298:

(297) Paíjyuváré ó pehíjcyá mújcojúvu.
pʰà-íhʲù-βá-ɾɛ́ ó pʰɛ̀-ʔíˣkʲʰá-ʔì múɯˣkʰòhúɯ-βùɯ
all-⟨time⟩-pl-only I go-hab-⟨t⟩ port-goal
'I go to the port every day.'

(298) Cóómívu ipyéécooca wákímyeíhíjcyáiíbye.
kʰóːmí-βùɯ ì pʲʰɛ́ː-kʰòːkʰà kpákʰímʲɛ̀í-ʔíˣkʲʰá-ì-ːpʲɛ̀
town-goal self go-when work-hab-fut-⟨SgM⟩
'When he goes to town, he will work regularly.'

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 (:) 'now'

The verbal suffix -Ⓛ◯hɯ̱̀kʰo: 'now' is obviously related to the clitic -Ⓛ◯hɯ̱́kʰo '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 -hɯ̱̀kʰo: 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 -hɯ̱̀kʰo: is translated 'already') and the negative, as in 300 (where it is translated 'yet'). See also 222, page 129, and 761, page 306.

(299) màˣʧʰó-hɯ́kʰò-ːpɛ̀ (Majchójúcoóbe.) 'He has already eaten.'
eat-now-⟨SgM⟩

(300) máˣʧʰó-hɯ̀kʰó-ːpɛ̀-híːβà (Májchójucóóbejɬɬva.)
eat-now-⟨SgM⟩-neg
'He has not yet eaten.'

5.12.1.2 -ɾo ∼ -ɾa ∼ -yo ∼ -ya 'frustrative, contraexpectation'

The suffix -ɾo ∼ -ɾa ∼ -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, -ɾà ∼ -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-ì-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-ì-jó-mɛ̀ 'They would like to eat
eat-fut-frs-⟨AnPl⟩ (but there isn't anything).'

The suffix -ɾa ∼ -ɾo 'frustrative, contraexpectation' may also express an unfulfilled desire (somewhat like a subjunctive):

(305) Úúma o pééiyáhi.
úː-mà ò pʰɛ́ː-ì-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 -ɾo 'frustrative, contraexpectation':

(306) Chéméroobe wákímyeítyéhi.
ʧʰémɛ́-ɾò-ːpɛ̀ kpákʰímʲɛ̀í-tʲʰɛ́-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 adverbial 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) ímíˀ kpákʰímʲéì-ːpʲè (Ímí wákímyéiíbye.) 'He works well.'
good work-⟨SgM⟩

(308) ɨ́ːkʰɯ́ìˀ tsʰà-ːpè (ɨ́ɨcúi tsaábe.) 'He came quickly.'
quick come-⟨SgM⟩

(309) ɨ́ːkʰɯ́ì mè áˀtò (ɨ́ɨcúi meáhdo.) 'Hurry and pay.'
quick SAP pay

An adverb may indicate *when* the event took place:

(310) Péjcore eene méénúiíbye.
pʰɛ́ˣkʰòɾɛ̀[22] èː-nè mɛ́ːnú-ì-ːpʲè 'He will make that (medial) thing tomorrow.'
tomorrow that-⟨ø⟩ make-fut-⟨SgM⟩

Time adverbs may be restricted as to the tense with which they co-occur. For example, ìːhʲɯ́-ìhʲù 'yesterday' may not co-occur with the future (311b) and pʰɛ́ˣkʰòrò 'tomorrow' may not co-occur with the present-past (311d), as shown in 311:

(311) ìːhʲɯ́-ìhʲù ò
yesterday I
- pʰéː-ʔì
  go-⟨t⟩
- *pʰè-é-ʔì
  go-fut-⟨t⟩

Iijyúijyu o
- a. péé 'I went
- b. *peé yesterday.'

pʰɛ́ˣkʰòɾò ó
tomorrow I
- *pʰéː-ʔì
  go-⟨t⟩
- pʰè-é-ʔì
  go-fut-⟨t⟩

Péjcoro ó
- c. *péé 'I will go
- d. peé tomorrow.'

An adverb may indicate *how long* the event persisted, as in 312:

(312) Tsúúcaja íjcyaabe aáhɨ.
tsʰɯ́ːkʰàhà íˣkʲʰà-ːpè àːʔì 'He was at home a long time.'
long.time be-⟨SgM⟩ home

An adverb may indicate *where* the event took place, as in 313:

[22] pʰɛ́ˣkʰòrɛ̀ 'tomorrow' may derive from pʰɛˣkʰo 'night' and -ɾɛ 'only'.

(313) Tsá dibye téhulle íjcyatú.
tsʰa̋ʔ tì-pʲè tʰé-ʔù̀ʊ̀ʧɛ̀ íˣkʲʰà-tʰʊ́ ‘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.
tsʰí-ʔù̀ʊ̀ʧɛ̀ kpákʰímʲɛ̀í-ːpʲè ‘He is working far off.’
other-⟨yonder⟩ work-⟨SgM⟩

An adverb may indicate *how many times* the event happened:

(315) Tsáijyúré peebe téhullévu.
tsʰá-ìhʲʊ́-ɾé pʰè-ːpè tʰé-ʔù̀ʊ̀ʧɛ́-βʊ̀
one-time-only go-⟨SgM⟩ that-yonder-goal
‘He went over there only once.’

An adverb may indicate *why* something happened:

(316) Téénéllii tsá tsɬɬmene májchotú.
tʰé:-nɛ́-ʧì: tsʰa̋ʔ tsʰí:mɛ̀nɛ̀ máˣʧʰò-tʰʊ́
that-⟨ø⟩-motive not child eat-neg
‘For that reason the child does not eat.’

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?
mʊ́ìhʲʊ́ tsʰá:-ì-ːpʲè tí: Ⓖ kʲʰá:nìí
when come-fut-⟨SgM⟩ your father
‘When does your father come?’

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 ìá:pè ‘animal’.

(318) áβʲɛ̀tʰà kpákʰímɛ̀í-ːpʲè (Ávyeta wákímeííbye.) ‘He works
very.much work-⟨SgM⟩ hard.’

(319) áβʲɛ̀tʰà ímíʔ kpákʰímɛ̀í-ːpʲè (Ávyeta ímí wákímeííbye.)
very.much good work-⟨SgM⟩
‘He works very well.’

(320) áβʲètʰà ímíʔ tì-ːpʲè (Ávyeta ímí diíbye.) ‘He (is)
very.much good that-⟨SgM⟩ very good.’

(321) áβʲétʰá ìá-ːpɛ̀ (Ávyétá iáábe.) ‘He (is) a brute.’
very.much animal-⟨SgM⟩

In 322 áβʲètʰà ‘very (much)’ works together with -hɯ̀kʰo ‘focus’ to indicate the sentence’s veracity. Both modify the predicate, which is the noun tì-ːpʲè ‘he’:

(322) Ávyeta diibyéjuco.
áβʲètʰà tì-ːpʲé-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 úllehíjcyáhi.
áβʲètʰà èhéʔ-éhéʔ ó ɯ́tʃè-ʔ íˣkʲʰá-ʔì
very.much cough–cough I walk-PredAdj be-⟨t⟩
‘I am walking, coughing a lot.’

(324) ‘Machóhmáchó’ diíbye.
màtʃʰóʔ-mátʃʰóʔ tì-ːpʲè ‘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 6.1 Animate classifiers

	1 classifier subject, relative clause	2 pronoun, adjective, nonfinite verb	3 numeral phrase, quantifier
SgM	-Ⓛ:pʰɛ (-:be)		-ˣpʰi (-jpi)
SgF	-tʃɛ (-lle)		-ˣpʰi-tʃɛ (-jpille)
DuM	-mɯ́-tsʰi (-mútsi)	-⁽ˣ⁾tʰé-tsʰi (-jtétsi)	
DuF	-mɯ́-pʰɨ (-múpɨ)	-⁽ˣ⁾tʰé-pʰɨ (-jtépɨ)	
AnPl	-Ⓛ◯mɛ (-me)	-⁽ˣ⁾tʰɛ (-jte)	-mɛ (-me)

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 -Ⓛ◯mɛ ⟨AnPl⟩, 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 -Ⓛ:pʰɛ̀ ⟨SgM⟩ 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:
   -tsʰɨ ⟨baby⟩, e.g., tʰɛ̀-tsʰɨ̀ 'that baby';
   -o:ʔi ⟨jaguar⟩, e.g., tʰé-o̲:ʔì 'that jaguar (or dog)';
   -kʰɛ:mɛ ⟨old man⟩, e.g., tʰé-ˣkʰɛ̀:mɛ̀ 'that old man';
   -kʰo ⟨squirrel⟩, e.g., né:pʰi̲-kʲʰò 'squirrel';
   and perhaps a few other animals. All other classifiers are inanimate.

[1] Table 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).

[2] We hedge because example 852 may mean something like 'You are going like someone who has not eaten?!' If this is the case, then -Ⓛ:pʰɛ̀ ⟨SgM⟩ 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) tʰá:pò-:pɛ̀ (táábooˊbe) 'He cures.'
tʰá:pò-ʧɛ̀ (táábolle) 'She cures.'
tʰá:pò-mútsʰì (táábomútsi) 'They (DuM) cure.'
tʰá:pò-múpʰɨ̀ (táábomúpɨ) 'They (DuF) cure.'
tʰà:pó-mɛ̀ (taabóme) 'They (AnPl) cure.'

(326) a. ímípà-:βʲé-mɛ̀ (Ímíbaavyéme.) 'They are fixed.'
fix-sIn-⟨AnPl⟩
b. ʧʰɛ̀mé-mɛ̀ (Cheméme.) 'They are sick.'
be.sick-⟨AnPl⟩

The classifiers of column 1 are also used to head relative clauses, as illustrated by -:pɛ ⟨SgM⟩ in 327 and -Ⓛ◯mɛ ⟨AnPl⟩ in 328. (Note: the verb of the relative clause bears the initial high tone characteristic of subordinate clauses, here represented by S.) See also example 331a below.

(327) O úwáábooˊbe diityéké o néehiíí...
[òᵢ ˢúkpá:pò]-:pɛ̀ᵢ tì-:tʲʰé-kʰé ò né:-ʔìí…
I teach -⟨SgM⟩ that-⟨AnPl⟩-objAn I say-⟨t⟩
'I who teach (them) say to them…'

(328) a. ˢímìpá-:βʲè-mɛ̀ (ímibáávyeme)
b. ʧʰˢɛ́mè-mɛ̀ (chémeme)

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 tʰa:po 'treat, medicine' with the words in 329 (in which the nominalization low tone is represented with N):

(329) a. tʰᴺá:pó:pɛ̀ (taabóóbe) 'doctor (SgM)'
b. tʰᴺá:póʧɛ̀ (taabólle) 'doctor (SgF)'
c. tʰᴺá:póˣtʰé-tsʰì (taabójtétsi) 'doctors (DuM)'
d. tʰᴺá:póˣtʰé-pʰɨ̀ (taabójtépɨ) 'doctors (DuF)'
e. tʰᴺá:póˣtʰè (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) ím^{N}ɪpáˣtʃʰò-ˣtʰɛ̀ (ímibájchojte) ‘fixers’
fixing-⟨AnPl⟩
ɯ̃^{N}kpá:pò-ˣtʰɛ̀ (uwáábojte) ‘teachers’
teaching-⟨AnPl⟩

In 331a, -ˣtʰɛ ⟨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 -ˣtʰɛ 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. [ámɯ́ʔà-kʲʰɛ̀ ò kpa̲^{S}hʲɯ̀]-mɛ̀-ˣ , mé ɯ̀kʰá:βɛ̀ (relative
youPl-objAn I esteem-⟨AnPl⟩-voc SAP enter clause)

b. mé ɯ̀kʰá:βɛ̀ , tʰá kpa̲^{N}hʲɯ́-t̲ʰɛ̀-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:[3]

(332) a. tì-:tʲʰɛ̀ (that-⟨AnPl⟩ diítye) ‘they’
b. í-ˣtʲʰɛ̀é (self-⟨AnPl⟩ íjtyeé) ‘these/those (AnPl)’
c. à:-:tʲʰɛ̀ (thm-⟨AnPl⟩ aátye) ‘those (afore-mentioned AnPl)’
d. kʰà-:tʲʰé (which⟨AnPl⟩ caatyé) ‘which (AnPl)’
e. tʰàʔɲé-ˣtʰɛ̀ (mine-⟨AnPl⟩ tahñéjte) ‘my (people or animals)’
f. tsʰà-:tʰɛ̀ (some-⟨AnPl⟩ tsaáte) ‘some (people or animals)’

And they are used with (bound or free) adjectives and nouns, as illustrated with -ˣtʰɛ ⟨AnPl⟩ in the following:

ímɨ^{L}á-ˣtʰɛ̀ (ímɨájte) ‘kind people, good people or animals’ from ímìà ‘truth, goodness’
í-pàʔrí-ˣtʰɛ̀ (íbahríjte) ‘the short ones of a group’ from pàʔrì ‘short’
átʰérɛ́è-ˣtʰɛ̀ (átéréejte) ‘ones (AnPl) having no value’ from átʰérɛ́è ‘without value, despicable’

[3]Note that the [ˣ] of -ˣtʰɛ 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) tsʰà-ːpʰì (tsa*á*pi) ‘one (masc.)’
tsʰá-ːpʰìtʃè (tsá*á*pille) ‘one (fem.)’

(334) pʰápʰìʔtʃʰúːmè-βà (p*á*pihchúúmev*a*) ‘three (live beings)’
three-⟨AnPl⟩-plQ
pʰɨ́ːnéèʔóˣtsʰɨ́-mè-βà (pɨ́ɨ́néehójtsɨ́mev*a*) ‘four (live beings)’
four-⟨AnPl⟩-plQ

For other examples, consider the following:
In 479, page 218, -tʲʰɛpʰɨ ⟨DuF⟩ is used on the number mɨ́ː ‘two’ and -mɯpʰɨ ⟨DuF⟩ occurs on the noun kpátʃè ‘woman’.
In 480, page 218, -mɛ ‘AnPl’ follows the numeral phrase …pʰápʰìʔtʃʰúː while -mɯ occurs on the noun kpátʃè ‘woman’.
In 392, page 191, -mɛ follows the numeral phrase tsʰá-ʔòˣtsʰɨ́ while -mɯ follows the noun kpàˣpʰíː ‘man’.

The classifiers of column 3 are also used on quantifiers, for example:

(335) mítʲʰà-mè	(many-⟨AnPl⟩	mítya*m*e)	‘many (live
pʰá-mè-ːɾè	(all-⟨AnPl⟩-only	pámeére)	‘everyone, all (living)’
àpʰáː-mʲɛ́-ɾè	(many-⟨AnPl⟩-only	ap*á*á*m*yére)	‘only them’
ájà-mè	(few-⟨AnPl⟩	á*y*a*m*e)	‘few’
ùʔhé-mè	(few-⟨AnPl⟩	uhjéme)	‘few’
pʰíβá-mè-βà	(many-⟨AnPl⟩-plQ	píva*m*ev*a*)	‘numerous’

Pronominal roots like ti- ‘that’ generally take the classifiers of column 2. However, aː- ‘aforementioned’ and tsʰi- ‘other’ may take those of column 3 (classifiers typically used with quantifiers and numerals):

(336) àː-mè (thm-⟨AnPl⟩ *aa*me) ‘those (aforementioned)’

(337) tsʰì-ˣpʰì (other-⟨SgM⟩ tsijpi) ‘other male’
tsʰí-ˣpʰìtʃè (other-⟨SgF⟩ tsíjpille ‘other female’

6.1.1.2 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:

(338)	-ʔɛ(ː)	(-he)	⟨tree⟩	
	-kʰo(ː)	(-co)	⟨stick⟩	(stick-like thing)
	-ʔaːmɨ	(-haamɨ)	⟨leaf⟩	(leaf-like thing such as paper, book,…)
	-kpa	(-wa)	⟨slab⟩	(slab-like thing such as tables, doors,…)
	-pa	(-ba)	⟨box⟩	(things that are like a box)
	-hɨ	(-jɨ)	⟨disk⟩	(flat, thin disk-like things, such as pills, fields,…)
	-mɨ(ː)	(-mɨɨ ∼ -mɨ)	⟨canoe⟩	(canoe or other means of transportation),
	-iːʔʲo	(-iihyo)	⟨stick⟩	(something long and slender)

A particularly 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 ɨ̀βoʔo- in íβòʔó-ːβɛ̀ (lie.face.down-sIn) 'lie face down'. To this root we can add -ːɯ 'DVC' to form the classifier -ɨβoʔo-ːɯ 'something tipped upside down'. This classifier could then be used to form a noun phrase like tʰɛ́-ɨ̀βóʔò-ːɯ 'that face-down thing'. Other examples: -àβóʔò-ːɯ̲ 'something covered', as in í-àβóʔòː-ɯ̀ (*íavóhoóu*) 'this covered thing';[4] -kʰàtsɯ́tsɯ̀-ːɯ̲ 'something shrunk', as in ɛ́-kʰàtsɯ́tsɯ̀-ːɯ̀ (*écadsúdsuúu*) 'that shrunken thing'.[5]

A sentence illustrating the use of a classifier derived with -ːɯ '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.

[4] Compare áβòʔó-ːβɛ̀ (*ávohóóve*) 'be covered (sIn)'.

[5] Compare kʰátsɯ̀tsɯ́-ːβɛ̀ (*cádsudsúúve*) 'shrink (sIn)'.

In a few cases a classifier is derived from a verb by the addition of a classifier. For example, the classifier -kʰàʔmá-i̲ ‘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. kʰàʔmá-ːβè (caɦmááve) ‘become close together’
stack-sIn
b. pʰá-kʰàʔmá-ì (pácaɦmái) ‘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:

#	[V		σ(X)]
		⇳	
#	[classifier		σː(X)]

Figure 6.1 Classifiers derived from verb roots by length

For example, consider the verb ʧʰèɾé-ːβè ‘split (sIn)’, the root of which is ʧʰɛɾɛ-. The classifier is derived by lengthening the first vowel: /-ʧʰɛ̲ːɾɛ/ ⟨crack⟩ (a split or crack); for example, í-ʧʰèːɾè ‘this crack’. Other examples follow:

-ʧʰaːha ‘something rotten’ from ʧʰaha- ‘to rot’; e.g., í-ʧʰàːhà (íchaájə) ‘this rot’.

-tsɛːɾɛ ‘sharp sound’ from tsɛɾɛ- ‘to sound sharp and penetrating’, as in 340:

(340) ¿Á ú lleebó tédseére?
á ʉ́ ʧèːpó-ʔ tʰé-ts̲èːɾè̲
ques you hear-⟨t⟩ that-⟨sharp.sound⟩
‘Did you hear that sharp sound?’

-noːɾa ‘hole made by penetrating the surface’ from noɾa- ‘to break through’, as in 341:

(341) Ó ájtyumɨ́ ténoora juuváyí ɨɨju nóraavéne.
ó áˣtʲʰʉ̀mɨ́-ʔ tʰé-n̲òːɾà Ⓐ [hʉ̀ːβá-jí ɨ̀ːhʉ̀
I see-⟨t⟩ that-⟨hole⟩ trail-oblIn horse
nóɾà-ːβé-nè]
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 -ʉ ‘DVC’, by adding a classifier, or by lengthening the root’s first vowel—is not a pro-

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':
-tɨ́pé:ùɯ 'something held in a vise or between the lips or teeth'
-tɨ́mɯ́mùː:ùɯ '…as when the upper teeth bite the lower lip'

tʰà- 'do with the foot'
-tʰàɾíhʲà:ùɯ 'standing with the legs apart'
-tʰàˣkʰîùɯ ~ -tʰàˣkʰípà 'a person or animal with very thick legs'
See also the noun tʰáˣkʰìː (tájkii) 'leg'.

kʰi- 'do with some cutting tool'
-kʰìːtʲʰúɾùɯhɨ 'a flat cut all around something round'
-kʰìʔtʲá?ɨ:ùɯ 'shaped like a very staight-cut board'
-kʰìːtʲʰúɯ 'a notched-cut all around something round (e.g., a tree)'
-kʰìʔβɯ́hɨ 'a ladies short haircut'
See also the noun kʰíʔtʲà?ɨ́nɯ̀hɨ (kíhdyahɨ́nujɨ) 'saw'.

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 6.2 Classifiers for which there is a corresponding root

CLASSIFIER		ROOT		GLOSS
-hɯ	(-ju)	/hɯ̀ː βà/	(juúva)	'trail'
-tsʰɨ	(-tsɨ)	/tsʰìːmɛ̀/	(tsɨ́me)	'children'
-mo	(mo)	/móːà/	(móóaá)	'big river'
-mɨ	(mɨ)	/mɨ̀ːnɛ̀/	(mɨ́ne)	'canoe'
-po	(bo)	/póːà/	(bóóaá)	'boa'

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. …σ-σ## Monosyllabic classifiers place a low tone on their host's final syllable.

2. Bisyllabic classifiers:

a. ##σ-σσ## After a monosyllabic host a bisyllabic classifier bears a low tone on its initial syllable.

b. …σσ-σσ## After a polysyllabic host a bisyllabic classifier imposes a low tone on the host's final syllable.

3. …σ-σσσ… 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

HOST (modifier)	CLASSIFIER (head)		
	σ#	σσ#	σσσ(…)
#σ	σ · σ	ó · σ σ	ó · σ ó σ(…)
#σσ	ó σ · σ	ó σ · ó σ	σ ó · σ ó σ(…)
(…)σσσ	(…)σ ó σ · σ	(…)σ ó σ · ó σ	(…)σ σ ó · σ ó σ(…)

A monosyllabic classifier (case 1) is illustrated in 342:

(342) a. ts^{h}ì:-kpà (tsiíw*a*) 'other slab'

b. í-kpà (íw*aá*) 'that slab'

c. ts^{h}úː k^{h}á-à-kpà (tsúúc*áa*w*a*) 'old slab'

d. ts^{h}íɛ́mɛ́-kpà (tsíemέw*a*) 'some kind of slab'

In 342a and 342c, Ⓒ dock's on the host's final syllable. In 342b Ⓒ is blocked by the host's lexically marked high tone, and in 342d Ⓒ is blocked by the host's lexically marked low tone. The tone derivations of ts^{h}ì:-kpà and í-kpàá are given in figure 6.2 and those of ts^{h}úː k^{h}á-à-kpà and ts^{h}íɛ́mɛ́-kpà in 6.3:

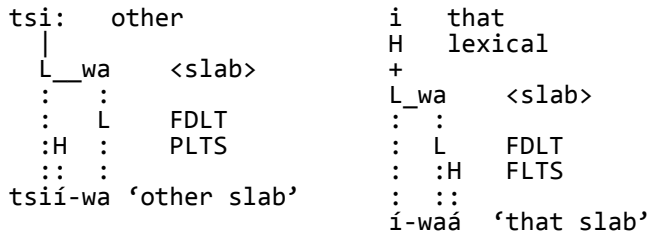

Figure 6.2 TD: tsiíwa, íwaá

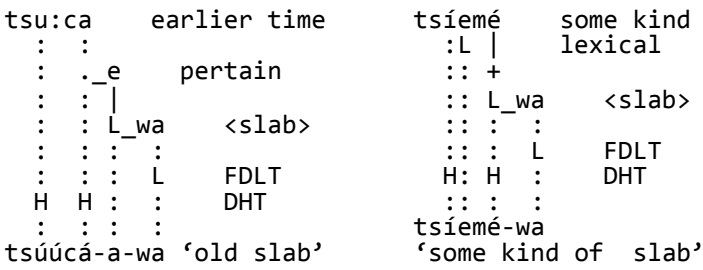

Figure 6.3 TD: tsúúcáawa, tsíeméwa

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. tsʰí-ʔ^{C}ạ:mɨ̀ (tsíhaámɨ́) 'other leaf'
b. ^{H}ɪ́-ʔ^{C}ạ:mɨ̀ (íhaámɨ́) 'that leaf'
c. tsʰúː kʰá-^{C}ạ́-ʔá:mɨ̀ (tsúúcáahɨ́ámɨ́) 'old leaf'
d. tsʰíɛ́mɛ́-ʔá:mɨ̀ (tsíeméhɨ́ámɨ́) 'some kind of leaf'

A polysyllabic classifier (case 3) is illustrated in 344:

(344) a. tsʰí-^{C}ạ:máì (tsíaamái) 'other row'
b. ^{H}ɪ́-^{C}ạ:máì (íaamái) 'that row'
c. tsʰúː kʰá-á-^{C}ạ́:máì (tsúúcááaamái) 'old row'
d. tsʰíɛ́mɛ́-^{C}ạ́:máì (tsíeméaamái) '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 -ʔɛ̀ ⟨tree⟩ docks on the host's final syllable and blocks the © of -ʔà:mɨ̀.

(345) ʧámáːɾ^{C}ạ́-ʔɛ́-ʔá:mɨ̀ (llámáárahéhɨ́ámɨ́) '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 [$_{NP}$ NP$_{modifier}$ N$_{head}$].
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 ⟨ø⟩, 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 -Ⓛːpɛ ⟨SgM⟩, -Ⓛʧɛ̀ ⟨SgF⟩, and -Ⓛ◯mɛ ⟨AnPl⟩:

(346) a. tʰáːpò-ːpɛ̀ (Táábooóbe.) 'He treats (medically).'
b. tʰáːpò-ʧɛ̀ (Táábolle.) 'She treats (medically).'
c. tʰàːpó-mɛ̀ (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 classsifer is in -Ⓛ◯nɛ

(347) àtʃé-nɛ̀ (Alléne.) 'It is raining.'
rain-⟨ø⟩

(348) àβʲé-nɛ̀ (Avyéne.) 'It hurts.'
suffer.pain-⟨ø⟩

(349) áíːβʲè-ʔɛ̀ (Áíívyehe.) 'The tree is burning.'
burn-⟨tree⟩

(350) Ímíívyémeíja.
ímí-ːβʲé-mɛ̆́ˡí-hà 'The shelter (clothes,…)
finish-sIn-ɾ⁄p-⟨shelter⟩ 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 mìtʲʰà 'big':

(351) a. mítʲʰà-ʔɛ̀ (mítyahe) 'big tree'
big-⟨tree⟩
b. mítʲʰà-kpà (mítyawa) 'big slab (plank, table,
big-⟨slab⟩ machete,…)'
c. mítʲʰà-ʔáːmɨ̀ (mítyahɑ́ɑ́mɨ) 'big leaf (paper,
big-⟨leaf⟩ book,…)'

(352) pʰáɲétʰúɪ̀è-ʔáːmɨ̀ (páñétúehɑ́ɑ́mɨ) 'main leaf (paper, book,
main-⟨leaf⟩ letter,…)'

(353) átʰéɾéɛ̀-kpà (átéréewa) 'worthless slab (plank,
worthless-⟨slab⟩ bench,…)'

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) úméhewa átéréewa
úmé-ʔɛ̀-kpà Ⓐ átʰéɾéɛ̀-kpà 'a worthless
tree-⟨tree⟩-⟨slab⟩ worthless-⟨slab⟩ plank'

[6]Schematically: $[_{NP}$ X-classifier$]_i$ Ⓐ $[_{NP}$ Y_{Adj}-classifier$]_i$

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, ʉ́mɛ̀-, ɨ́nà- and mɨ́nɛ̀- never occur except when followed by a classifier, as in ʉ́mɛ̀-ʔɛ̀ 'tree', ɨ́nà-ʔáːmɨ̀ 'leaf', and mɨ́nɛ̀-ˣtʰɛ̀ 'peccary'.

Other bound nouns are: pòʔtʰá- 'dish', kʰànɛ́- 'cup', tɛ̀íhʲùː- 'spoon', ìˣtʲʰá- 'starch', ìjá- 'animal', hʲéː- 'pet', móːʔó- 'vine', níːkpá- 'head', nʉ́- 'water', òːʔí- 'jaguar', pʰìːhʲʉ́- 'hook', ɾáːtʰá- 'can', tʰòˣpʰá- 'partridge', tʰéː- 'river', tʲʰʉ́hʉ́- 'nose', tʰʉ́- 'blood', kpàà- 'mosquito', íˣtʲʰá- 'starch'.

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-ʔʲɛ̀ɛ́ (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-ʔʲàːmɨ̀ (tsíhyaámɨ́) 'other leaf (paper, book,…)'
other-⟨leaf⟩

Classifiers combine with (bound) interrogative modifiers, as in 357:

(357) kʰɛ́-ìːʔʲò (kéiíhyo) 'which pencil (pen,…)?'
which-⟨stick⟩

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-ʔà:mɨ̀ (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-:pɛ̀ (paábe) 'all of him (SgM)'
all-⟨SgM⟩)

The resulting phrase is normally used in apposition to another noun phrase. For example, in 360 mɨ́ámʉ́nàà 'people' is modified by pʰáà:máì 'all like sticks in a row':

(360) Mɨ́amúnaa juuváyí péé páaamái.
mɨ́ámʉ́nàà hʉ̀:βá-jí pʰɛ́:-ʔ pʰá-à:má-ì
people 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 -ɨβóʔò:-ʉ̀ is derived from the verb ɨβoʔo- 'lie face down' by the addition of -ʉ 'DVC'. This is combined with pʰa- 'all' to form a noun phrase that is appositive to -mɨ̀, the classifier subject on the main verb:

(361) Teehí úníuri íjcyamɨ, mɨɨne páɨvóhoóu.
[tʰɛ̀:ʔí ʉ́níʉ̀ʉ]-ɾì íˣkʲʰà-mɨ̀ Ⓐ [mɨ̀:-nɛ̀
river beside -oblIn be-⟨canoe⟩ transport-⟨ø⟩

pʰá-ɨβóʔò:-ʉ̀ʉ]
all-overturn-DVC
'Alongside the river there is an overturned canoe.'

6.2.4.3 Classifiers forming connectives with a(:)- 'thematic'

A classifier may combine with the bound, anaphoric modifier a(:)- '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. à:-tʃɛ̀ (*aa*lle) 'she'
thm-⟨SgF⟩
b. à:-mɨ̀ (*aam*ɨ) 'that canoe (boat, car,…)'
thm-⟨canoe⟩
c. á-ʔà:mɨ̀ (*áhaam*ɨ) 'that leaf (paper, book,…)'
thm-⟨leaf⟩
d. à:-ʔɛ̀ (*aa*he) '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 -ˣtʰɛ ⟨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) kpa̰ːhákʰʊ̀-ʔáːmɨ̀ (*waajácuháámɨ*) 'book'
knowing-⟨leaf⟩
a̰kʰʊ́ːβɛ̀-kpà (*acúúvewa*) 'bench'
sitting-⟨slab⟩
kʰa̰ːtʰʊ́nʊ̀-íːʔʲò (*caatúnuííhyo*) '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) Ó ájtyumɨ́ teemɨ́ ímibájchóóbeke.

ó áˣtʲʰù̀umɨ́-ʔ [tʰɛ̀ː-mɨ̀ ˢímìpáˣʧʰó]-ːpɛ̀-kʰɛ̀
I see-⟨t⟩ that-⟨canoe⟩ fix -⟨SgM⟩-objAn
'I saw the one (SgM) who fixed the canoe (launch, car,…).'

(365) Ó ájtyumɨ́ teemɨ́ dibye ímíbájchomɨ́.

ó áˣtʲʰù̀umɨ́-ʔ tʰɛ̀ː-mɨ̀ [tì-pʲɛ̀ ˢímípáˣʧʰò]-mɨ̀
I see-⟨t⟩ that-⟨canoe⟩ that-⟨SgM⟩ fix -⟨canoe⟩
'I saw the canoe (launch, car,…) that he fixed.'

(366) Ópée o dsɨ́jcoja tsúúca nójcanúhi.

[ó-pʰéɛ̀[7] ò tsɨ̀ˢˣkʰò]-hà tsʰɯ́ːkʰà nóᴴˣkʰànɯ́-ʔì
I-rem I sew -⟨shelter⟩ already deteriorate-⟨t⟩
'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:-né-ʧì: tʰɯ̀ˣkʰɛ́nɯ̀-ːpɛ̀ [ì ˢíʔhʲɯ́βá]-nɛ̀
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.

[7] Note 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 -nɛ ⟨ø⟩ to form a free possessive pronoun, e.g., tʰà²-ɲɛ̀ (my-⟨ø⟩) 'mine' or tì²-ɲɛ̀ (your-⟨ø⟩) 'your', and then a classifier may be added:

(368) a. tʰà²-ɲé-kpà (tahñéwa) 'my slab (bench, table,…)'
mine-⟨ø⟩-⟨slab⟩
b. tʰà²-ɲé-kpá-²hɨ̀ (tahñéwáhjɨ) 'my slabs (benches, tables,…)'
mine-⟨ø⟩-⟨slab⟩-pl
c. tì²-ɲé-ʔá:mɨ̀ (dihñéháámɨ) 'your leaf (letter, book,…)'
your-⟨ø⟩-⟨leaf⟩

Even -nɛ ⟨ø⟩ may follow a free possessive pronoun:

(369) tʰà²-ɲé-nɛ́-²hɨ̀ (tahñénéhjɨ) 'my things'
mine-⟨ø⟩-⟨ø⟩-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, mʉ́tsʰì:tsʰì (mútsɨɨ́tsɨ) 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. mʉ́tsʰí:tsʰì-pà (mútsɨɨ́tsɨba) 'pear apple fruit'
b. mʉ́tsʰí:tsʰì-ʔɛ̀ (mútsɨɨ́tsɨhe) 'pear apple tree'
c. mʉ́tsʰí:tsʰì-páhʉ̀ (mútsɨɨ́tsɨbáju) '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.)

(371) a. mʉ́tsʰɨ́:tsʰɨ́-ʔɛ̀-ʔá:mɨ̀ (mútsɨ́ɨtsɨheháámɨ) ‘leaf of a pear
pear.apple-⟨tree⟩-⟨leaf⟩ apple tree’
b. ʉ́mɛ́-ʔɛ̀-kpà (úméhewa) ‘plank’
tree-⟨tree⟩-⟨slab⟩
c. ʉ́mɛ́-ʔɛ̀-kʰò (úméheco) ‘pole’
tree-⟨tree⟩-⟨pole⟩

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:[8]

NOUN PHRASE-{e / eme}-CLASSIFIER

Examples of -ɛ- ‘pertain to’ follow:

(372) tʃíːɲɛ́-ɛ̀-mɨ́ˣkʰò (llííñéemɨjco) ‘fence (corral,…)
below-per-enclosure that belongs below’

(373) tʰʉ́ɪˣkʰɛ́nʉ́ɪ-ɛ̀-kpà (túkénúewa) ‘slab (table,…)
front-per-⟨slab⟩ that belongs in front’

(374) ʔátʃʉ́ɪ-ɛ̀-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 ʔátʃʉ́ɪ-é-kpà (hállú-é-wa) are appositive.

(375) Oke daacu eewa hállúéwavu.
ò-kʰɛ̀ tàːkʰʉ̀ɪ [ɛ̀ː-kpà Ⓐ ʔátʃʉ́ɪ-é-kpà]-βʉ̀ɪ
I-objAn 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. tí-ːpʲɛ́-ɛ̀-ˣpʰì (dííbyéejpi) ‘a member (SgM) of
being-⟨SgM⟩-per-⟨SgM⟩ his (SgM) group’
b. tìː-tʲʰɛ́-ɛ̀-ˣpʰì (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) tí-:pʲé-ɛ̀mé-ˣpʰì (dííbyéeméjpi)
being-⟨SgM⟩-sim-⟨SgM⟩
‘one (SgM) similar to him (SgM)’ or ‘He is like the other.’

(378) tʰé:-né-ɛ̀mé-nɛ̀ (téénéeméne) ‘one similar to that (thing)’
that-⟨ø⟩-sim-⟨ø⟩

(379) í-kpá-ɛ̀mɛ́-kpà (íwáeméwa) ‘a slab (table,…)
this-⟨slab⟩-sim-⟨slab⟩ similar to this one’

(380) tí:-è-ʧé-ɛ̀mé-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) ú̱mé-ʔɛ̀-kpà (úméhewa)
tree-⟨tree⟩-⟨slab⟩

Subsequently it could be referred to with a phrase headed by -kpa -⟨slab⟩ like those in 382:

(382) tʰɛ̀:-kpà (teéwa) ‘that (aforementioned) slab-like thing’
í-kpàá (íwaá) ‘this slab-like thing’
ɛ́ʔ-kpàá (éhwaá) ‘that slab-like thing’
tsʰì-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 nɨ̀:tsʰú̱-kpà (cut-⟨slab⟩). Subsequently it could be referred to (in that universe of discourse) with tʰɛ̀:-kpà (teéwa) ‘that (aforementioned) slab-like thing’, í-kpàá (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 ɛʔ-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 átʰɛ́rɛ́ɛ̀-kpà (worthless-⟨slab⟩ átéréewa) 'worthless slab (plank, table, bench, machete,…)' has the following structure:

$$[_{NP}\ [_{Adj}\ \underset{\text{worthless}}{\text{átʰɛ́rɛ́ɛ̀-}}\ ]\quad [_{N}\ \underset{\langle\text{slab}\rangle}{\text{-kpà}}\ ]\ ]$$

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 -òːʔì ⟨jaguar⟩, as in 383a, is the noun oːʔi '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.

(383) a. tsʰá-o̲ː?ì (tsáoóhi) ‘one (jaguar)’
b. òː?í-ːpʲè (oohííbye) ‘jaguar (SgM)’
c. òː?í-mʲè (oohímye) ‘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 (-)ʔóˣtsʰì ‘hand’, (-)ˣtʰùːʔà ‘foot’, and the following:[10]

(384) í-pʲʰèˣkʰò ‘this night’ cf. pʰèˣkʰò ‘night’
tʰé-ˣkʰòːhì ‘that day’ cf. kʰòːhì ‘day’
tʰé-ˣkʰèːmɛ̀ ‘that old man’ cf. kʰèːmɛ̀ ‘old man’
tsʰá-nùːʔpà ‘one month’ cf. nùːʔpà ‘moon, sun’

The classifier -mɨ ⟨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) kʰùːhúkpà-mɨ (cuujúwɑmɨ) ‘launch’ (i.e., a boat
fire.burning-transport with an onboard motor)
íˣʧʰí-è-mɨ (íjchíemɨ) ‘car, truck’
upland-per-transport
kʰáːmé-è-mɨ (cáámèemɨ)) ‘airplane’
high-per-transport

When any of these is present in the universe of discourse, it could be referred to with tʰèː-mɨ ‘that transportation device’, ì-mɨ ‘this transportation device’, and so forth. The cognate noun mɨ̀ː-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-

[10]Some of these bear an initial [ˣ] when used as a classifier. This property may be shared with the root; for example, kʰèːmɛ̀ ‘old man’ places a [ˣ] on the end of a preceding modifier: tʰáˣ kʰèːmɛ̀ ‘my old man’.

tures 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: ok^{h}ahi ‘tapir, cow’; mɛːni ‘peccary, domestic pig’; o̲ːʔi-ːp^{j}ɛ ‘jaguar, dog’, ɨːhɯ ‘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., -iːʔ^{j}o ⟨stick⟩ denotes the class of things that are relatively long and slender, roughly cylindrical, and have an orientation toward one end; -hɨ ⟨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., -ts^{h}ɨ ⟨child⟩, -o̲ːʔi ⟨jaguar⟩, -ʔɛ ⟨tree⟩, and -pa ⟨box⟩.
3. Some classifiers are like pronouns in denoting small, deictically determined classes, often singletons; e.g., -Ⓛtʃɛ̀ ⟨SgF⟩, -mɯts^{h}i ⟨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.
   ìmítʃé-mé ì má^{x}tʃ^{h}ò-nɛ̀ ‘They want to eat.’
   want-⟨AnPl⟩ self eat-⟨ø⟩

Whether broad or narrow, whether deictically determined or not, classifiers are never used to *attribute* their properties to some other referring expresssion (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., tʃʰémɛ̀-mé-ʔhì-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) tʰáːpò-ːpɛ̀ (T*áá*boóbe.) 'He treats (medically).'
áíːβʲɛ̀-ʔɛ̀ (Áíívyehe.) 'The tree is burning.'
ímíːβʲɛ̀-hà (Ímíívyej*ɑ*.) '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) [$_{\text{predicate}}$…verb] [$_{\text{subject}}$ -classifier$_i$] Ⓐ (NP$_i$)

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-ɛ̀mɛ́-kpà 'a slab (plank, table, machete,…) like this one', in which -ɛmɛ- 'similar to' is a postposition. Compare the structures in figure 6.4:

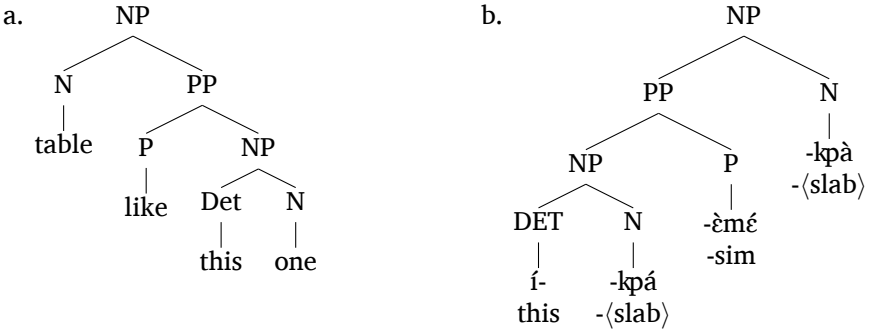

Figure 6.4 'A table like this one.'

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[11]—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, kpa:hak^{h}ɯ 'know' is a verb having features like [+verbal, +cognitive], which it shares with its nonfinite form kp$\underset{\text{L}}{\text{a}}$:hak^{h}ɯ 'knowing'. Suppose this is combined with with -ʔa:mɨ ⟨leaf⟩ (paper, book,…),

[11] It 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 kpà:hák^{h}ù-ʔá:mɨ̀ 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 mit^{jh}a, which is ambiguous between 'many' [+plural] and 'big' [−plural], as in 389:

(389) a. mít^{jh}à-ːpɛ̀ (mítyaábe) 'big man (or male animal)'
many/big-⟨SgM⟩ *'many SgM'

b. mít^{jh}à-mɛ̀ (mítyame) 'many men (or animals)'
many/big-⟨AnPl⟩ or 'big ones (AnPl)'

The ambiguity of mit^{jh}a 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 mit^{jh}a, which may therefore not mean 'many'. Thus, the only interpretation possible for mit^{jh}a 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 interpetation of mit^{jh}a.

3. Consider now the issue of headedness in phrases that have multiple classifiers, as, for example, in mɯ́ts^{h}ɨ́ːts^{h}ɨ́-ʔɛ̀-ʔá:mɨ̀ (pear.apple-⟨tree⟩-⟨leaf⟩) 'leaf of a pear apple tree'. Here -ʔɛ ⟨tree⟩ heads [[mɯ́ts^{h}ɨ́ːts^{h}ɨ́] -ʔɛ̀], which denotes a pear apple tree. -ʔa:mɨ heads [[[mɯ́ts^{h}ɨ́ːts^{h}ɨ́] -ʔɛ̀] -ʔáː-mɨ̀], 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 ⟨ø⟩, 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 -nɛ̀ ⟨ø⟩, 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 mɨ̀-nɛ̀ transport-⟨ø⟩ 'canoe'. By itself, the root mɨ̀- does not refer to a canoe; rather, it means quite generally 'transportation'. However, it does refer to a canoe when combined with -nɛ̀ ⟨ø⟩, which (1) satisfies the structural requirement for a head, and (2) denotes a class of objects, thus enabling the phrase to refer.[12]

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 mɨ̀- is undoubtedly cognate with the classifier -mɨ̀, 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-tsʰɨ 'that baby', the head is the classifier -tsʰɨ ⟨baby⟩ and this is modified by the demonstrative "adjective" tʰɛ(:)- '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.

[1] In 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

MECHANISM	STRUCTURE	FREQUENCY
bound noun-classifier	[$_{N}$ N_{bound}-⟨classifier⟩]	very many
apposition	[$_{NP}$NP Ⓐ NP]	very many
genitive construction	[$_{NP}$NP Ⓖ N]	many
noun-e-classifier	[$_{NP}$N-ɛ-⟨classifier⟩]	many
free noun-classifier	[$_{N}$ N_{free}-⟨classifier⟩]	some
noun-eme-classifier	[$_{N}$ N-ɛmɛ-⟨classifier⟩]	some
compounding	[$_{N}$ NN]	few[a]
conjunction	?[$_{NP}$NP Conjunction NP]	very limited
phrasal constituency	*[$_{NP}$NP N]	none

[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. NP_i Ⓐ NP_i Ⓐ NP_i…
b. verb-⟨classifier⟩$_i$ Ⓐ NP_i Ⓐ NP_i…

The classifiers play an important role in linking the various parts of a phrase. Consider 391 for example:

(391) Diibye wajpi cáracádívú ó ájcuube péjucóóhi.

tì-ːpʲɛ̀ Ⓐ kpàˣpʰì Ⓐ [kʰárak̲ʰá-tí-βɯ́
that-⟨SgM⟩ man chicken-anim-thm

ó ø$_i$ a̤ˢˣkʰɯ̀]-ːpɛ̀$_i$ pʰé-hɯ̀kʰóː-ʔì
I give -⟨SgM⟩ go-now-⟨t⟩
'The man to whom I gave the chicken left.'

The first noun phrase, tì-ːpʲɛ̀ 'that (SgM)' is a determiner-based pronoun; the second, kpàˣpʰì 'man' is a noun; and the third, kʰáràkʰátíβɯ́ ó áˣkʰɯ̀ːpɛ̀ 'the one (SgM) to whom I gave the chicken' is a relative clause. kpàˣpʰì

[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 tsʰá?òˣtsʰɨ́ 'five' combines with the classifier -mɛ ⟨AnPl⟩; this combination is followed by the appositive noun (the animate plural suffixes providing the referential linkage):

(392) Tsáhojtsɨ́meva wajpíímú tsááhi.
tsʰá-?òˣtsʰɨ́-mɛ̀-βà kpàˣpʰíː-mɯ́ tsʰáː-ʔì 'Five men
one-⟨hand⟩-⟨AnPl⟩-plQ man-plAn come-⟨t⟩ come.'

A subject noun phrase may be appositive to a postverbal subject classifier:

(393) nɛ̀-ːpɛ́-βa-a Ⓐ [ĩ Ⓖ ʧìː] (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 Ⓖ kʰáːnì tsʰáː-ʔì '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) tìː-pʲɛ̀ Ⓐ pɨ̀ːɾɯ́mɯ̀-hì (diibye bɨɨrúmujɨ) 'that (SgM) agouti'
that-⟨SgM⟩ agouti-sg

(396) tʰɛ́ː-nɛ̀-ɾì Ⓐ tsʰàʔɾópà-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
tʰɛ́-nìːʔʲò Ⓐ mɛ́kpá-níːʔʲò-kʰɛ̀ 'that wife-objAn'
that-⟨mother⟩ wife-⟨mother⟩-objAn

Example 398 has both a demonstrative and quantifier:

(398) ...íñe páneere dɨ́tsɨ́ju bájtsoháñé...
í-ɲɛ̀ Ⓐ pʰá-nɛ̀-ːɾɛ̀ Ⓐ [tɨ́ː Ⓖ -tsʰɨ́ːhɯ̃́ páˣtsʰo ʔáɲɛ́]
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 áñúúbeke…

nɛ́ːpʰɨ́kʲʰó-kʰɛ̀-βa̋-à Ⓐ [áβʲɛ́hɯ̀ɯ̀-ːpɛ̀ a̋ɲɯ́ɯ́-ːpɛ̀]-kʰɛ̀
squirrel-objAn-rpt-rem kingdom-⟨SgM⟩ shoot-⟨SgM⟩ -objAn
'…the squirrel the chief shot…'

(400) …wañéhjɨvu, iyámé wañéhjɨ́ íjcyanévu…

kpàɲɛ́ʔhɨ̀-βɯ̀ɯ̀, Ⓐ [ìjá-mɛ́ kpa̋ɲɛ́ʔhí ɨ̂ˣkʲʰà-nɛ́]-βɯ̀ɯ̀
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 máˣʧʰó-ːpɛ̀-kʰɛ́-híːβà is in apposition to tíːpʲɛ̀-kʰɛ̀. (See also 807, page 316.)

(401) ¿ɬ́veekí dííbyeke ú tsajtyé májchóóbekéjɨ́vaʔ
íβɛ̀ː-kʰí tíːpʲɛ̀-kʰɛ̀ ú tsʰàˣtʲʰɛ́-ʔ
why-pur that-⟨SgM⟩-objAn you take-⟨t⟩

Ⓐ maˣʧʰó-ːpɛ̀-kʰɛ́-híːβà
eat-⟨SgM⟩-objAn-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,[3] among them mítʲʰà-nɛ̀ 'many', function like prenominal adjectives, as in 402:

(402) mítʲʰà-nɛ̀ kpàːmʲɯ̀ɯ̀ (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', ʧʰóʔʲɯ̀ɯ̀ 'little, few', ɯ̀ʔhɛ̀ 'little, few', pʰíβá- 'numerous', pʰà- 'all'.

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.[4]

The order of suffixes following a noun stem is given in figure 7.1.

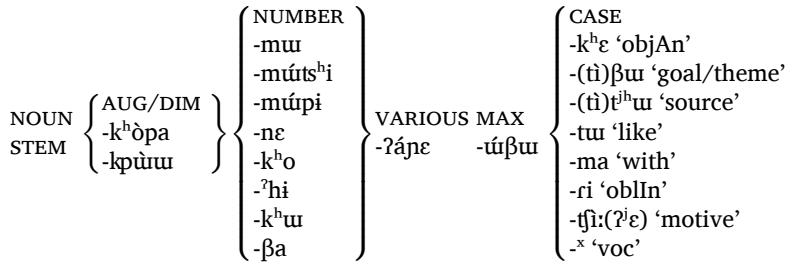

Figure 7.1 The order of nominal suffixes

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) -mɯ + tsʰi (-mutsi) ⟨DuM⟩
-mɯ + pʰɨ (-mupɨ) ⟨DuF⟩
-mɯ (-mu) 'plAn'

The basic form of an animate noun may be singular or collective.

[4]The basic system of contrasts is as follows (in which [−masculine] is *feminine* and [−dual] is *plural*):

item:	±animate,±plural
−plural:	±dual
+animate,−plural:	±masculine

Singular in the basic form. SINGULAR animate nouns form the dual and plural with the suffixes of 403, as in 404:

(404) a. mɛ̀ːnì (meéni) ‘pig (AnSg)’
b. mɛ́ːnì-mɯ́tsʰì (méénimútsi) ‘pigs (DuM)’
c. mɛ́ːnì-mɯ́pʰɨ̀ (méénimúpɨ) ‘pigs (DuF)’
d. mɛ́ːnì-mɯ̀ (méénimu) ‘pigs (AnPl)’

Some words that we might regard as inanimate are animate in Bora; for example:

(405) a. nɯ̀ʔpà (nuhba) ‘sun, moon, watch’
b. nɯ́ʔpà-mɯ́tsʰì (núhbamútsi) ‘the sun and the moon, two watches’
c. nɯ́ʔpà-mɯ̀ (núhbamu) ‘watches (AnPl)’

Other words of this sort (which undoubtedly reflect something of Bora cosmology) are: míːkʰɯ̀ɾɯ̀ ‘stars’, ʧʰìˣʧʰì ‘thunder’, and tʰɯ̀ːʔì ‘rainbow’.

Nouns referring to an individual may be followed by -mɯtsʰi to refer to that individual and his or her associate. For example, a set of parents can be referred to either as kʰáːní-mɯ̀tsʰì (father-⟨DuM⟩) or tsʰíːhɯ̀-mɯ́tsʰì (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) -mɯtsʰi (-mútsi) ⟨DuM⟩
-mɯpʰɨ (-múpɨ) ⟨DuF⟩

In 407 the noun íːʔʲɯ̀hɛ̀ ‘*curuhuinse* (a type of leaf-cutter ant)’ is collective. This is made singular in 407b,c by the classifier -ɯ ⟨singular⟩. In 407c it is further made dual and masculine:

(407) a. íːʔʲɯ̀hɛ̀ (ííhyuje) ‘leaf-cutter ants’ (collective)
b. íːʔʲɯ̀hɛ́-ɯ̀ (ííhyujéu) ‘leaf-cutter ant (sg)’
c. íːʔʲɯ̀hɛ́-ɯ̀-mɯ́tsʰì (ííhyujéumútsi) ‘two leaf-cutter ants (DuM)’

Example 408, where kʰàː refers to a type of small, stinging ant, is similar except that the classifier is -ʔpa:

(408) a. kʰàː (caá) ‘ants (collective)’
b. kʰà-ʔpà (cahba) ‘ant (sg)’
c. kʰá-ʔpà-mɯ́tsʰì (cáhbamútsi) ‘two ants (DuM)’

The noun mí:kʰùɾùɪ̀ ‘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 -muɪtsʰi ‘DuM’ (as in 409c). (Although the collective form is inanimate, individual *named* stars may be animate and the dual form is always animate.)

(409) a. mí:kʰùɾùɪ̀ (mɨ́ɨ́curu) ‘stars (collective)’
b. mí:kʰúɾùɪ̀-kpà (mɨ́ɨ́cúruwa) ‘star (sg)’
c. mí:kʰúɾùɪ̀-kpá-muɪtsʰì (mɨ́ɨ́cúruwámútsi) ‘stars (DuM)’

The animate collective nouns may be followed by one of the following classifiers: -ˣpʰi ‘singular masculine’, -ʧɛ ‘singular feminine’, -ˣtʰɛtsʰi ‘dual masculine’, -ˣtʰɛpʰɨ ‘dual feminine’. Examples follow:

(410) a. mɨ́ ᴸàmúnàà (mɨ́amúnaa) ‘people (collective)’
b. mɨ́ ᴸàmúnáà-ˣpʰì (mɨ́amúnáajpi) ‘person (SgM)’
c. mɨ́ ᴸàmúnáà-ʧɛ̀ (mɨ́amúnáalle) ‘person (SgF)’
d. mɨ́ ᴸàmúnáà-ˣtʰɛ́tsʰì (mɨ́amúnáajtétsi) ‘two persons (DuM)’
e. mɨ́ ᴸàmúnáà-ˣtʰɛ́pʰɨ̀ (mɨ́amúnáajtépɨ) ‘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 -(:)kʰɯ ‘duIn’ and the plural with -(:)nɛ ‘plIn’. For example:

(411) a. úmɨ́ ᴸʔɛ̀ (úmɨhe) ‘field (sg)’
b. úmɨ́ ᴸʔɛ́-kʰùɯ (úmɨhécu) ‘two fields’
c. úmɨ́ ᴸʔɛ́-nɛ̀ (úmɨhéne) ‘fields (pl)’

In 412, the vowel length of -(:)kʰɯ and -(:)nɛ 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]

(412) a. úmɛ̀-ʔɛ̀ (úmehe) ‘tree (sg)’
b. úmɛ̀-ʔɛ́-ːkʰùɯ (úmehéécu) ‘two trees’
c. úmɛ̀-ʔɛ́-ːnɛ̀ (úmehéène) ‘trees’ (pl)

[5]It probably has nothing to do with the lexically marked low tone of úmɨ́ ᴸʔɛ̀.

-(:)kʰɯ ‘duIn’ 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:

	‘river’		‘little river’	
singular	tʰɛ̀:ʔì	(teéhi)	tʰɛ́:ʔí-kpʊ̀	(tééhíwu)
plural	tʰɛ́ʔì-ɲɛ̀	(téhiñe)	tʰɛ́ʔí-kpʊ̀ɯ-:nɛ̀	(téhíwuúne)
	‘trail’		‘little trail’	
singular	hʊ̀ɯ:βà	(juúva)	hʊ̀ɯ:βá-kpʊ̀	(juuváwu)
plural	hʊ́ɯβà-ɲɛ̀	(júvañe)	hʊ́ɯβá-kpʊ̀ɯ-:nɛ̀	(júváwuúne)

Note that, in the nondiminutive plural forms /tʰɛ́ʔìɲɛ̀/ and /hʊ́ɯβàɲɛ̀/, the length of -(:)ɲɛ̀ ‘plural’ does not appear. In the case of /hʊ́ɯβàɲɛ̀/ perhaps this is because the preceding vowel was historically /*aʲ/, with the palatal semivowel filling the syllable coda. In the case of /tʰɛ́ʔìɲɛ̀/, 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 ‘duIn’ 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. mʊ́tsʰɨ̀:tsʰɨ̀ (mútsɨ́tsɨ) ‘pear apple’
b. mʊ́tsʰɨ́:tsʰɨ̀-pà (mútsɨ́tsɨba) ‘pear apple (sg)’
c. mʊ́tsʰɨ́tsʰɨ̀-pá-:kʰʊ̀ɯ (mútsɨtsɨbáácu) ‘two pear apples (du)’
d. mʊ́tsʰɨ́tsʰɨ̀-pá-:nɛ̀ (mútsɨtsɨbááne) ‘pear apples (pl)’

(414) a. mʊ́tsʰɨ́:tsʰɨ̀-ʔɛ̀ (mútsɨ́tsɨhe) ‘pear apple tree’ (sg)
b. mʊ́tsʰɨ́tsʰɨ̀-ʔɛ́-:kʰʊ̀ɯ (mútsɨtsɨhéécu) ‘two pear apple trees (du)’
c. mʊ́tsʰɨ́tsʰɨ̀-ʔɛ́-:nɛ̀ (mútsɨtsɨhééne) ‘pear apple trees (pl)’

tsʰɨ̀:mɛ̀ ‘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 ‘inanimate dual’, which ordinarily only follows inanimate nouns; see 415c. However, the duals are also formed with -mɯtsʰi ⟨DuM⟩ and -mɯpʰɨ ⟨DuF⟩, which are used only with animate nouns; see 415d and 415e.

(415) a. tsʰɨ̀ːmɛ̀ (tsɨ́me) ‘young (collective)’
b. tsʰɨ́ːmɛ̀nɛ̀ (tsɨ́mene) ‘young (sg)’
c. tsʰɨ́mɛ̀né-ːkʰù (tsɨmenéécu) ‘two young (inan.)’
d. tsʰɨ́ːmɛ́nɛ̀-múːtsʰì (tsɨ́ménemútsi) ‘two young (masc.)’
e. tsʰɨ́ːmɛ́nɛ̀-múːpʰɨ̀ (tsɨ́ménemúpɨ) ‘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 -Ⓛkʰɛ ‘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, $ma^{N}{}^{x}tʃ^{h}ò$ ‘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 ʔaɲɛ ‘various (set)’.[6] 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. $ma^{N}{}^{x}tʃ^{h}$ó Ⓖ ʔáɲè (majchóháñe) ‘various foods,
food var various types of food’

b. $mɨ́^{L}$ámúnà^{G}à ʔáɲè (mɨ́amúnaaháñe) ‘(a variety of) peoples’

c. ^{L}oːʔím^{jG}ɛ̀ ʔáɲè (oohímyeháñe) ‘(a variety of) dogs’

d. $ím^{N}$ípá$^{x}tʃ^{h}$o^{G} ʔáɲè (ímibájchohañe) ‘various instances
fixing var of fixing’

e. k^{h}áβà^{N}á$^{x}k^{h}$o^{G} ʔáɲè-mà (cávaájcoháñema) ‘with various
poke.hole var-with pokers’

(417) Mítyane kimóóveháñé téhulle.
$mít^{jh}$à-nè $k^{h}{}^{N}$ímó-ːβ^{G}ɛ̀ ʔáɲé t^{h}é-ʔùtʃè
large-plIn sadness-sIn various that-⟨location⟩
‘There is much sadness there.’

[6] This resembles the English use of the genitive as in *a lot of food*, *a variety of foods*, *a collection of dolls*, and so forth.

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 nɛ́ʔni '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 nɛ̀ʔní-ʔì (ó nehníhi) 'I am ugly.' (finite verb)
I be.ugly-⟨t⟩

b. nɛ́ʔníʔ òó (Néhní oó.) 'I am ugly.' (adjective)
ugly I

c. tʰᴳá nɛ́ʔnì (tanéhni) 'my ugliness' (nonfinite verb)
my ugliness

d. Dííbye néhní bóhówaavéhi.
[tí:pʲᴳɛ́ nɛ́ʔní] póʔókpà-:βɛ́-ʔì
that-⟨SgM⟩ ugliness visible-sIn-⟨t⟩
'He manifests his meanness. (lit. His ugliness shows.)'

For example, consider imitʲʰɯ 'be bad'. In 419 it is a verb; in 420, a predicate adjective; in 421, an adverb:

(419) a. ímí-tʲʰɯ̀-:pɛ̀ (Ímítyuúbe.) 'He is bad.'
be.good-neg-⟨SgM⟩
b. ó ìmí-tʲʰɯ́-ʔì (Ó imítyúhi.) 'I am bad.'
I be.good-neg-⟨t⟩

(420) Ímítyú dííbye wákimyéi.
ímí-tʲʰɯ́ʔ tí-:pʲᴳɛ́ kpákʰᴺímʲɛ́ì 'His work is bad.'
good-neg that-⟨SgM⟩ work (predicate adjective)

(421) Ímítyú wákímyeíibye.
ímí-tʲʰɯ́ʔ kpákʰímʲɛ̀í-:pʲɛ̀ '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

pʰa̲ɲɛ heads a genitive construction; the modifier (iˀ-hʲa 'his house') is the object relative to which position is indicated. Other examples follow:

pʰa̲ɲɛ (pañe) 'interior, inside':

(422) Íhjyá pañe íjcyaábe.
[[íˀ Ⓖ hʲá] Ⓖ pʰa̲ɲè] íˣkʲʰà-ːpè 'He is in his house.'
self house inside be-⟨SgM⟩

paː (baa) 'below':

(423) pàː-tʰù̵ tsʰá-ːpɛ̀é (Baatu tsáábeé.) 'He comes below-sou come-⟨SgM⟩ from below.'

ʧ̲ʲiːɲɛ (lliiñe) 'lower part':

(424) Táñahbe úcaavé já lliiñévu.
tʰá Ⓖ ɲa̲-ˀpè úɪkʰà-ːβé-ˀ há Ⓖ ʧ̲ʲiːɲé-βù̵
my sib-⟨SgM⟩ enter-sIn-⟨t⟩ house under-goal
'My brother went in under the house.'

kʰaːmɛ (caáme) 'above':

(425) kʰàːmè íˣkʲʰà-ːpè (Caame íjcyaábe.) 'He is above.'
above be-⟨SgM⟩

(426) kʰáːmé-βù̵ nɛ́ríːβʲè-ːpè (Cáámevu nériívyeébe.)
above-goal ascend-⟨SgM⟩
'He ascended to (the place) above.'

ʉ̄̀niɯ (úniu) 'along side of, beside'; e.g., tʰá Ⓖ ʉ̄́niù̵-rì (my beside-oblIn) 'at my side'

The locative noun aːʔɨ '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) àːʔɨ tì-ːpʲè (Aaɨ diíbye.) 'He is at home.'
at.home that-⟨SgM⟩

Locative nouns are rarely pluralized. If so, they usually bear -ʔaɲɛ 'various' (used typically to pluralize abstract nouns). However, ʉ̄́niɯ 'along side of' is pluralized with -ːkʰù̵ 'duIn' or -ːnè 'plIn':

(428) a. ʉ̄́nìʉ́-ːkʰù̵ (úniúúcu) 'sides (du)'
b. ʉ̄́nìʉ́-ːnè (úniúúne) '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: -mɯ, -nɛ, -ʔhɨ, -ʔáɲɛ, 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) tsɨ́ːtsɨ̀ (money dsɨ́ɬ́dsɨ́) 'money'
tsɨ́ːtsɨ̀-hɨ̀ (money-⟨disk⟩ dsɨ́ɬ́dsɨ́jɨ́) 'coin'
tsɨ́ːtsɨ̀-ʔáːmɨ̀ (money-⟨leaf⟩ dsɨ́ɬ́dsɨ́háámɨ́) 'bill'

(430) ʧámàːɾà (lemon llámaára) 'lemons'
ʧámáːɾà-pà (lemon-⟨sphere⟩ llámáárabа) 'one lemon'
ʧámáːɾà-ʔɛ̀ (lemon-⟨tree⟩ llámáárahe) 'lemon tree'
ʧámáːɾà-páhʉ̀ (lemon-⟨grove⟩ llámáárabáju) '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; -Ⓛ◯mɛ̀ ⟨AnPl⟩ is used for the plural, as in 431–433:

(431) ò:ʔí-ːpʲɛ̀ (jaguar-⟨SgM⟩ oohííbye) 'jaguar (SgM)'
ò:ʔí-mʲɛ̀ (jaguar-⟨AnPl⟩ oohímye) 'jaguars (AnPl)'

(432) àmó-ːpɛ̀ (fish-⟨SgM⟩ amóóbe) 'fish (sg)'
àmó-mɛ̀ (fish-⟨AnPl⟩ amóme) 'fish (pl)'

(433) ìjá-ːpɛ̀ (animal-⟨SgM⟩ iyáábe) 'animal'
ìjá-mɛ̀ (animal-⟨AnPl⟩ iyáme) 'animals'

The bound root mɨnɛ- 'peccary' is like these except it forms the plural with -ˣtʰɛ̀ ⟨AnPl⟩. To our knowledge, this is the only root that does this.

(434) mɨ́nɛ̀-ːpɛ̀ (peccary-⟨SgM⟩ mɨneébe) 'peccary'
mɨ́nɛ̀-ˣtʰɛ̀ (peccary-⟨AnPl⟩ mɨnejte) 'peccaries'

The duals are formed by adding -mɯtsʰi ⟨DuM⟩ or -mɯpʰɨ ⟨DuF⟩ following the singular classifier. (See table 7.2 for additional examples.)

(435) o̲:ʔí-:pʲè-mɯ́-pʰɨ̀ (oohííbyemúpɨ) ‘jaguars (DuF)’
dog-⟨SgM⟩-DuM
o̲:ʔí-:pʲè-mɯ́tsʰì (oohííbyemútsi) ‘jaguars (DuM)’
dog-⟨SgM⟩-DuM
mɨ́né-:pè-mɯ́tsʰì (mɨ́néébemútsi) ‘peccaries (DuM)’
peccary-⟨SgM⟩-DuM

7.3.3 Pluralization with -Ⓛmɯ

Generally, animate nouns are pluralized by suffixing -Ⓛmɯ (-mu) ‘plAn’, as in 436a and b. -Ⓛmɯ 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	ɨ:hɯ̀	(ɨɬju)	ɬ:hɯ̀-mɯ̀	(ɬɬjumu)
b. buzzard	àɲɯ̀	(*a*ñu)	áɲɯ̀-mɯ̀	(*á*ñumu)
c. rat	kʰɯ̀:βé-pà	(cuuvéb*a*)	kʰɯ̀:βé-mɯ̀	(cuuvému)
d. dove	ɬhɯ̀:-ɯ̀	(ɬjuúu)	ɬhɯ̀:-mɯ̀	(ɬjuúmu)
e. plate	pòʔtʰá-hɨ̀	(bohtáj*ɨ*)	pòʔtʰá-mɯ̀	(bohtámu)

(437) ókʰáhì-mɯ́tsʰì (ócájimútsi) ‘tapirs (DuM)’
ókʰáhì-mɯ́pʰɨ̀ (ócájimúpɨ) ‘tapirs (DuF)’
ókʰáhì-mɯ̀ (ócájimu) ‘tapirs (more than two)’.

The noun òβáʔtsʰà ‘male adolescent’ is singular; the plural is formed with -Ⓛmɯ̀. By contrast, pátsɨ̀ˣkʰà ‘female adolescent’ is plural (collective); the singular is formed with -hà:

	MALE ADOLESCENT	FEMALE ADOLESCENT
SINGULAR	òβáʔtsʰà (ov*á*htsa)	pátsɬˣkʰà-hà (bádsɬjca*j*a)
PLURAL	òβáʔtsʰà-mɯ̀ (ov*á*htsamu)	pátsɨ̀ˣkʰà (bádsɨjc*a*)

Some animate nouns derive the dual by adding -mɯtsʰi or -mɯpʰɨ after the singular classifier, but form the plural by substituting -mɯ for the classifier. A few inanimate nouns form the plural by replacing the classifier with -mɯ, but form the dual with the -:kʰɯ ‘InPl’. See table 7.2.

Table 7.2 Nouns that form the plural by replacing the classifier

ANIMATE	SINGULAR	DUAL MASCULINE	PLURAL
'toad'	à^{ʔ}k^{h}ó-kpà	à^{ʔ}k^{h}ó-kpà-mútsʰì	à^{ʔ}k^{h}ó-mʉ̀
	(ahcówa)	(ahcówamútsi)	(ahcómu)
'bird'	k^{h}ò:mɨ́-k^{h}ò	k^{h}ò:mɨ́-k^{h}ò-mútsʰì	k^{h}ò:mɨ́-mʉ̀
	(coomɨco)	(coomɨcomútsi)	(coomɨmu)
'turtle'	k^{h}ʉ́:mʉ̀-hɨ̀	k^{h}ʉ́:mʉ́-hɨ̀-mútsʰì	k^{h}ʉ́:mʉ̀-mʉ̀
	(cúúmujɨ)	(cúúmújɨmútsi)	(cúúmumu)
'cricket'	ʧ^{h}ák^{h}àʧ^{h}í-ʉ̀	ʧ^{h}ák^{h}àʧ^{h}í-ʉ̀-mútsʰì	ʧ^{h}ák^{h}àʧ^{h}í-mʉ̀
	(chácachíu)	(chácachíumútsi)	(chácachímu)
'parrot'	ʧ^{h}à^{ʔ}ʧ^{h}á-ì	ʧ^{h}à^{ʔ}ʧ^{h}á-ì-mútsʰì	ʧ^{h}à^{ʔ}ʧ^{h}á-mʉ̀
	(chahchái)	(chahcháimútsi)	(chahchámu)

INANIMATE	SINGULAR	DUAL	PLURAL
'plate'	pò^{ʔ}t^{h}á-hɨ̀	pò^{ʔ}t^{h}á-hɨ́-ːk^{h}ʉ̀	pò^{ʔ}t^{h}á-mʉ̀
	(bohtájɨ)	(bohtájɨ́cu)	(bohtámu)
'scissors'	mà^{x}ʧ^{h}ó-kpà	mà^{x}ʧ^{h}ó-kpá-ːk^{h}ʉ̀	mà^{x}ʧ^{h}ó-mʉ̀
	(majchówa)	(majchówáácu)	(majchómu)
'room'	mɨ́^{x}k^{h}ò-ʔò	mɨ́^{x}k^{h}ò-ʔó-ːk^{h}ʉ̀	mɨ́^{x}k^{h}ò-mʉ̀
	(mɨjcoho)	(mɨjcohóócu)	(mɨjcomu)

7.3.4 The plural suffix -nɛ

The pluralizer -ːnɛ (-ːne) ∼ -ːɲɛ (-ːñe) 'plIn' is added to singular inanimate nouns to form the corresponding plural, as in the following:

⋆ úmìʔé-nɛ̀[7] (úmɨhéne) 'fields'; cf. úmìʔɛ̀ 'field'
⋆ k^{h}ámɛ́ɛ̀-mɨ́-ːnɛ̀ (cámɛ́emɨ́ɨne) 'airplanes'; cf. k^{h}á:mɛ́ɛ̀mɨ̀ 'airplane'
⋆ úmɛ̀-ʔɛ́-ːnɛ̀ (úmehéene) 'trees'; cf. úmɛ̀-ʔɛ̀ 'tree'

7.3.5 The plural suffix -$^{(ʔ)}$hɨ̀

The pluralizer -$^{(ʔ)}$hɨ̀ (-hjɨ) follows pronoun + classifier expressions, as in the following:

⋆ t^{h}é-ʔɛ̀-^{ʔ}hɨ̀ (téhehjɨ) 'those trees (plants,…)'; cf. t^{h}ɛ̀:ʔɛ̀ (teéhe) 'that tree (plant,…)'
⋆ í-kpà-^{ʔ}hɨ̀ (íwahjɨ) 'these slabs (planks, benches, machetes,…)'; cf. í-kpàá (íwaá) 'this slab (plank,…)'

[7] We do not know why -ːnɛ fails to produce a long vowel in this case.

- ⋆ kʰɛ́-hà-ʔhí (kéjahjɨ́) ‘which houses (shirts, pants,…)’; cf. kʰɛ̀ː-há (keejá) ‘which house (shirt,…)’
- ⋆ tʰàʔɲé-ʔàːmí-hì (tahñéhaamɨ́jɨ́) ‘my papers (books, notebooks,…)’; cf. tʰàʔɲé-ʔáːmì (tahñéháámɨ́) ‘my paper (book,…)’
- ⋆ tsʰɨ́-mì-ʔhì (tsɨ́mɨ́hjɨ́) ‘other canoes (cars, airplanes,…)’; cf. tsʰɨ̀ː-mɨ̀ (tsɨ́ɨ́mɨ́) ‘other canoe, (car,…)’
- ⋆ á-ʔàːmí-hì (áhaamɨ́jɨ́) ‘those aforementioned papers (books, notebooks,…)’; cf. á-ʔàːmɨ̀ (áhaamɨ́) ‘that aforementioned paper (book,…)’
- ⋆ á-ʔɛ̀-ʔhì (áhehjɨ́) ‘those aforementioned trees (plants,…)’; cf. àː-ʔɛ̀ (aahe) ‘that aforementioned tree, (plant,…)’

Likewise, it is used with bound inanimate modifiers, as in the following:

- ⋆ átʰɛ́rɛ́ɛ̀-mí-hì (átéréemɨ́jɨ́) ‘worthless canoes (cars, airplanes,…)’; cf. átʰɛ́rɛ́ɛ̀-mɨ̀ (átéréemɨ́) ‘worthless canoe, (car,…)’
- ⋆ àíːβʲɛ̀-há-ʔhì (aíívyejáhjɨ́) ‘burned houses (shirts,…)’ cf. àíːβʲɛ̀-hà (aíívyeja) ‘burned house (shirt…)’

(438) Íwahjɨ́ muurá nɨtsúwáánɛ́ oke u ájcuwáhjɨ́.

í-kpà-ʔhɨ̀ mʉ̀ːɾá nɨ̀tsʰʉ́-kpá-ːnɛ́
this-⟨slab⟩-pl confirm knife-⟨slab⟩-pl

Ⓐ [ò-kʰɛ̀ ʉ̀ɪ a̋ˢˣkʰʉ̀ɪ]-kpá-ʔhì
I-objAn you give -⟨slab⟩-pl
‘Look, these are the machetes that you gave me.’

Finally, -(ʔ)hɨ̀ (-hjɨ́) may pluralize an animate noun to indicate a large quantity or exhaustiveness, as in the following:

- ⋆ tì-ːtʲʰɛ́-ʔhì (diityéhjɨ́) ‘all of them’; cf. tì-ːtʲʰɛ̀ (diítye) ‘they’
- ⋆ í-ˣtʲʰɛ̀-ʔhì (íjtyehjɨ́) ‘all of these’ cf. í-ˣtʲʰɛ̀ɛ́ (íjtyeé) ‘these’
- ⋆ pʰá-mɛ̀-ʔhɨ́-ɾɛ̀ (pámehjɨ́re) ‘all (AnPl, lacking none)’; cf. pʰá-mɛ̀-ːɾɛ̀ (pámeére) ‘all (AnPl)’

(439) ɨ́mɨ́ájtéhjɨ́ubá diítye.

ɨ́mɨ́á-ˣtʰɛ́-ʔhɨ́-ɯ̋pá tì-ːtʲʰɛ̀ ‘All of them may be good.’
proper-⟨AnPl⟩-pl-prob that-⟨AnPl⟩

(440) Taabóóbée mítyane chémeméhjɨke taabó cóómíyií.

tʰà̋ːpó-ːpɛ́ɛ̀ míːtʲʰà-nɛ̀ tʃʰɛ́mɛ̀-mɛ́-ʔhɨ̀-kʰɛ̀
doctor-⟨SgM⟩ all-⟨ø⟩ be.ill-⟨AnPl⟩-pl-objAn

tʰàːpó-ʔ kʰóːmí-jìí
cure-⟨t⟩ town-oblIn
‘The doctor treated all the sick people in the town.’

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 -ʔhɨ.

(441) a. pʰɛ́ˣkʰò-nɛ̀ (péjcone) ‘nights’
night-pl
b. tʰɛ́-pʰɛ̀ˣkʰó-ʔhɨ̀ (tépejcóhjɨ) ‘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 ɲɛ̀ʔní-ɲɛ (bad-⟨ø⟩) ‘dirty one’ is a qualifier phrase so is pluralized with -ʔhɨ.

(442) a. tʰɯ́tʰákʰó-ìʔʧó-nɛ̀ (túcácóihllóne) ‘cooking pots’
cook-⟨pot⟩-pl

b. í Ⓖ ɲɛ̀ʔní-ɲé-ʔhɨ̀ ‘the dirty ones (from among them)’
self bad-⟨ø⟩-pl

7.3.6 The plural suffix -ʔaɲɛ ‘various’

The pluralizer -ʔaɲɛ (-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) ʧʰèmɛ́-ʔáɲɛ̀ (cheméháñe) ‘various sicknesses’
sickness-var

(445) kʰáːmɛ̀-ʔáɲɛ̀ (cáámeháñe) ‘above (in various places)’
above-var

(446) Diityé úníuháñerícya diícya.
tìːtʲʰɛ́ Ⓖ ɯ́níɯ̀ɯ-ʔáɲɛ̀-rí-kʲʰà tːìːkʲʰà
that-⟨AnPl⟩ beside-var-oblIn-doubt youImp-be
‘Remain beside them.’

Finally, -ʔáɲɛ̀ ‘various’ is used with plural nouns to indicate diversity:

(447) ìjá-mɛ̀-ʔáɲɛ̀ (iyámeháñe) ‘varieties of animals’
animal-⟨AnPl⟩-var

(448) mɨ́ámɯ́náà-ʔáɲɛ̀ (mɨamúnáaháñe) ‘types of people’
people-var

(449) pʰíː-mʲè-ʔáɲɛ̀ (píímyeháñe) ‘types of ants’
ant-⟨AnPl⟩-var

7.3.7 The plural suffix -βa

The pluralizer -βa (-v*a*) ‘plQ’ is used only with numeral phrases and other expressions referring to quantities (such as those described in section 7.5). Examples follow:

(450) mítʲʰá-mɛ̀-βà (mítyámev*a*) ‘many beings (AnPl)’
big/many-⟨AnPl⟩-plQ

(451) pʰíβá-mɛ̀-βà (píváev*a*) ‘numerous beings (AnPl)’
numerous-⟨AnPl⟩-plQ

(452) pʰà-mɛ́-βá-ɾɛ̀ (p*a*méváre) ‘all types of beings (AnPl)’
all-⟨AnPl⟩-plQ-only

(453) mɯ́-ʔtɯ́-mɛ̀-βá (¿Múhdúmevá?) ‘How many
how.many-⟨like⟩-⟨AnPl⟩-plQ (AnPl)?’

(454) a. tʰɛ́-ʔtɯ́-mɛ̀-βà (téhdúmev*a*) ‘that many (AnPl)’
that-⟨like⟩-⟨AnPl⟩-plQ
b. tʰɛ́-ʔtɯ́-kpà-βà (téhdúw*a*v*a*) ‘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-pʰìʔʧʰɯ́ː-ʔàːmɨ́-βà (p*á*pihchúúh*aa*mɨ́v*a*) ‘three papers
all-pile.up-⟨leaf⟩-pl (leaves,…)’
pʰíːnɛ́-ɛ̀-ʔóˣtsʰɨ́-mɛ̀-βà (pɨ́ɨ́néehójtsɨ́mev*a*) ‘four people
half-per-⟨hand⟩-⟨AnPl⟩-pl (or animals)’
tsʰá-ʔòˣtsʰɨ́-nɛ̀-βà (tsáhojtsɨ́nev*a*) ‘five things’
one-⟨hand⟩-⟨ø⟩-pl

[8] Because 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:

singular	dual	plural		
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

7.4 Suffixes that modify nouns

Three suffixes modify noun phrases (including simple nouns, pronouns, numeral phrases, and qualifier phrases): -k^{h}^{L}ópa (-cob*a*) 'augment', -Ⓛ◯kp^{L}ɯ̀ɯ (-wuu) 'diminutive', and -Ⓛɯβɯ (-uvu) 'maximal'.

7.4.1 -cob*a* 'augment'

Suffixed to a noun phrase, -k^{h}^{L}ópa (-cob*a*) 'augment' indicates that its referent is large. The host's final syllable must bear high tone to avoid violating the *LLX constraint; see section 3.10.

(456) a. úmé-ʔé-k^{h}òpà (úméhécob*a*) 'big tree'
tree-⟨tree⟩-aug
b. úmé-ʔé-k^{h}òpá-nɛ̀ (úméhécobáne) 'big trees'
tree-⟨tree⟩-aug-pl

Note that -k^{h}^{L}ópa directly follows and modifies the noun phrase referring to a type of tree. Further note that, in 456b, the pluralizer follows -k^{h}^{L}ópa. However, -k^{h}^{L}ópa may follow the pluralizer, in which case it enhances the plurality of the referent:[9]

(457) a. úmɛ̀-ʔɛ́ː-né-k^{h}òpà (úmehéénécob*a*) 'many trees'
tree-⟨tree⟩-pl-aug
b. kpà^{x}p^{h}íː-mɯ́-k^{h}òpà (w*a*jpíímúcob*a*) 'many men
men-⟨AnPl⟩-aug (or male animals)'

Note the alternate orders of -k^{h}^{L}ópa 'augment' and -mɯ 'plAn' in 458 (where the G over the vowel indicates the genitive low tone):[10]

(458) a. t^{h}^{G}á mɛ́ːní-k^{jh}^{L}ópá-mɯ̀ (t*a*méénícyobámu) 'my big pigs'
my pig-aug-plAn
b. t^{h}^{G}á mɛ́ːní-mɯ́-k^{h}^{L}ópà (támeenímúcob*a*) 'my very many
my pig-plAn-aug pigs'

[9] Perhaps the structure of 456b is [[[úmé-ʔɛ́] -k^{h}òpá] -nɛ̀] while that of 457a is [[úmɛ̀-ʔɛ́ː] [-né-k^{h}òpà]].

[10] In 458a -k^{h}^{L}ópa 'augment' is not part of the stem so the genitive tone Ⓖ docks on the modifier. By contrast, in 458b -mɯ̀ 'plAn' is part of the stem so Ⓖ docks on the head's initial syllable.

7.4.2 -wuu ∼ -wu ‘diminutive, small, few’

Suffixed to a noun phrase, -kpɯ̀(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. ú̱mé-ʔé-kpɯ̀[11] (úméhéwu) ‘small tree’
tree-⟨tree⟩-dim

b. ú̱mé-ʔé-kpɯ̀ɯ́-nɛ̀ (úméhéwuúne) ‘small trees’
tree-⟨tree⟩-dim-pl

(460) tí-ːpʲé-kpɯ̀ (dííbyéwu) ‘he (who is) small’
that-⟨SgM⟩-dim

(461) mɛ́ːní-kpɯ̀ɯ́-ɾɛ́-hɯ̀kʰò (mééníwuúréjuco) ‘ONLY the little pigs’
pig-dim-only-focus

As explained above for -kʰòpa ‘augment’, -kpɯ̀(σ) ‘diminutive’ may follow the pluralizer, in which case it diminishes the plurality of the referent:

(462) a. ú̱mɛ̀-ʔé-ːné-kpɯ̀ (úmehéénéwu) ‘few trees’
tree-⟨tree⟩-pl-dim

b. ù̱ʔhé-mé-kpɯ̀ (uhjémέwu) ‘few (AnPl)’
few-⟨AnPl⟩-dim

7.4.3 -uvu ‘maximal’

Suffixed to a noun phrase, -Ⓛɯβɯ (-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. niːβɯkpa̱-ɯβɯ (níívúwaúvu) ‘dead deer’
deer-max

b. tʰáː Ⓖ kʰäːní-ù̱βù̱ (táácáániuvu) ‘my deceased father’
my father-max

[11] This does not undergo FLTS, probably because the final /ɯ/ is lexically marked as low.

[12] -Ⓛɯβɯ ‘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* tsá*á*hi?
kʰìá-tʰú́ á:nú́-ù̀βù̀ tsʰá:-ʔì
where-sou this(SgM)-max come-⟨t⟩
'From whence does this one (SgM proximate) come (after such a long time)?'

-Ⓛɯβɯ (-uvu) '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] mitʲʰa 'many, much, big', aja 'little, few', ʧʰo̲ʔʲɯ 'little, few', ɯ̲ʔhɛ 'little, few', pʰiβa- 'numerous', or pʰa- 'all, complete'. (The last two are bound roots.)

(465) ù̀ʔhɛ́-mɛ̀-βà (uhjémev*a*) 'few'
few-⟨AnPl⟩-plQ
ù̀ʔhɛ́-mɛ̀ (Uhjéme.) 'They are few.'
few-⟨AnPl⟩

In many cases the classifier is -nɛ̀ ⟨ø⟩, as in 466:

(466) mítʲʰà-nɛ̀ (many-⟨ø⟩ mítya*n*e) 'many (things)'
pʰá-nɛ̀-ːɾɛ̀ (all-⟨ø⟩-only p*á*neére) '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 hóáà 'John' bears -ma 'with' and pʰɛ́:tòrò 'Peter' bears -mɯtsʰsi ⟨DuM⟩:

(467) Péédorómútsí J*óá*á*m*a péé téhullévu.
pʰɛ́:tòɾó-mú́tsʰí hóá:-mà pʰɛ́:-ʔ tʰɛ́-ʔù̀ʧɛ́-βù̀
Peter-⟨DuM⟩ John-with go-⟨t⟩ that-⟨yonder⟩-goal
'Peter and John went over yonder.'

[13] The inanimate indefinite pronouns formed from tsʰa(:)- 'one' or tsʰi(:)- '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 pʰɛ́ːtòɾò but not on hóáà:

(468) Péédorómútsikye *Jóááma ájtyúmɨɨ*be.
pʰɛ́ːtòɾó-mɯ́tsʰì-kʲʰɛ̀ hóáː-mà áˣtʲʰɯ́mɨ̀-ːpɛ̀ '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) ɛ́-ʔtɯ̀ɯ-mɛ̀-(ʔhì) (éhdumehjɨ ∼ éhdume) 'that many
that-like-⟨AnPl⟩-(pl) (animate)'
ɛ́-ʔtɯ̀ɯ-nɛ̀-(ʔhì) (éhdunehjɨ ∼ éhdune) 'that many
that-like-⟨ø⟩-(pl) (inanimate)'
íˣkʲʰà-mɛ̀-(ʔhì) (íjcyámehjɨ ∼ íjcyáme) 'these
be-⟨AnPl⟩-(pl) (animate)'
íˣkʲʰà-nɛ̀-(ʔhì) (íjcyánehjɨ ∼ 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.
pʰɛ́ːtòɾò-ː hóáà-á[14] pʰɛ̀ɾípʰɛ̀-ː ɛ́-ʔtɯ̀ɯ-mɛ̀ pʰɛ́ː-ʔ
Peter-and John-and Philip-and that-⟨like⟩-⟨AnPl⟩ go-⟨t⟩

tʰɛ́-ʔɯɯʧɛ́-βɯ̀ɯ
that-⟨yonder⟩-goal
'Peter, John, and Philip went over yonder.'

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 ɨɨtsɨɨmekee íjcyámeke tsajtyéébe téhullévu.
[í Ⓖ ɲá-ʔpɛ̀]-kʰɛ̀-ː [í Ⓖ ɲáː-ʧɛ̀]-kʰɛ̀-ː
self sib-⟨SgM⟩ -objAn-and self sib-⟨SgF⟩ -objAn-and

[ɨ́ː Ⓖ tsʰɨ́ːmɛ̀]-kʰɛ̀-ː [íˣkʲʰá]-mɛ̀-kʰɛ̀
self children -objAn-and be -⟨AnPl⟩-objAn

[14] In the case of pʰɛ́ːtòɾò and pʰɛ̀ɾípʰɛ̀ 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.

tsʰàˣtʲʰé-ːpè tʰé-ʔɯ̀ʧé-βɯ̀
take-⟨SgM⟩ that-⟨yonder⟩-goal
'He took his brother, his sister, and his children yonder.'

(472) Íñáhbee íñaállee ɨɨtsiɨmee íjcyámeke tsajtyéébe téhullévu.

[[í Ⓖ ɲá-ʔpè]-ː [í Ⓖ ɲàː-ʧè]-ː
self sib-⟨SgM⟩ -and self sib-⟨SgF⟩ -and

[ɨ́ː Ⓖ tsʰìːmè]-ː íˣkʲʰá]-mè-kʰè tsʰàˣtʲʰé-ːpè
self children -and be -⟨AnPl⟩-objAn take-⟨SgM⟩

tʰé-ʔɯ̀ʧé-βɯ̀
that-⟨yonder⟩-goal
'He took his brother, his sister, and his children yonder.'

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 Numeral phrases

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.

Table 7.3 The Bora numeral phrase

NUM	ANIM	GEN	BORA PHRASE
1	inan		tsane
			tsʰà-nɛ̀
	anim	masc	tsaápi
			tsʰàː-pʰì
	anim	fem	tsáápille
			tsʰáː-pʰìʧɛ̀
2	inan		míñéécuú
			mí-ɲé-ːkʰùɯ́
	anim	masc	míítyétsií
			míː-tʲʰɛ́tsʰìí
	anim	fem	míítyépɨɨ́
			míː-tʲʰɛ́pʰɨɨ́
3	inan		pápihchúúneva
			pʰápʰìʔʧʰúː-nɛ̀-βà
	anim		pápihchúúmeva
			pʰápʰìʔʧʰúː-mɛ̀-βà

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NUM	ANIM	GEN	BORA PHRASE
4	inan		pɨ́ɨ́néehójtsɨ́neva
			pʰíːné-è-ʔóˣtsʰí-nè-βà
	anim		pɨ́ɨ́néehójtsɨ́meva
			pʰíːné-è-ʔóˣtsʰí-mè-βà
5	inan		tsáhojtsɨ́neva
			tsʰá-ʔòˣtsʰí-nè-βà
	anim		tsáhojtsɨ́meva
			tsʰá-ʔòˣtsʰí-mè-βà
6	inan		íñejcúéhójtsɨtu tsane
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ tsʰà-nè
	anim	masc	íñejcúéhójtsɨtu tsaápi
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ tsʰàː-pʰì
	anim	fem	íñejcúéhójtsɨtu tsáápille
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ tsʰáː-pʰìʧɛ̀
7	inan		íñejcúéhójtsɨtu míñéécuú
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ mí-ɲé-ːkʰùɪúɪ
	anim	masc	íñejcúéhójtsɨtu míítyétsií
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ míː-tʲʰétsʰìí
	anim	fem	íñejcúéhójtsɨtu míítyépɨ́ɨ́
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ míː-tʲʰépʰìɨ́
8	inan		íñejcúéhójtsɨtu pápihchúúneva
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ pʰápʰìʔʧʰúɪː-nè-βà
	anim		íñejcúéhójtsɨtu pápihchúúmeva
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ pʰápʰìʔʧʰúɪː-mè-βà
9	inan		íñejcúéhójtsɨtu pɨ́ɨ́néehójtsɨ́neva
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ pʰíːné-è-ʔóˣtsʰí-nè-βà
	anim		íñejcúéhójtsɨtu pɨ́ɨ́néehójtsɨ́meva
			í-ɲɛ̀ˣkʰúɪ-é-ʔóˣtsʰɨ-tʰùɪ pʰíːné-è-ʔóˣtsʰí-mè-βà
10	inan		tsáhojtsɨ́cúneva
			tsʰá-ʔòˣtsʰí-kʰúɪ-nè-βà
	anim		tsáhojtsɨ́cúmeva
			tsʰá-ʔòˣtsʰí-kʰúɪ-mè-βà
11	inan		méjtúhatyu tsane
			mé-ˣtʰúʔà-tʲʰùɪ tsʰà-nè
	anim	masc	méjtúhatyu tsaápi
			mé-ˣtʰúʔà-tʲʰùɪ tsʰàː-pʰì
	anim	fem	méjtúhatyu tsáápille
			mé-ˣtʰúʔà-tʲʰùɪ tsʰáː-pʰìʧɛ̀
12	inan		méjtúhatyu míñéécuú
			mé-ˣtʰúʔà-tʲʰùɪ mí-ɲé-ːkʰùɪúɪ
	anim	masc	méjtúhatyu míítyétsií
			mé-ˣtʰúʔà-tʲʰùɪ míː-tʲʰétsʰìí
	anim	fem	méjtúhatyu míítyépɨ́ɨ́
			mé-ˣtʰúʔà-tʲʰùɪ míː-tʲʰépʰìɨ́
13	inan		méjtúhatyu pápihchúúneva
			mé-ˣtʰúʔà-tʲʰùɪ pʰápʰìʔʧʰúɪː-nè-βà
	anim		méjtúhatyu pápihchúúmeva
			mé-ˣtʰúʔà-tʲʰùɪ pʰápʰìʔʧʰúɪː-mè-βà
14	inan		méjtúhatyu pɨ́ɨ́néehójtsɨ́neva
			mé-ˣtʰúʔà-tʲʰùɪ pʰíːné-è-ʔóˣtsʰí-nè-βà

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NUM	ANIM	GEN	BORA PHRASE
	anim		méjtúhatyu pɬɬnéehójtsɬmeva
			mé-ˣtʰúʔà-tʲʰù pʰɬ́ːné-è-ʔóˣtsʰí-mè-βà
15	inan		tsahójtsɬcuma tsájtuháneva
			tsʰà-ʔóˣtsʰí-kʰù-mà tsʰá-ˣtʰùʔá-nè-βà
	anim		tsahójtsɬcuma tsajtúháácyúmeva
			tsʰà-ʔóˣtsʰí-kʰù-mà tsʰà-ˣtʰúʔá-ːkʲʰú-mè-βà
16	inan		íñejcúéjtúhatyu tsane
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù tsʰà-nè
	anim	masc	íñejcúéjtúhatyu tsaápi
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù tsʰàː-pʰì
	anim	fem	íñejcúéjtúhatyu tsáápille
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù tsʰáː-pʰìtʃè
17	inan		íñejcúéjtúhatyu míñéécuú
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù mí-ɲé-ːkʰùʊ́
	anim	masc	íñejcúéjtúhatyu míítyétsií
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù míː-tʲʰétsʰìí
	anim	fem	íñejcúéjtúhatyu míítyépɬɬ
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù míː-tʲʰépʰìɬ
18	inan		íñejcúéjtúhatyu pápihchúúneva
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù pʰápʰìˀʧʰúːnè-βà
	anim		íñejcúéjtúhatyu pápihchúúmeva
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù pʰápʰìˀʧʰúːmè-βà
19	inan		íñejcúejtúhatyu pɬɬnéehójtsɬneva
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù pʰɬ́ːné-è-ʔóˣtsʰí-nè-βà
	anim		íñejcúéjtúhatyu pɬɬnéehójtsɬmeva
			í-ɲèˣkʰú-é-ˣtʰúʔà-tʲʰù pʰɬ́ːné-è-ʔóˣtsʰí-mè-βà
20	inan		tsahójtsɬcuma tsajtúháácyúneva
			tsʰà-ʔóˣtsʰí-kʰù-mà tsʰà-ˣtʰúʔá-ːkʲʰú-nè-βà
	anim		tsahójtsɬcuma tsajtúháácyúmeva
			tsʰà-ʔóˣtsʰí-kʰù-mà tsʰà-ˣtʰúʔá-ːkʲʰú-mè-βà

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 -nɛ (-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.

Table 7.4 The numerals 5, 10, 15, and 20

5	inan	tsáhojtsɨneva
		tsʰá-ʔòˣtsʰí-nɛ̀-βà
		one-⟨hand⟩-⟨ø⟩-plQ
	anim	tsáhojtsɨmeva
		tsʰá-ʔòˣtsʰí-mɛ̀-βà
		‘one hand of’
10	inan	tsáhojtsɨcúneva
		tsʰá-ʔòˣtsʰí-kʰɯ́-nɛ̀-βà
		one-⟨hand⟩-du-⟨ø⟩-plQ
	anim	tsáhojtsɨcúmeva
		tsʰá-ʔòˣtsʰí-kʰɯ́-mɛ̀-βà
		‘two hands of’
15	inan	tsahójtsɨcuma tsájtuháneva
		tsʰà-ʔóˣtsʰí-kʰɯ̀-mà tsʰá-ˣtʰɯ̀ʔá-nɛ̀-βà
		one-⟨hand⟩-du-with one-⟨foot⟩-⟨ø⟩-plQ
	anim	tsahójtsɨcuma tsajtúháácyúmeva
		tsʰà-ʔóˣtsʰí-kʰɯ̀-mà tsʰà-ˣtʰɯ́ʔá-ːkʲʰɯ́-mɛ̀-βà
		‘along with two hands, a foot of’
20	inan	tsahójtsɨcuma tsajtúháácyúneva
		tsʰà-ʔóˣtsʰí-kʰɯ̀-mà tsʰà-ˣtʰɯ́ʔá-ːkʲʰɯ́-nɛ̀-βà
		one-⟨hand⟩-du-with one-⟨foot⟩-du-⟨ø⟩-plQ
	anim	tsahójtsɨcuma tsajtúháácyúmeva
		tsʰà-ʔóˣtsʰí-kʰɯ̀-mà tsʰà-ˣtʰɯ́ʔá-ːkʲʰɯ́-mɛ̀-βà
		‘along with two hands, two feet of’

pʰà- ‘all’ may be used instead of tsʰà- ‘one’ in expressing the numbers for ten, fifteen and twenty:

(473) a. páhojtsɨcúmeva

b. pahójtsɨcuma tsájtyuháwava

c. pahójtsɨcume tsajtyúháácyúneva

a. pʰáʔòˣtsʰɨ́kʰɯ́mɛ̀βà	‘ten beings (AnPl)’
b. pʰàʔóˣtsʰɨ́kʰɯ̀mà tsʰáˣtʲʰɯ̀ʔákpàβà	‘fifteen slabs, tables,…’
c. pʰàʔóˣtsʰɨ́kʰɯ̀mɛ̀ tsʰàˣtʲʰɯ́ʔáːkʲʰɯ́nɛ̀βà	‘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-nɛ̀
			one-⟨ø⟩
	anim	masc	tsaápi
			tsʰà:-pʰì
	anim	fem	tsáápille
			tsʰá:-pʰì-tʃɛ̀
			‘one’
2	inan		míñéécuú
			mí-ɲɛ́-:kʰɯ̀ɯ́
			two-⟨ø⟩-du
	anim	masc	míítyétsií
			mí:-tʲʰétsʰìí
	anim	fem	míítyépɨɨ́
			mí:-tʲʰépʰɨ̀ɨ́
			‘two’
3	inan		pápihchúúneva
			pʰá-pʰì²tʃʰú:-nɛ̀-βà
			all-piled.up-⟨ø⟩-plQ
	anim		pápihchúúmeva
			pʰápʰì²tʃʰú:-mɛ̀-βà
			‘piled up’
4	inan		pɨ́ɨnéehójtsɨ́neva
			pʰɨ́:nɛ́-è-ʔóˣtsʰí-nɛ̀-βà
			half-per-⟨hand⟩-⟨ø⟩-plQ
	anim		pɨ́ɨnéehójtsɨ́meva
			pʰɨ́:nɛ́-è-ʔóˣtsʰí-mɛ̀-βà
			‘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. mí:-tʲʰétsʰìí tsʰà:-pʰì: (míítyétsií tsaápii) ‘three (SgM)’
two-⟨DuM⟩ one-⟨SgM⟩
b. mí:-tʲʰépʰɨ̀ɨ́ tsʰá:-pʰìtʃɛ̀: (míítyépɨɨ́ tsáápillee) ‘three (SgF)’
two-⟨DuF⟩ one-⟨SgF⟩
c. mí:-ɲɛ́-kʰɯ̀ɯ́ tsʰà-nɛ̀ (mííñécuú tsane) ‘three things’
two-⟨ø⟩-du one-⟨ø⟩

The base for the numerals from six to nine is íɲɛ̀ˣkʰɯ́ɛ̀ʔóˣtsʰìtʰɯ̀ ‘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 7.6 The numerals 6–9

6	inan		íñejcúehójtsɨtu tsane
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ tsʰà-nɛ̀
			this-side-per-⟨hand⟩-sou one-⟨ø⟩
	anim	masc	íñejcúehójtsɨtu tsaápi
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ tsʰà:-pʰì
		fem	íñejcúehójtsɨtu tsáápille
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ tsʰá:-pʰì-ʧɛ̀
			‘one from the hand on this side’
7	inan		íñejcúehójtsɨtu míñéécuú
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ mí-ɲɛ́-ːkʰɯ̀ɯ́
			this-side-per-⟨hand⟩-sou two-⟨ø⟩-du
	anim	masc	íñejcúehójtsɨtu míítyétsií
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ míː-tʲʰétsʰìí
		fem	íñejcúehójtsɨtu míítyépɨɨ́
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ míː-tʲʰépʰɨɨ́
			‘two from the hand on this side’
8	inan		íñejcúehójtsɨtu pápichúúneva
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ pʰápʰìʧʰɯ́ː-nɛ̀-βà
			this-side-per-⟨hand⟩-sou piled.up-⟨ø⟩-plQ
	anim		íñejcúehójtsɨtu pápichúúmeva
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ pʰápʰìʧʰɯ́ː-mɛ̀-βà
			‘piled up from the hand on this side’
9	inan		íñejcúehójtsɨtu pɨ́ɨ́néhojtsɨ́neva
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ pʰɨ́ːné-ʔòˣtsʰɨ́-nɛ̀-βà
			this-side-per-⟨hand⟩-sou half-⟨hand⟩-⟨ø⟩-plQ
	anim		íñejcúehójtsɨtu pɨ́ɨ́néhojtsɨ́meva
			í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ pʰɨ́ːné-ʔòˣtsʰɨ́-mɛ̀-βà
			‘half a hand from the hand on this side’

The base for the numerals from eleven to fourteen is mɛ́ˣtʰúʔàtʲʰù̀ ‘from our foot’. To this are added the phrases for the digits given above in table 7.5, as seen in table 7.7.

Table 7.7 The numerals 11–14

11	inan		méjtúhatyu tsane	
			mɛ́	ˣtʰúʔà-tʲʰù̀	tsʰà-nɛ̀
			SAP	foot-sou	one-⟨ø⟩
	anim	masc	méjtúhatyu tsa:pi	
			mɛ́	ˣtʰúʔà-tʲʰù̀	tsʰà:-pʰì
		fem	méjtúhatyu tsáápille	
			mɛ́	ˣtʰúʔà-tʲʰù̀	tsʰá:-pʰì-ʧɛ̀
					‘one from our (SAP’s) foot’
12	inan		méjtúhatyu míñéécuú	
			mɛ́	ˣtʰúʔà-tʲʰù̀	mí-ɲɛ́-ːkʰù̀tú
			SAP	foot-sou	two-⟨ø⟩-du
	anim	masc	méjtúhatyu míítyétsií	
			mɛ́	ˣtʰúʔà-tʲʰù̀	mí:-tʲʰétsʰì́í
		fem	méjtúhatyu míítyépɨɨ	
			mɛ́	ˣtʰúʔà-tʲʰù̀	mí:-tʲʰépʰɨ̀ɨ́
					‘two from our foot’
13	inan		méjtúhatyu pápihchúúneva	
			mɛ́	ˣtʰúʔà-tʲʰù̀	pʰápʰìʔʧʰú:-nɛ̀-βà
			SAP	foot-sou	piled.up-⟨ø⟩-plQ
	anim		méjtúhatyu pápihchúúmeva	
			mɛ́	ˣtʰúʔà-tʲʰù̀	pʰápʰìʔʧʰú:-mɛ̀-βà
					‘piled up from our foot’
14	inan		méjtúhatyu pɨ́ɨ́néehójtsɨ́neva	
			mɛ́	ˣtʰúʔà-tʲʰù̀	pʰɨ́ːné-è-ʔóˣtsʰɨ́-nɛ̀-βà
			SAP	foot-sou	half-per-⟨hand⟩-⟨ø⟩-plQ
	anim		méjtúhatyu pɨ́ɨ́néehójtsɨ́meva	
			mɛ́	ˣtʰúʔà-tʲʰù̀	pʰɨ́ːné-è-ʔóˣtsʰɨ́-mɛ̀-βà
					‘half a hand from our foot’

The base for the numerals from sixteen to nineteen is íɲɛ̀ˣkʰúɛ̀ˣtʰúʔà-tʲʰù̀ ‘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

16	inan		íñejcúéjtúhatyu tsane	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	tsʰà-nɛ̀
			this-side-per-⟨foot⟩-sou	one-⟨ø⟩
	anim	masc	íñejcúéjtúhatyu tsaápi	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	tsʰà:-pʰì
		fem	íñejcúéjtúhatyu tsáápille	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	tsʰá:-pʰì-ʧɛ̀
				‘one from the foot on this side’
17	inan		íñejcúéjtúhatyu míñéécuú	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	mí-ɲé-ːkʰù̀ú
			this-side-per-⟨foot⟩-sou	two-⟨ø⟩-du
	anim	masc	íñejcúéjtúhatyu míítyétsií	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	mí:-tʲʰétsʰìí
		fem	íñejcúéjtúhatyu míítyépɨɨ	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	mí:-tʲʰépʰɨ̀ɨ́
				‘two from the foot on this side’
18	inan		íñejcúéjtúhatyu pápihchúúneva	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	pʰápʰìʔʧʰú:-nɛ̀-βà
			this-side-per-⟨foot⟩-sou	piled.up-⟨ø⟩-plQ
	anim		íñejcúéjtúhatyu pápihchúúmeva	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	pʰápʰìʔʧʰú:-mɛ̀-βà
				‘piled up from the foot on this side’
19	inan		íñejcúéjtúhatyu pɨɨ́néehójtsɨ́neva	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	pʰɨ́:né-è-ʔóˣtsʰɨ́-nɛ̀-βà
			this-side-per-⟨foot⟩-sou	half-per-⟨hand⟩-⟨ø⟩-plQ
	anim		íñejcúéjtúhatyu pɨɨ́néehójtsɨ́meva	
			í-ɲɛ̀ˣkʰú-é-ˣtʰúʔà-tʲʰù̀	pʰɨ́:né-è-ʔóˣtsʰɨ́-mɛ̀-βà
				‘half a hand from the foot on this side’

The numeral phrases given above are the standard forms used by the Iñeje clan,[15] 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) dyetsitséénev*a*
tʲɛ̀tsʰìtsʰé:-nɛ̀-βà[16] '16 things'

(476) w*a*reet*a*tséétéj*a*v*a*
kpàɾɛ̀:tʰàtsʰé:tʰé-hà-βà[17] '47 houses (pants, shirts,…)'

(477) tsiéétó teréét*a* tsééhev*a*
tsʰìé:tʰó tʰɛ̀ɾé:tʰà tsʰé:-ʔɛ̀-βà[18] '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 tsʰà-: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 -:pʲɛ ⟨SgM⟩, although one would expect 'dog' to be plural:

(478) íñejcúehójtsɨtu ts*aa*pi oohííbye
[í-ɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ tsʰà-:pʰì] ò:ʔí-:pʲɛ̀ 'six dogs'
this-side-per-⟨hand⟩-sou one-⟨SgM⟩ dog-⟨SgM⟩

Likewise, in 479, the final word of the numeral phrase, mí:tʲʰépʰɨ́ɨ́, is animate dual feminine, so the quantified noun phrase bears -mɯ́pʰɨ́ ⟨DuF⟩:

(479) íñejcúehójtsɨtu míítyépɨ wáll*e*múpɨ
[íɲɛ̀ˣkʰɯ́-ɛ̀-ʔóˣtsʰɨ̀-tʰɯ̀ mí:-tʲʰépʰɨ́] kpátʃɛ̀-mɯ́pʰɨ́
this-side-per-⟨hand⟩-sou two-⟨DuF⟩ woman-⟨DuF⟩
'seven women'

In 480, the final word of the numeral phrase is animate plural (unspecified for gender) and so the quantified noun phrase bears -mɛ 'plAn':

[16] In Spanish, sixteen is approximately [dʲe.si.séʲs].
[17] In Spanish, forty-seven is approximately [kʷa.ren.taʲ.sʲé.te].
[18] In Spanish, one hundred thirty-six is approximately [sʲén.to treʲn.taʲ.séʲs].

(480) íñejcúehójtsɨtu pápihchúúmeva walléému
[í-ɲɛ̀^{x}k^{h}ú-è-ʔó^{x}ts^{h}ɨ̀-t^{h}ù pʰápʰìʔʧʰúː-mɛ̀-βà] kpàʧɛ́ː-mùu
this-side-per-⟨hand⟩-sou piled.up-⟨AnPl⟩-plQ woman-⟨AnPl⟩
'eight women'

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.

a.	NP	⟶	Adj NP
b.	NP	Ⓒ	NP
c.	NP	Ⓖ	NP
d.	NP	Ⓐ	NP

Figure 7.2 The grammatical relation of prenominal modifiers

We begin in section 7.8.1.1 by illustrating 7.2b and c, using the modifier ɨmɨ^{L}a 'proper, of good quality'.

7.8.1.1 ɬmɨa '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 ɨmɨ^{L}a (ɬmɨa) '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 ɨmɨ̀a stops the classifer 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 ɨmɨ̀a.

(481) a. ɨ́mɨájaa méénuúbe.

b. ɨ́mɨácoo tsívaábe.

a. ɨ́mɨ̀á © hà: mɛ́ːnùɯ̀-ːpɛ̀ 'He made a good house.'
proper house

b. ɨ́mɨ̀á © kʰòː[19] tsʰíβà-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 ɨmɨ̀a blocks the genitive tone from docking on the final syllable.

As a first example, consider 482:

(482) ɨ́mɨ̀áˣ © kʰòː (ɨ́mɨáj 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) ɨ́mɨ̀á máˣʧʰò (ɨ́mɨá májcho) 'good food'
proper eat

ɨ́mɨ̀á átò (ɨ́mɨá ádo) 'good drink'
proper drink

(484) ɨ́mɨá wájyú teene íjcyatúne.

[ɨ́mɨ̀á kpáhʲúɪ] tʰɛ̀ː-nɛ̀ íˣkʲʰà-tʰúɪ-nɛ̀ 'That is not real love.'
proper love that-⟨ø⟩ be-neg-⟨n⟩

[20]This 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 nonfinite verbs, the head is trisyllabic and bears the genitive low tone on the first syllable:

(485) a. ɨ́mɨ́á nʉ̄-ˣpʰákʲʰò (ɨ́mɨ́á nujpácyo) ‘good water’
proper water-⟨liquid⟩

b. ɨ́mɨ́á kpāhʲámʉ̀-mà (ɨ́mɨ́á wajyámu-ma) ‘with good clothes’
proper clothes-with

c. ɨ́mɨ́á ámó-mɛ̀-kʰɛ̀ (ɨ́mɨ́á amómeke) ‘good fish
proper fish-⟨AnPl⟩-objAn (AnPl, acc)’

(486) d. ɨ́mɨ́á ᾱβʲɛ́hʉ̀ː-pɛ̀ (ɨ́mɨ́á avyéjuúbe) ‘good chief’
proper reign-⟨SgM⟩

e. ɨ́mɨ́á ʉ̄ːpátʃɛ̀ (ɨ́mɨ́á uubálle) ‘good news’
proper tell

f. ɨ́mɨ́á kʰā́ʔkʰʉ́ˣtsʰò (ɨ́mɨ́á cahcújtso) ‘good beliefs’
proper believe

g. ɨ́mɨ́á ʉ̄kpáːpò-hʉ̀ (ɨ́mɨ́á uwááboju) ‘good teaching’
proper teach-⟨mouth⟩

h. ɨ́mɨ́á ʉ̄kpáːpò-ˣtʰɛ́-kʰɛ̀ (ɨ́mɨ́á uwáábojtéke) ‘good teachers (acc)’
proper teach-⟨AnPl⟩-objAn

In 487 the head has four syllables. It bears the genitive low tone on the first syllable:

(487) ɨ́mɨ́á nɪːβʉ́kpà-mʉ̀ (ɨ́mɨ́á 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) ɨ́mɨ́á íˣtsʰāmɛ́ì (ɨ́mɨ́á íjtsaméi) ‘good thought’
proper think

ɨ́mɨ́á kpákʰɪmʲéì (ɨ́mɨ́á wákimyéi) ‘good work’
proper work

Because ɨ́mɨ́á ‘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 ɨ́mɨ́á and what it modifies are not related by constituency per se, but stand in a genitive relationship (possessor-possessed).

Although ím̀ɨ́á ‘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) *ímí nɯ̀ɯ-ˣpʰákʲʰò (ímí nujpácyo) ‘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 mítʲʰànɛ̀ (mítyane) ‘much’ precedes the noun (phrase) it modifies, as in 490a where it appears to modify mɨ́ámɯ́nàà ‘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. mítyane mɨ́amúnaa
b. mítyame mɨ́amúnaa

mítʲʰà many -{a. -nɛ̀ ⟨ø⟩ / b. -mɛ̀ ⟨AnPl⟩} Ⓐ mɨ́á mɯ́nàà ‘many people’
SAP people

We understand this as follows. In 490b mítʲʰàmɛ̀ 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 mɨ́ámɯ́nàà ‘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:
ímí-ɲɛ́ Ⓐ nɯ̀-ˣpʰákʲʰò ‘good water’
good-⟨ø⟩ water-⟨liquid⟩
Or one may say the following, using a predicate adjective construction:
ímí nɯ́-ˣpʰàkʲʰò ‘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 pʰèβé-nè ‘ordinary’:

(491) Pevéne majchóré majchóme.
pʰèβé-nè mà^{x}ʧʰó-ɾé mà^{x}ʧʰó-mè ‘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, ɨmɨ̀a ‘just, good’ is an independent adjective; from it qualifier phrases can be formed as in 492:

(492) a. ɨ́mɨ̀á-ːpɛ̀ (ɨmɨáábe) ‘good (SgM)’
b. ɨ́mɨ̀á-^{x}tʰépʰɨ̀ (ɨmɨájtépɨ) ‘good (DuF)’
c. ɨ́mɨ̀á-^{x}tʰɛ̀ (ɨmɨájte) ‘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 -ːkʰɯ ‘duIn’ or -$^{(ʔ)}$hɨ ‘plural’; for example, ɨ́mɨ̀à ‘proper (of good quality, right, righteous, just)’ and -ʔɛ ‘tree, plant’ can be combined to make the qualifier phrase ɨ́mɨ̀áː-ʔɛ̀ ‘good tree (plant,…)’. Examples follow for -kpa ⟨slab⟩ in 493 and -mɨ ⟨canoe⟩ in 494:

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mítʲʰà-mè pʰàɾìtsʰéó ^{G}ɪ́ mʲémé fˣkʲʰá-ʔà múnàà
much-⟨AnPl⟩ Pharisee self name be-⟨group⟩ people
‘many of the group who were called Pharisees’

(493) a. ímɨá:-kpà (ɨ́mɨ́ɑ́ɑ́wa) ‘good slab (plank,…)’
b. ímɨá-kpá-:kʰù (ɨ́mɨ́ɑ́wɑ́ɑ́cu) ‘two good slabs (tables,…)’
c. ímɨá-kpá-ʔhɨ̀ (ɨ́mɨ́ɑ́wɑ́hjɨ́) ‘good slabs (tables,…)’

(494) a. átʰéɾé-è-mì (átéréemɨ́) ‘worthless canoe (ship, car,...)’
b. p átʰéɾé-è-mí-kʰù (átéréemɨ́cu) ‘two worthless canoes (ships, cars,...)’
c. átʰéɾé-è-mí-hɨ̀ (átéréemɨ́jɨ́) ‘worthless canoes ships, cars,...)’

Additional examples follow:

(495) Táñáhbé hajchóóbe.
[tʰá Ⓖ ɲáʔpɛ́] ʔáˣʧʰó-:pɛ̀ ‘He is the same height
my brother same.size-⟨SgM⟩ as my brother.’

(496) Ó imíllé tsaaja jaa óóma u méénune íjyá hajchója.
ó ìmíʧɛ́-ʔì tsʰà:-hà hà: ó:-mà ù mɛ́nù-nɛ̀
I want-⟨t⟩ one-⟨house⟩ house I-with you make-⟨ø⟩

ì-hʲá ʔáˣʧʰó-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) ímɨá-:pɛ́ tsʰá:-ʔì (ɨ́́mɨ́ɑ́ɑ́bé tsɑ́ɑ́hi.) ‘One who is
proper-⟨SgM⟩ come-⟨t⟩ good comes.’

Or they can be the direct object:

(498) míʧʲʰà-nɛ̀ màˣʧʰó-mɛ̀ (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 kpà^{x}p^{h}ì 'man' is in apposition to ɨ́mɨ́á-ːpɛ́ 'good one':

(499) ɨ́mɨ́ɨ́ábé wajpi tsɨ́ɨ́hi.

ɨ́mɨ́á-ːpɛ́	Ⓐ	kpà^{x}p^{h}ì	ts^{h}á:-ʔì
proper-⟨SgM⟩		man	come-⟨t⟩

'A good man comes.'

And this is the general case: qualifier phrases "modify" by the mechanism of apposition: QualifierP Ⓐ 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) ímíʔ o: (Ímí oó.) { 'I am good.' / 'I am in good health.'
good I

Predicate adjectives have high tones on all syllables unless followed by -Ⓛ◯kpɯ̀(ùɪ) 'diminutive', as in example 510.

Predicate adjectives end with a glottal stop,[25] as in 501a and b:

(501) a. ímíʔ tì-ːpʲɛ̀ (Ímí diíbye.) 'He is good.'
good-⟨t⟩ that-⟨SgM⟩
b. ímíʔ-jɛ́ tì-ːpʲɛ̀ (Ímíhyé diíbye.) 'He is only good.'
good-only that-⟨SgM⟩

When the clitic -ɾɛ̀ ∼ -jɛ̀ follows, the glottal stop remains:

(502) ímíʔ-jɛ́-ʔ tì-ːpʲɛ̀ (Ímíhyé diíbye.) 'He is healthy.'
good-only-⟨t⟩ that-⟨SgM⟩

However, if -kpɯ 'diminutive' follows, the glottal stop is dropped:

(503) ìmí-kpúɯ tì-ːpʲɛ̀ (Imíwú diíbye.) 'He is really good (beautiful).'
good-dim that-⟨SgM⟩

With monosyllabic roots, the /i/ of -Ⓛ◯ʔi ⟨t⟩ may undergo FLTS:

(504) ó tó:-ʔìí (Ó dóóhií.) 'I eat (meat).'

[24] A classifier may also head the noun phrase being qualified.
[25] This /ʔ/ may be cognate with -ʔì ⟨t⟩.

7.8.4 Adjectives used as adverbs

Some adjectives may be used adverbially. For example, in 505a imi (imi) ‘good’ is a predicate adjective modifying the subject kʰáràkʰà ‘chicken’ but in 505b it modifies the verb màˣʧʰóʔì ‘eat’:

(505) a. Ímí *cáraca*.
b. Ímí *cáraca majchóhi*.

a. ímíʔ kʰárᴸàkʰà ‘It is a good chicken.’
good chicken

b. ímíʔ kʰárᴸàkʰà màˣʧʰó-ʔì ‘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 imi ‘good’ with a classifier and make “chicken” appositive to the combination, as in 506:

(506) Ímiibye *cáraca majchóhi*.
ímì-ːpʲɛ̀ Ⓐ kʰáràkʰà màˣʧʰó-ʔì ‘The good chicken eats.’
good-⟨SgM⟩ chicken eat-⟨t⟩

Another example of an adjective used adverbially follows:

(507) Mítyane ímíjyuuvéme.
mítʲʰà-nɛ̀ ímíhʲɯ̀-ːβɛ́-mɛ̀ ‘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) (wuu ∼ 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 -Ⓛɯβɯ (-uvu) ‘max’ (7.8.5.4).

7.8.5.1 -wuu ∼ -wu ‘diminutive, very’

The suffix -kpᴸɯ̀ɯ (-wuu) ‘dim’ is used to enhance the meaning of its host. -kpᴸɯ̀ is used word finally and -kpᴸɯ̀ɯ is used when some suffix follows; compare mɛ́ːní-kpɯ̀ ‘little pig’ with mɛ́ːní-kpᴸɯ̀ɯ́-mɯ̀ /mɛ́ːní-kpɯ̀ːmɯ̀/ ‘little pigs’.

When -kpʉ̀(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 #Ⓛ…-kpʉ̀(ʉ̀), that is, it imposes a low tone on the adjective's initial syllable, as in 508–509:

(508) ájá-kpʉ̀ ʉ̀ʉ́ (Ayáwu uú.) 'You are very tiny.'
small-dim you

(509) ímí-kpʉ̀ tì:-ʧɛ̀ (Imíwu diílle.) 'She is beautiful.'
good-dim that-⟨SgF⟩

When #Ⓛ…-kpʉ̀(σ) 'dim' follows a scalar adjective, it indicates an extreme degree on the (implied) scale, as illustrated in 510:

(510) Imíwu dɬjtsɨɨméne.

ìmí-kpʉ̀ tɨ́ ˣtsʰɪ̀:ménɛ̀ 'Your baby is very
good-dim your child good (or pretty).'

Because ìmí-kpʉ̀ 'very good' is the predicate in 510, we might expect it to bear all high tones, but -kpʉ̀ 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. ʧʰɛ́mé-pʰí[(ʔ)26] tì-:pʲɛ̀ 'He is sickly'
sick-excess that-⟨SgM⟩

b. ʧʰɛ́mé-pʰí-kpʉ̀ tì-:pʲɛ̀ 'He is very sickly'
sick-excess-dim that-⟨SgM⟩

(512) a. Wákímyéípí diíbye.
b. Wakímyéípíwu diíbye.

a. kpákʰímʲéí-pʰí[(ʔ)] tì-:pʲɛ̀ 'He is a hard worker.'
work-excess that-⟨SgM⟩

b. kpákʰímʲéí-pʰí-kpʉ̀ tì-:pʲɛ̀ '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

[26] -Ⓛ◯pʰi 'excessive' derives stative verbs (adjectives) from verbs; see also examples 193 and 194, page 117.

somewhat big, with *small* it means *somewhat small*, and so forth. Examples follow. Note that -itʃʰo '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(ʔ) tì-:pʲɛ̀ (Áyá diíbye.)
small that-⟨SgM⟩

b. ájá-ítʃʰóʔ tì-:pʲɛ̀ (Áyáichó diíbye.)
small-ish that-⟨SgM⟩

c. ájá-ítʃʰò-:pɛ̀ (Áyáichoóbe.)
small-ish-⟨SgM⟩

a. 'He is small.'
b,c. 'He is somewhat small (medium sized, not very small).'

(514) mítʲʰá-ítʃʰóʔ tì-:pʲɛ̀ (Mítyáichó diíbye.) 'He is rather big.'
big-ish that-⟨SgM⟩

(515) a. Kéémú diílle.
b. Kéémúíchó diílle.

a. kʰɛ́:mú
b. kʰɛ́:mú-ítʃʰó
big-ish
} tì:-tʃɛ̀ (that-⟨SgF⟩) { a. 'She is big.' b. 'She is medium sized (not very big).'

(516) a. Í mityáichóóbeke tsiva
b. Í ayáichóóbeke tsiva
c. Í ayáichóóbéwuúke tsiva

a. í mìtʲʰá-ítʃʰó-:pɛ̀-kʰɛ̀
self large-ish-⟨SgM⟩-objAn
b. í àjá-ítʃʰó-:pɛ̀-kʰɛ̀
self small-ish-⟨SgM⟩-objAn
c. í àjá-ítʃʰó-:pé-kpɯ̀ú-kʰɛ̀
self small-ish-⟨SgM⟩-aug-objAn
} tsʰìβà bringImp

'Bring me one of them that is { a. somewhat large.' b. somewhat small.' c. very small.'

7.8.5.3 The co-occurrence of -kpɯ(ɯ)(:) and -itʃʰo

The suffixes -kpɯ(ɯ)(:) (-wuu) 'diminutive' and -itʃʰo (-icho) 'somewhat' may co-occur in the same word, as in 516c, 517, and 518:

(517) Áyáichówú cahgúnuco mewájtúíyoki.
ájá-ìtʃʰó-kpʊ́ɪ́ kʰàʔkʊ́ɪnʊ̀ɪ-kʰò mɛ̀ kpáˣtʰʊ́ɪ-í-jò-kʰì
small-ish-dim manioc.drink-⟨cls⟩ SAP serve-fut-frs-pur
'There is too little manioc drink for us to serve.'

(518) Cáracáwu dsɨjɨvé íñehnííchóóbéwuúvu.
kʰáràkʰá-kpʊ̀ɪ tsɨ́hìβé-ʔ í ɲɛ̀ʔní-ːtʃʰó-ːpé-kpʊ̄ɪ̄ʊ́ɪ́-βʊ̀ɪ
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**'

-Ⓛɯβɯ (-uvu) 'maximal' can be added to an adjective to indicate its maximum degree, as in 519 and 520:

(519) àˣtʲʰʊ́βá-nè-ʊ́βʊ̀ɪ (ajtyúváneúvu) 'the most brilliant
green-⟨ø⟩-max green (or blue) thing'

(520) ímí-ɲè-ʊ́βʊ́ɪ mɛ́ːnʊ̀ɪ-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: ±SAP, ±singular; +SAP: ±1person; −singular: ±dual; +dual: ±masc; −SAP, +singular: ±masc.

The morphemes from which these words are formed are: o [+1person, +singular], ɯ [−1person, +singular], mɯˀ- ∼ mɯː- [+SAP, −singular], ti(ː)- [−SAP], tsʰi- [+masc], -ˀpʰɨ [−masc], a- [−1person, −singular:], -tʲʰɛ [−SAP, −singular], mɛ [+1person, −exclusive], -ːpɛ [+SAP, +singular, +masc], -ʧɛ [+SAP, +singular, −masc], -ʔa [+SAP, −dual]

Table 8.1 Personal pronouns

	singular		dual		plural
	masculine	feminine	masculine	feminine	
1	o oó		mʉ̀ʉ̀ʔ-tsʰì muhtsi	mʉ̀ʉ̀ʔ-pʰɨ̀ muhpɨ	mʉ̀ʉ̀:-ʔà[a] muúha
2	ɯ[b] uú		á-mʉ̀ʉ̀ʔ-tsʰì ámuhtsi	á-mʉ̀ʉ̀ʔ-pʰɨ̀ ámuhpɨ	á-mʉ̀ʉ̀:-ʔà ámuúha
3	tì-ːpʲɛ̀ diíbye	tì:-ʧɛ̀ diílle	tì:-tʲʰɛ́tsʰì diityétsi	tì:-tʲʰɛ́pʰɨ̀ diityépɨ	tì:-tʲʰɛ̀[c] diítye

[a]This is the first person plural *exclusive* form. The corresponding *inclusive* form is mɛ 'SAP'. See example 524.

[b]In example 1182 ɯ 'you' followed by -ma 'with' at the end of a phrase becomes úːɯ-màá '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 'objAn': tì:-tʲʰɛ́-kʰɛ̀ 'to those (AnPl)'. Other pronouns formed with -tʰɛ̀ 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 mɛ 'SAP', and (2) combinations of tiː- 'that' and an animate classifier like -tsʰɨ̀ '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 péétyú.

tsʰa̋ʔ tì-pʲɛ̀ pʰɛ́ː-ì-tʲʰɯ́ '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; mɛ 'SAP' occurs in 522 where the verb is phonetically [mépʰɛ̀ɛ́ʔ]:

(522) mɛ́ pʰɛ̀-ɛ́-ʔì (Mépeéhi.) 'Let's (in.) go.'
SAP go-fut-⟨t⟩

When the subject is a first or second person dual or plural pronoun, mɛ 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:

(523) a. Muha mepéjucóóhi.
b. ¿A ámuhtsi metsááhi?
a. mùʔà mɛ̀ pʰɛ́-hɯ̀kʰó:-ʔì ‘We (ex.)
we SAP go-now-⟨t⟩ are going now.’
b. à ámùʔtsʰì mɛ̀ tsʰá:-ʔì ‘Are you (DuM)
ques you(DuM) SAP come-⟨t⟩ coming?’

Note the following contrast:

(524) a. Teene újcuube memájchoki.
b. Teene újcuube muha memájchoki.

tʰɛ̀:-nɛ̀ úʳkʰù-:pɛ̀ { a. ø / b. mùʔà } mɛ̀ máʳʧʰò-kʰì
that-⟨ø⟩ get-⟨SgM⟩ { / we } SAP eat-pur

‘He got that in order that we ({ a. inclusive / b. exclusive }) eat it.’

The personal pronouns may occur with case markers. When they are direct objects, they bear -Ⓛkʰɛ ‘objAn’, as in 525 and 526:[2]

(525) ó áʳtʲʰɯ̀mɨ́-ʔ tí-:pʲɛ̀-kʰɛ̀ (Ó ájtyumɨ́ dííbyeke.) ‘I saw
I see-⟨t⟩ that-⟨SgM⟩-objAn him.’

(526) Ó ájtyumɨ́ ámúhpɨke.
ó áʳtʲʰɯ̀mɨ́-ʔ ámú-ʔpʰì-kʰɛ̀ ‘I saw you two (DuF).’
I see-⟨t⟩ you-DuF-objAn

When they are goals, they take -(ʔ)ti ‘animate’ along with -βɯ̀ ‘goal, theme’, as in 527:[3]

(527) Oke daacu tétsɨdívu.
ò-kʰɛ̀ tà:kʰɯ̀ ɯ tʰɛ́-tsʰì-tí-βɯ̀ ‘Give me that baby.’
I-objAn give that-⟨baby⟩-anim-thm

When o, ɯ, and mɛ are used as direct objects (followed, of course, by -kʰɛ ‘objAn’) they have a single vowel, as in 528 and 529:

(528) ò-kʰɛ̀ ɨ́:tʰɛ̀-:pɛ̀ (Oke ɨ́ɨteébe.) ‘He looks at me.’
I-objAn look-⟨SgM⟩

(529) mɛ̀-kʰɛ̀ ɨ́:tʰɛ̀-ʧɛ̀ (Meke ɨ́ɨtelle.) ‘She looks at us (in.).’
SAP-objAn look-⟨SgF⟩

[2]Another example is ò-kʰɛ̀ ‘I-objAn’ in 527; see the following footnote.

[3]The first person pronoun is marked as a direct object due to the animacy-motivated inversion discussed on page 662, while tʰɛ-tsʰɨ ‘that-⟨child⟩’ (a personal pronoun, as stated just after table 8.1) is marked as goal or theme.

However, in single word responses to questions the vowel is long, as in 530:

(530) a. ò:-kʰɛ̀ (Oóke.) 'To me.'
b. mɛ̀:-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 tí-ːpʲɛ̀ (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.[4]

(531) T*áñah*be oke úhb*á*pejtsó dííbye j*á*vu o péébeke.

tʰá Ⓖ ɲa̲-ʔpɛ̀ ò$_i$-kʰɛ̀ úʔpá-pʰɛ̀ˣtsʰó-ʔ
my sib-⟨SgM⟩ I-objAn upbraid-meet-⟨t⟩

Ⓐ [[tí-ːpʲɛ̀ há]-βʉ̀ ò$_i$ pʰɛ̰]-ːpɛ̀$_i$-kʰɛ̀
that-⟨SgM⟩ house -goal I go -⟨SgM⟩-objAn
'My brother bawled me out right when I arrived at his house.'

[4]Note further that what is interpreted as a time adverbial is structurally a postpositional phrase in apposition to the direct object.

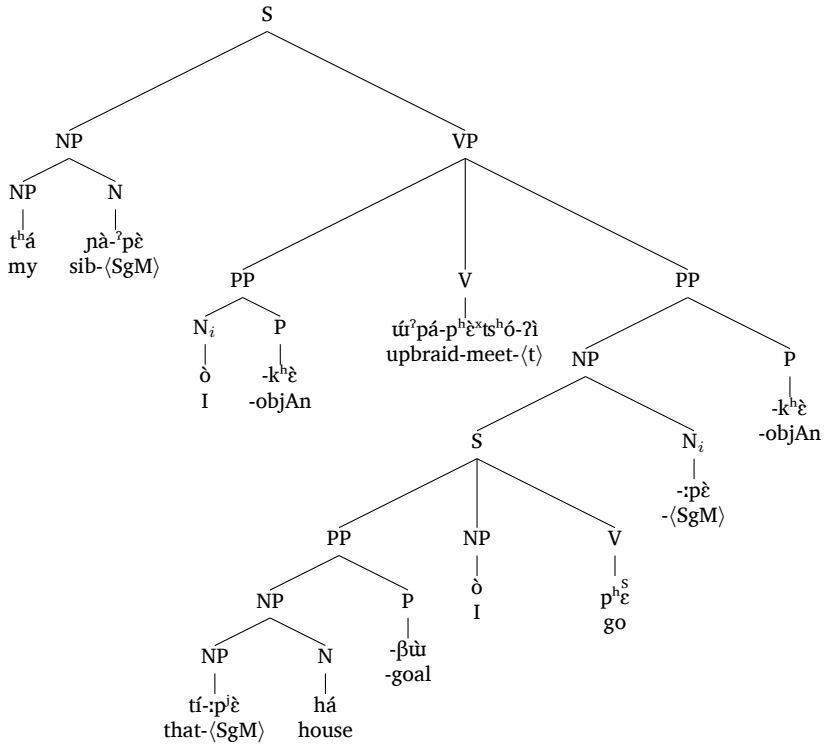


Figure 8.1 STR: example 531

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 tsʰa̋ʔ(a) and -tʰɯ 'neg' an overt pronoun (or noun phrase) is required, but if it is negated (contrastively) with -hɨ̀ː(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. tʰɛ̀ː-nɛ̀ (teéne) 'that thing (in general)'
b. tʰɛ̀ː-kpà (teéwa) 'that slab (plank, table, etc.)'
c. tʰɛ̀ː-mì (teémɨ) 'that canoe (airplane, car,…)'
d. tʰé-ʔàːmì (téhaámɨ) 'that leaf (paper, book,…)'

The dual is formed by adding -ːkʰɯ 'duIn' and the plural is formed by adding -(ʔ)hɨ 'plural'. Examples are given in 533:[7]

(533) a. tʰé-nɛ̀-ːkʰɯ̀ (téneécu) 'those two things (in general)'
b. tʰé-kpà-ʔhɨ̀ (téwahjɨ) 'those slabs (benches,…)'
c. tʰé-ʔàːmɨ́-kʰɯ̀ (téhaamɨ́cu) 'those two books (leaves,…)'
d. tʰé-ʔàːmɨ́-hɨ̀ (téhaamɨ́jɨ) '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) tsʰa̋ʔ tʰɛ̀-nɛ̀ ímì-tʲʰɯ́-(nɛ̀) (Tsá tene ímityú(ne).) 'That is bad.'
not that-⟨ø⟩ 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 -ːkʰɯ̀ 'duIn' 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 -Ⓛ$k^h\varepsilon$ 'objAn'; see 535. Nor do they take -$^?$ti 'animate' with -βʉ̀ 'goal, theme'; see 536.

(535) Ó *á*jtyum*ɨ́* te*é*w*a*.
ó á^{x}t^{jh}ʉ̀mɨ́-$^?$ t^{h}ὲ:-kpà 'I saw that slab (plank, table,…)'
I see-⟨t⟩ that-⟨slab⟩

(536) Oke d*aa*cu t*éé*w*a*vu.
ò-k^{h}ὲ tà:k^{h}ʉ̀ t^{h}ɛ́:-kpà-βʉ̀ '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.

t^{h}ὲ:-nὲ ʉ́^{x}k^{h}ʉ̀-:pὲ { a. ì self / b. tì-p^{j}ὲ that-⟨SgM⟩ } má^{x}ʧ^{h}ò-k^{h}ì
that-⟨ø⟩ get-⟨SgM⟩ eat-pur

[9]Technically, 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$_i$ got that in order that he$_j$ eat it.

COMPLEMENT CLAUSES:

In 538 ì máˣʧʰò-nɛ̀ (self eat-⟨n⟩) is the complement of the ímíʧɛ- '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.

ìmíʧɛ́-mɛ́ want-⟨AnPl⟩ { a. ì self / b. tì-pʲɛ̀ that-⟨SgM⟩ } máˣʧʰò-nɛ̀ eat-⟨ø⟩

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 imílleebe dihñe iújcune.

[ìˀ-ɲɛ̀ ì̲ mɯ̲̊ˢˣtʰá-tsʰó]-nɛ̀ ìmíʧɛ̀-ːpɛ̀
self-⟨ø⟩ self lose-cause -⟨event⟩ want-⟨SgM⟩

[tìˀ-ɲɛ̀ ì̲ ɯ́ˣkʰɯ̀]-nɛ̀ your-⟨ø⟩ self obtain -⟨ø⟩
'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-ːpʲɛ must refer to someone outside of this domain, that is, someone other than John:

(540) a. *Jóáa* péé ihjyávu.

b. *Jóáa* péé dííbye jávu.

hóáà pʰéː-ʔì
John go-⟨t⟩

a. iᴳʔ — self — hʲá-βʉ̀ — house-goal
b. tí-ːpʲᴳɛ — that-⟨SgM⟩ — há-βʉ̀ — house-goal

a. 'John$_i$ went to his$_i$ house.'
b. 'John$_i$ went to his$_j$ house. ($i \neq j$)'

And i 'self' behaves as an anaphor when it is part of a free possessive pronoun. For example, iʔɲɛ '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 waajácú* íoohííbye dsɬjɨvéne.

hóáà$_i$ kpàːhákʰʉ́-ʔ [í$_i$ Ⓖ oːʔíː-pʲɛ̀ tsɬhɨ̀βɛ́]-nɛ̀
John know-⟨t⟩ self dog-⟨SgM⟩ die -⟨ø⟩
'John$_i$ knows that his$_i$ 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) Íoohííbye *Jóáake* ɨhdóhi.

í Ⓖ oːʔíː-pʲɛ̀ hóáː-kʰɛ̀ ɨʔtó-ʔì 'John$_i$'s dog bit him$_i$.'
self dog-⟨SgM⟩ John-objAn bite-⟨t⟩

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.

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 8.2 The roots of demonstrative pronouns

	PROXIMATE	MEDIAL	DISTAL
animate	í-	à:-	á:-
inanimate	í-	è:-	ɛ́ˀ-

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 à:- 'medial'. The distal pronouns are formed with á:- 'distal'. See table 8.3.

Table 8.3 Animate demonstrative pronouns

		proximate (í-)	medial (à:-)	distal (á:-)
singular	masculine	á:nʉ̀ *áánuú*	à:-pʲɛ̀ *aábye*	á:-tì (*áádií*)
	feminine	á:mʲɛ̀ *áámyeé*	à:-tʃɛ̀ *aálle*	á:-tʃɛ̀ (*áálleé*)
dual	masculine	í-ˣtʲʰɛ̀-tsʰì *íjtyetsi*	à:-tʲʰɛ́-tsʰì *aatyétsi*	á:-tʲʰɛ́-tsʰì *áátyétsií*
	feminine	í-ˣtʲʰɛ̀-pʰɨ̀ *íjtyepɨ*	à:-tʲʰɛ́-pʰɨ̀ *aatyépɨ*	á:-tʲʰɛ́-pʰɨ̀ *áátyépɨɨ́*
plural		í-ˣtʲʰɛ̀ *íjtyeé*	à:-tʲʰɛ̀ *aátye*	á:-tʲʰɛ̀ *áátyeé*

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) á:nʊ̀ʊ̀ tsʰá-hʊ̀ʊ̀kʰó:-ʔì (Áánu tsájucóóhi.) 'This one (SgM)
this.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 tì-:pʲɛ̀ (¿Kiá diíbye?) 'Where is he?'
where that-⟨SgM⟩ (lit. 'Where he?')

b. á:nʊ̀ʊ̀: (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 í- 'demonstrative proximate' ɛ(:)- 'medial' and ɛ́ʔ- 'distal'. For example, see é-ˣpʰì in 545 and ɛ́ʔ-kpà: in 546:

(545) tsʰí-ˣpʰì é-ˣpʰì (tsíjpi éjpi) 'another's person
other-⟨SgM⟩ that-⟨SgM⟩ (or animal)'

(546) ...dihñéwaa Moitsée éhwaa, Ería éhwaa...
[tìʔɲɛ́-kpà:] [mòìtsʰɛ́ɛ́ ɛ́ʔ-kpà:] [ɛ̀ría ɛ́ʔ-kpà:]
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 -ʔa:mɨ 'leaf, paper, book, bill, and similar things'. The proximate, medial, and distal demonstratives are given as singular, dual (with -:kʰɯ 'duIn'), and plural (with -(ʔ)hɨ '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 a:-, namely the singular masculine proximate and distal forms. In á:-tì: the palatalization may simply be masked by the following /i/. It may be that in á:-nʊ̀ʊ̀: 'this (SgM)' palatalization is blocked to avoid confusion with àɲʊ̀ 'buzzard'; witness á:nʊ̀ʊ̀-kʰɛ̀ 'to him' versus áɲʊ̀-kʰɛ̀ 'to the buzzard'.

Table 8.4 Inanimate demonstrative pronouns

		singular	dual	plural
proximate (í-)	thing	í-ɲɛ̀ íñeé	í-ɲɛ̀-ːkʰʉ̀	í-ɲɛ̀-ʔhì íñehjɨ
	slab	í-kpà íwaá	í-kpà-ːkʰʉ̀ íwaácu	í-kpà-ʔhì íwahjɨ
	leaf	í-ʔʲà:mì íhyaámɨ	í-ʔʲà:mɨ́-kʰʉ̀ íhyaamɨ́cu	í-ʔʲà:mɨ́-hì íhyaamɨ́jɨ
	…	…	…	…
medial (é:^{L}ʊ-)	thing	è:-nɛ̀ eéne	é-nɛ̀-ːkʰʉ̀ éneécu	é-nɛ̀-ʔhì énehjɨ
	slab	è:-kpà eéwa	é-kpà-ːkʰʉ̀ éwaácu	é-kpà-ʔhì éwahjɨ
	leaf	é-ʔà:mì éhaámɨ	é-ʔà:mɨ́-kʰʉ̀ éhaamɨ́cu	é-ʔà:mɨ́-hì éhaamɨ́jɨ
	…	…	…	…
distal (ɛ́ʔ^{H}ʊ-)	thing	ɛ́ʔ-nɛ̀ (éhneé)	ɛ́ʔ-nɛ́-ːkʰʉ̀ éhnéécuú	ɛ́ʔ-nɛ́-ʔhì éhnéhjɨ́
	slab	ɛ́ʔ-kpà éhwaá	ɛ́ʔ-kpá-ːkʰʉ̀ éhwáácuú	ɛ́ʔ-kpá-ʔhì éhwáhjɨ́
	leaf	ɛ́ʔ-ʔá:mì éháámɨ́	ɛ́ʔ-ʔá:mɨ́-kʰʉ̀ éháámɨ́cuú	ɛ́ʔ-ʔá:mɨ́-hì éháámɨ́jɨ́
	…	…	…	…

The combination of ɛʔ- 'that' and -nɛ ⟨ø⟩ 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-ːpʲ^{G}ɛ́ ɛ́ʔ-nɛ̀ (dííbye éhne) 'that thing belonging
that-⟨SgM⟩ that-⟨ø⟩ 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 tsʰà:- ‘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 tsʰi- ‘other’ and refer to some “other(s)”.

Table 8.5 Animate indefinite pronouns: ‘one’

	singular	dual	plural
masculine	tsʰà-ːpʰì tsa*á*pi	tsʰà-ːtʰé-tsʰì tsa*a*tétsi	tsʰà-ːtʰè tsa*á*te
feminine	tsʰá-ːpʰì-ʧè ts*áá*pille	tsʰà-ːtʰé-pʰɨ̀ tsa*a*tépɨ	

The root tsʰaː- ‘one, each’ only occurs followed by a classifier; thus, “one man” or “one woman” is said as in 548:

(548) a. Tsa*a*pi (wajpi) ts*áá*hií.

b. Tsa*a*pille (walle) ts*áá*hií.

a. tsʰà-ːpʰì (kpà-ˣpʰì)
one-⟨SgM⟩ person-⟨SgM⟩
b. tsʰà-ːpʰìʧè (kpà-ʧè)
one-⟨SgF⟩ person-⟨SgF⟩
} tsʰáː-ʔìː come-⟨t⟩ ‘One man came.’ ‘One woman came.’

Table 8.6 Animate indefinite pronouns: ‘other’

	singular	dual	plural
masculine	tsʰì-ˣpʰì tsijpi	tsʰí-ˣtʲʰè-tsʰì tsíjtyetsi	tsʰì-ˣtʲʰè tsijtye
feminine	tsʰí-ˣpʰì-ʧè tsíjpille	tsʰí-ˣtʲʰè-pʰɨ̀ tsíjtyepɨ	

The pronouns in tables 8.5 and 8.6 result from combining morphemes from three sets; see table 8.7:[11]

[11]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

DETERMINER		NUMBER		NUMBER-GENDER	
tsʰaː-	‘one’	-ˣpʰi[a]	‘singular’	-ʧɛ	⟨SgF⟩
tsʰiː-	‘other’	-ˣtʰɛ	‘nonsingular’	-tsʰi	⟨DuM⟩
				-pʰɨ	⟨DuF⟩

[a] -ˣpʰi means ‘body’ but there is no simple gloss for -ˣtʰɛ.

Other animate indefinite pronouns are now illustrated. Those in 549 have tsʰaː- ‘one, each (indefinite)’, those of 550 have tsʰiː- ‘other’.

(549) a. tsʰáː-pʰìː-tsʰà (tsáápiítsa) ‘each one (SgM)’
one-⟨SgM⟩-one

b. tsʰáː-pʰìʧé-tsʰà (tsáápillétsa) ‘each one (SgF)’
one-⟨SgF⟩-one

c. tsʰà-múɯtsʰì (tsamútsi) ‘both (DuM)’
one-⟨DuM⟩

d. tsʰà-muɯpʰɨ́ (tsamúpɨ) ‘both (DuF)’
one-⟨DuF⟩

e. tsʰà-mé-ːɾɛ̀ (tsaméére) ‘all of a group (AnPl)’
one-⟨AnPl⟩-only

(550) a. tsʰí-ɛ̀mé-ˣpʰì (tsíeméjpi) ‘another one (SgM)’
other-sim-sg

b. tsʰí-ɛ̀mé-ˣtʰɛ̀ (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-ɾɛ̀[12] tsʰáː-ʔìː (Pámeváre tsááhi.) ‘All kinds (AnPl) came.’
all-⟨AnPl⟩-pl-only come-⟨t⟩

[12] We 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 tsʰí-ɛ̀mɛ́- '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 -ːkʰɯ 'duIn' or -(ʔ)hɨ 'plural'. These are illustrated in tables 8.8–8.10 with the classifiers -nɛ ⟨ø⟩, -ʔɛ 'tree, plant', and -(ʔ)pa 'soft fruits, thick drinks, and such'. (Note the quantity shifts.)

Table 8.8 Inanimate indefinite pronouns: 'one'

	singular	dual	plural
	one	both	some
thing	tsʰà-nɛ̀ tsɑne	tsʰá-nɛ̀-ːkʰɯ̀ tsáneécu	tsʰá-nɛ̀-ʔhɨ̀ tsánehjɨ
tree	tsʰà-ʔɛ̀ tsɑhe	tsʰá-ʔɛ̀-ːkʰɯ̀ tsáheécu	tsʰá-ʔɛ̀-ʔhɨ̀ tsáhehjɨ
fruit	tsʰà-ʔpà tsɑhbɑ	tsʰá-pà-ːkʰɯ̀ tsábɑácu	tsʰá-pà-ʔhɨ̀ tsábahjɨ
…	…	…	…

Table 8.9 Inanimate indefinite pronouns: 'other'

	singular	dual	plural
	another	two others	others (various)
thing	tsʰì-ːɲɛ̀ tsiíñe	tsʰí-ɲɛ̀-ːkʰɯ̀ tsíñeécu	tsʰí-ɲɛ̀-ʔhɨ̀ tsíñehjɨ
tree	tsʰì-ːʔɛ̀ tsiíhe	tsʰí-ʔɛ̀-ːkʰɯ̀ tsíheécu	tsʰí-ʔʲɛ̀-ʔhɨ̀ tsíhyehjɨ
fruit	tsʰì-ʔpà tsihbɑ	tsʰí-pà-ːkʰɯ̀ tsíbɑácu	tsʰí-pà-ʔhɨ̀ tsíbahjɨ
…	…	…	…

Table 8.10 Inanimate indefinite pronouns: ‘some’

	singular	dual	plural
	some (one)	some (two)	some (various)
thing	tsʰí-èmɛ́-nɛ̀ tsíeméne	tsʰí-èmɛ́-né-ːkʰɯ̀ tsíeménéécu	tsʰí-èmɛ́-né-ʔhɨ̀ tsíeménéhjɨ
tree	tsʰí-èmɛ́-ʔɛ̀ tsíeméhe	tsʰí-èmɛ́-ʔɛ́-ːkʰɯ̀ tsíeméhéécu	tsʰí-èmɛ́-ʔɛ́-ʔhɨ̀ tsíeméhéhjɨ
fruit	tsʰí-èmɛ́-pà tsíeméba	tsʰí-èmɛ́-pá-ːkʰɯ̀ tsíemébáácu	tsʰí-èmɛ́-pá-ʔhɨ̀ tsíemébáhjɨ
…	…	…	…

Other inanimate indefinite pronouns are now illustrated. Those in 553 have the suffix -ːtsʰa ‘each’.

(553) a. tsʰá-nɛ̀-ːtsʰà (tsáneétsa) ‘each thing (one after the other)’
b. tsʰá-ʔɛ̀-ːtsʰà (tsáheétsa) ‘each tree (one after the other)’
c. tsʰá-pà-ːtsʰà (tsábaátsa) ‘each fruit (one after the other)’

(554) pʰá-nɛ̀-ːɾɛ̀ (páneére) ‘all (things)’[13]
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

BOUND POSSESSIVE PRONOUNS			FREE POSSESSIVE PRONOUNS		
tʰa	(tɑ-)	'my'	tʰa-ʔɲɛ	(tahñe)	'mine'
ti	(di-)	'your'	ti-ʔɲɛ	(dihñe)	'yours'
mɛ	(me-)	'our (in.)'	mɛ-ʔnɛ	(mehne)	'ours (in.)'
mɯ	(mu-)	'of whom'	mɯ-ʔnɛ[a]	(muhne)	'whose?'
i[b]	(i-)	'self's'	i-ʔɲɛ	(ihñe)	'self's'[c]

[a] The final /e/ of mùʔnɛ́ '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-, mɛ- 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] (íjyɑá) 'this house'
this-⟨shelter⟩
b. /ìʔ hà/ [ìʔhʲà] (ihjyɑ) '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 -nɛ. ⟨ø⟩ to a bound possessive pronoun; these now function as a single

[14] In the following possessed forms of tsʰìːmɛ 'child' there are two curious alternations:

	SELF'S		MY	
CHILD	íˣtsʰìːménè	'self's child'	tʰáˣtsʰìːménè	'my child'
CHILDREN	íːtsʰìːmè	'self's children'	áːtsʰìːmè	'my children'

(1) The initial syllable of each *singular* form ends with ˣ 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.

unit.[15] 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:[16]

(557) tʰàʔɲé-ˣpʰì (tahñéjpi) 'my person or animal (SgM)'
mine-⟨SgM⟩

(558) mʉ̀ʉʔné-ʧɛ̀ (muhnélle) 'whose person or animal (SgF)?'
whose-⟨SgF⟩

(559) mɛ̀ʔné-ˣtʰɛ̀ (mehnéjte) 'our (in.) persons or animals'
our-pl

(560) páneere ihñénéhjɨma
pʰá-nɛ̀-ːɾɛ̀ ìʔɲé-né-ʔhì-mà 'with all the things
all-⟨ø⟩-only self's-⟨ø⟩-pl-with that belong to him'

(561) a. tìʔɲé-ʔáːmì (dihñéháámɨ) 'your leaf (paper, book,…)'
your-⟨leaf⟩
b. tʰàʔɲé-kpá-ːkʰʉ̀ (tahñéwáácu) 'my two slabs (planks, machetes,…)'
my-⟨slab⟩-du
c. mɛ̀ʔné-ʔàːmí-hì (mehnéhaamɨjɨ) 'our leaves (papers, books,…)'
our(in.)-⟨leaf⟩-pl

(562) ìʔɲé-kpà (ihñéwa) 'his (self's) slab (table, machete,…)'
self's-⟨slab⟩

(563) ìʔɲé-íʔʧó Ⓖ pʰᴸǎŋɛ̀ (ihñéíhlló pañe) 'inside his (self's) cooking pot'
self's-⟨pot⟩ inside

The free possessive pronoun may itself be used as a noun phrase:

(564) ì$_i$-ʔɲɛ̀ tsʰíβà-ːpɛ̀$_i$ (Ihñe tsívaábe.) 'He$_i$ brought his$_i$ own.'
self-⟨ø⟩ bring-⟨SgM⟩

[15] Evidence for this claim is that a classifier may follow, as in 560, even the classifier -nɛ ⟨ø⟩, as in example 560.

[16] By contrast, the *bound* possessive pronouns are never followed directly by a classifier other than -nɛ̀ ⟨ø⟩. Thus, in 556b, ha is the noun 'house' and not the classifier -ha ⟨shelter⟩.

(565) a. Oke d*aaca* dihñévu.
b. Oke d*aaca* tsane dihñétu.

ò-k^{h}è	t-à:k^{h}à	a. tì^{ʔ}ɲé-βʉ̀ your-thm
i-objAn	youImp-give	b. [ts^{h}à-nè Ⓐ tì^{ʔ}ɲé]-t^{h}ʉ̀ one-⟨ø⟩ your -sou

a. ‘Give me yours.’
b. ‘Give me some of yours.’

In example 565b the free possessive pronoun is appositive to ts^{h}à-nè 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 d*aaca* dihñéh*aam*ɨvu d*íwaaj*ácúh*aam*ɨvu.

ò-k^{h}è tà:k^{h}à tì^{ʔ}ɲé-ʔà:mí-βʉ̀ Ⓐ tí k$\overset{G}{\underset{N}{}}$pa:hák^{h}ʉ́-ʔà:mɨ́-βʉ̀
I-objAn 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. mʉ̀^{ʔ}ná è:-nè (¿Muhná eéne?) ‘Whose is that?’
whose that-⟨ø⟩
b. mʉ̀^{ʔ}né-ɾɛ́ è:-nè (¿Muhnéré eéne?) ‘To whom only does
whose-only that-⟨ø⟩ that belong?’
c. t^{h}à^{ʔ}ɲè è:-nè (Tahñe eéne.) ‘That is mine.’
mine that-⟨ø⟩

Chapter 9

The Genitive Construction

The genitive construction joins two nouns or noun phrases into a single noun phrase.

$$[_{NP} \quad NP_{modifier} \quad N_{head} \ ]$$

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 [ˣ] of the modifier is "launched by" the root ˣtsʰɨ̀ːmɛ̀ 'children'.[1]
2. When the possessor ends in /i/, it may palatalize the consonant of the following possessed noun. For example á:tí Ⓖ ɲàʔpɛ̀ /á:tí nàʔpɛ̀/ 'that (distant) person's brother'.

[1] When ˣtsʰɨːmɛ 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 ì 'self' becoming ɨ̀ in 568 and 569. See also 620 below.

   (568) [ɨ́ nɨ̀:ts^{h}ʉ́-kpà]-rì̲ (ɨ́nɨ̀tsúwarì) 'with his machete'
   self machete-⟨slab⟩ -oblIn

   (569) [ɨ́ ^{x}ts^{h}ɨ̀:mɛ́nɛ̀]-k^{h}ɛ̀ (ɨ́jtsɨ̀méneke) '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:

MODIFIER (POSSESSOR)		HEAD (POSSESSED)
(…σ)σ̋	·	σ(σ)#
(…σ) σ	·	σσσ(σ…)

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]

[2]We 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

MODIFIER		HEAD
((…σ)$\overset{H}{\sigma}$)$\overset{G}{\sigma}$	·	σ(σ)#
((…σ)$\overset{H}{\sigma}$) σ	·	$\overset{G}{\sigma}$σσ(σ…)

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

MODIFIER (POSS'R)	HEAD (POSS'D) σ#	σσ#	σσσ(…)
#σ	$\overset{G}{\sigma}$· σ [570]	$\overset{G}{\sigma}$· σ́ σ [573]	σ́·$\overset{G}{\sigma}$ σ́ σ(…) [576]
#σσ	σ́ $\overset{G}{\sigma}$· σ [571]	σ́ $\overset{G}{\sigma}$· σ́ σ [574]	$\overset{H}{\sigma}$ σ́·$\overset{G}{\sigma}$ σ́ σ(…) [577]
(…)σσσ	(…σ) σ́ $\overset{G}{\sigma}$· σ [572]	(…σ) σ́ $\overset{G}{\sigma}$· σ́ σ [575]	(…)σ $\overset{H}{\sigma}$ σ́·$\overset{G}{\sigma}$ σ́ σ(…) [578]

(570) t^{h}$\overset{G}{\text{a}}$ʔ hʲà (tahjya) 'my house'
my house

(571) tí-ːpʲ$\overset{G}{\varepsilon}$ hà (dííbye ja) 'his house'
that-⟨SgM⟩ house

(572) a. mɛ́ːní-m$\overset{G}{\text{ɯ}}$ hà (méénímu ja) 'pigs' house'
pig-pl house

b. kpàʔárò hà (waháro ja) 'mother's house'
mother

(573) a. t^{h}$\overset{G}{\text{a}}$ máˣʧ^{h}ò (tamájcho) 'my food'
my food

b. t^{h}$\overset{G}{\text{a}}$ mɛ́ːnì (tamééni) 'my pig'
my pig

c. $\overset{G}{\text{ɨ}}$ʔ mɨ́ː-nɛ̀ (ɨhmɨ́ne) 'his canoe'
self transport-⟨ø⟩

(574) a. tí-ːpʲ$\overset{G}{\varepsilon}$ máˣʧ^{h}ò (dííbye májcho) 'his food'
that-⟨SgM⟩ food

b. tí-ːpʲ$\overset{G}{\varepsilon}$ ɛ́ʔ-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 Ⓖ 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.

(575) mɛ́ːní-mɯ́ [G] máˣʧʰò (méénímu májcho) ‘pigs’ food’
pig-pl food

(576) a. tʰá mɛ̀ːní-mɯ̀ [G] (támeenímu) ‘my pigs’
my pigs-plAn
b. tʰá ǒːʔí-ːpʲʰɛ̀ [G] (táoohíípye) ‘my dog’
my dog-⟨SgM⟩

(577) tí-ːpʲɛ́ nɪ̀ːβɯ́kpà [G] (dííbyé niivúwa) ‘his deer’
that-⟨SgM⟩ deer

(578) a. waháró oohííbye
b. waháró meenímu
c. waháromútsí meenímu ja

a. kpàʔáró ǒːʔí-ːpʲɛ̀ [G] ‘(my) mother’s dog’
mother dog-⟨SgM⟩
b. kpàʔáró mɛ̀ːní-mɯ̀ [G] ‘(my) mother’s pigs’
mother pig-plAn
c. [kpàʔárò-mɯ́tsʰí mɛ̀ːní-mɯ̀] Ⓖ hà [G] ‘(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 -mɯ ‘plural’ and classifiers (like -Ⓛːpɛ ⟨SgM⟩) form part of the noun stem.[3] 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.

[3]This may strike us as strange since meanings like ‘plural’ and ‘singular masculine’ are usually inflectional and thus not part of the stem. Nonetheless, the rules that dock tones include these suffixes, counting syllables back from where they end.

(579) a. ní:βɯ́kpá^{x} ts^{h}^{G}í:mé-nɛ̀ (níívúwáj tsɨɨméne) ‘deer’s child’
b. t^{h}á ^{G}mɛ:ní-mʉ̀ (támeenímu) ‘my pigs’
c. á:nɯ́ ^{G}ó:ʔí-:p^{j}ɛ̀ (ááná oohííbye) ‘his dog’

Further examples follow:

(580) í ^{G}kpah^{j}á-mʉ̀ (self clothing-pl) íwajyámu ‘his clothes’
ɨ́ ^{G}nɨ:ts^{h}ɯ́-kpà (self cut-⟨slab⟩) ɨ́nɨɨtsúwa ‘his machete’
í $^{G}_{N}$ma^{x}tʃ^{h}ó-kpà (self eat-⟨slab⟩) ímajchówa ‘his scissors’
í $^{G}_{N}$ak^{h}ɯ́-:βɛ̀-kpà (self sit-sIn-⟨slab⟩) íacúúvewa ‘his seat’

(581) í ^{G}i^{x}tʃ^{h}í-ɛ̀-mɨ́ íijchíemɨ́) ‘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 ^{L}naʔpɛ̀ (nahbe) ‘brother’ bears a lexically marked low tone so Ⓖ cannot dock on the modifier’s final syllable as this would violate the *LLX constraint:

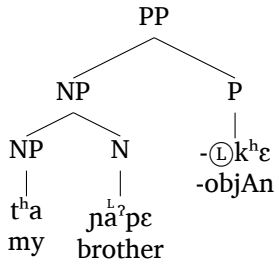
(582) a. t^{h}á Ⓖ ɲ^{L}naʔpɛ̀ (táñahbe) ‘my brother’
b. mɯ́:ʔá Ⓖ ^{L}naʔpɛ̀ (múúhá nahbe) ‘our brother’
c. kpa^{L}ʔárɔ́ Ⓖ ^{L}naʔpɛ̀ (waháró nahbe) ‘my mother’s brother’

The addition of a suffix like -Ⓛk^{h}ɛ̀ ‘objAn’ or -Ⓛmà ‘with’ may cause the first tone of ^{L}naʔpɛ̀ ‘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. t^{h}á Ⓖ ɲáʔpɛ̀-k^{h}ɛ̀ ‘my brother (object)’
my brother-objAn
b. ámɯ́ʔá Ⓖ ɲáʔpɛ̀-k^{h}ɛ̀ ‘your (pl) brothers (object)’
your brother-objAn
c. t^{h}á Ⓖ ɲáʔpɛ̀-mà ‘with my brother’
my brother-with

We take the structure of 583a to be as follows, with the noun phrase formed before the addition of the case marker.



How can we understand this? Recall that ɲa̋ʔpɛ has a lexically marked low tone. This Ⓛ blocks the genitive from docking on the possessor's final syllable. Subsequently -Ⓛkʰɛ 'objAn' delinks this Ⓛ. 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 tʰá ɲáʔpɛ̀-kʰɛ̀ is as follows:

```
ta  ñahbe
 :\  L  |    lexical
 : + |  |    G is blocked by ñahbe's L
 : G |  |
 :   =  L_ke    objAn
 :   :  :  :
 :   :  :  L   FDLT
 H   H  :  :   DHT
 :   :  :  :
tá  ñáhbe-ke
```

Figure 9.1 TD: tá ñáhbeke

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 kʰara̋kʰa 'chicken' in 584:

(584) a. tʰá Ⓖ kʰárak̋ʰà (*tácáraca*) 'my chicken'
b. mʉ́ːʔá Ⓖ kʰárak̋ʰà (*múúhá cáraca*) 'our chicken'
c. kpàʔáró Ⓖ kʰárak̋ʰà (*waháró cáraca*) '(my) mother's chicken'

The tone derivation for tʰá kʰárak̋ʰà in 584a is as follows:

```
ta  caraca
 :  /: L :    lexical
 : + : : :    G is blocked by caraca's L.
 : G : : :
 :   : : L    FDLT
 H   H : :    DHT
 :   : : :
tá  cáraca
```

Figure 9.2 TD: *tácáraca*

Or, the lexically marked tone may stop the Ⓖ from docking on the possessor. Compare 585a, where it can dock, with 585b, where it cannot:

(585) a. ní:βúkpá[G] máˣʧʰò (*níívúwa májcho*) 'deer's food'
b. kʰárákʰá[L] Ⓖ máˣʧʰò (*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 ɯ́[H]níɯ̀ '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 blocks[4] the docking of Ⓖ, which would otherwise dock on the initial syllable of ɯ́[H]níɯ̀ because it is trisyllabic:

(586) Diityé úníuháñerícya diícya.
Dì:tʲʰɛ́ Ⓖ ɯ́[H]níɯ̀ ʔáɲɛ̀-rí-kʲʰà tí[I]-:kʲʰà. 'Stay beside
they beside var-oblIn-affirm you-be them.'

The noun kʰá:nì: '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 Ⓖ in 587b, thereby explaining why Ⓖ does not dock on the possessive pronoun:

(587) a. kʰá[H]:nì: (*cáánií*) 'father' (citation form)
b. tí: Ⓖ kʲʰá[H]:nì: (*díícyáánií*) 'your (sg) father'

However, in 588a–c, Ⓖ does dock on the head's initial syllable, delinking its lexically marked high tone.

(588) a. tí:pʲɛ́ ˣkʰá[G]nì (*dííbyéj caáni*) 'his father'
b. ámúʔá ˣkʰá[G]nì (*ámúháj caáni*) 'your (pl) father'
c. tí:pʲɛ́ ˣkʰá[G]:nîì (*dííbyéj caaníi*) 'his father (past tense)'

This difference may hinge on whether kʰá:nì: 'father' is interpreted as bi- or trisyllabic: The additional syllable in the citation form (587a) may be due

[4]This "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 k^{h}á:nì: 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 mɛ:ni '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 -k^{h}^{L}opa 'augment'. In 589c it bears the low tone imposed by -Ⓛ◯h^{L}ʉ̱k^{h}o 'focus'.

(589) a. t^{h}^{G}ā mɛ́:nì̱ (tɑmééni) 'my pig'
my pig

b. t^{h}^{G}ā mɛ́:ní̱-k^{h}^{L}ópà (tɑméénícobɑ) 'my big pig'
my pig-aug

c. t^{h}^{G}ā mɛ́:nì̱-ɾɛ́-hʉ̀k^{h}ò (tɑmééniyéjuco) 'now only my pig'
my pig-only-focus

9.1.4 The possessor's penult high extension

If Ⓖ 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 Ⓖ docks on the head, as represented in figure 9.3b. We will refer to this as the possessor's penultimate high extension (PPHE).[5]

[5]The 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 Ⓖ 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.

	MODIFIER		HEAD
a.	((…σ)$\overset{H}{\sigma}$)$\overset{G}{\sigma}$	·	σ(σ)#
b.	((…σ)$\underset{H}{\sigma}$)$\overset{H}{\sigma}$	·	$\overset{G}{\sigma}$σσ(σ…)

Figure 9.3 The possessor's penultimate high extension (PPHE)

The PPHE is illustrated in example 590.

(590) díñáhbé táábake
tí ɲáʔpɛ́ tʰá:pà-kʰɛ̀ 'your brother's wife (object)'
your brother wife-objAn

Note that the first syllable of $\overset{L}{\text{n}}$aʔpɛ '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'.

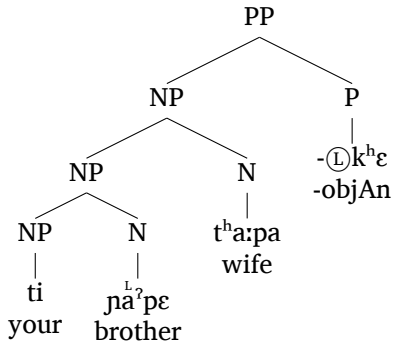


Figure 9.4 STR: díñáhbé táábake 'your brother's wife'

The tone derivation of tí ɲáʔpɛ́ tʰá:pà-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 $\overset{L}{\text{n}}$aʔpɛ 'brother' blocks it from doing so. Second, when 'your brother' is joined to 'wife', Ⓖ should dock on the final syllable of $\overset{L}{\text{n}}$aʔpɛ but its lexically marked low tone blocks this. By the PPHE the penultimate syllable of $\overset{L}{\text{n}}$aʔpɛ 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.

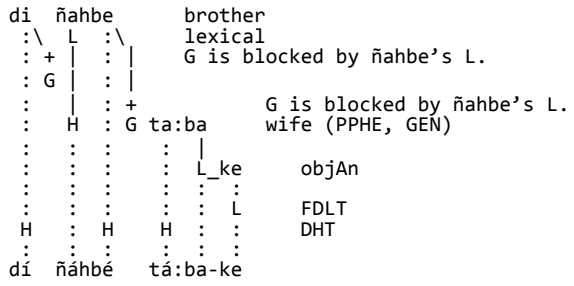


Figure 9.5 TD: díñáhbé táábake

(591) táñáhbéj tsɨɨméne

[[tʰá Ⓖ ɲá-ˀpɛ́]ˣ tsʰᴳɨ́ːméǹè] 'my brother's child'
my sib-⟨SgM⟩ child

(592) técoomí avyéjúúbé ajyúwa

[[tʰɛ́-kʰòːmíᶠ⁶ àβʲɛ́hɯ́-ːpɛ́] àhʲɯ́kpà] 'the daughter of the
that-⟨town⟩ reign-⟨SgM⟩ daughter town's chief'

9.2 The uses of 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) tʰᴳå? mɨ́ːnè (tahmɨ́ɨne) 'my canoe'
tíːpʲᴳɛ́ máˣʧʰò (dííbye májcho) 'his food'
ᴳ
tíːpʲɛ́ ᴸoːʔíːpʲè (dííbyé oohííbye) 'his dog'

(594) a. áβʲɛ́hɯ́ːpᴳɛ́ máˣʧʰò (ávyéjúúbe májcho) 'the chief's food'
b. áβʲɛ́hɯ́ːpɛ́ nᴳɨːtsʰɯ́-kpà (ávyéjúúbé nɨɨtsúwa) 'the chief's machete'

[6]The low tone of tʰɛ́-kʰòːmí 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.

KINSHIP:

The referent of the head bears a kinship (father, mother,…) or social relationship to the referent of the modifier:

(595) t^{h}á Ⓖ $\overset{L}{ɲa}^{ʔ}$pè (táñahbe) 'my brother'
tí:p^{j}é Ⓖ $\overset{L}{na}^{ʔ}$pè (dííbyé nahbe) 'his brother'
tí:$p^{j}\overset{G}{ɛ}^{x}$ ts^{h}ɨ́:mɛ̀ (dííbyej tsɨ́ɨ́me) 'his children'

PART-WHOLE:

The referent of the head is part of the referent of the modifier:

(596) $t^{h}\overset{G}{a}$ ʔó^{x}ts^{h}ɨ̀ (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) tí:p^{j}é $\overset{G}{\underset{N}{ɯ}}$kpá:pò (dííbyé uwáábo) 'his teaching'
tí:p^{j}é Ⓖ kpák$^{h}\overset{N}{i}$m^{j}éì (dííbyé wákimyéi) 'his work'

Example 598 does not mean 'their' in the sense of ownership, but that 'they' are participants:[7]

(598) diityé pihcyáávejɑ

tì:-t^{jh}é $p^{h}\overset{G}{\underset{N}{i}}ʔk^{jh}$á-:βè-hà
that-⟨AnPl⟩ gather-sIn-⟨shelter⟩
'the house where they gather (lit. their gathering house)'

(599) táwɑjyújte

t^{h}á $\overset{G}{\underset{N}{kp}}ah^{j}$ɯ́-$^{x}t^{h}$è 'the ones I love (lit. my loved ones)'
my love-⟨AnPl⟩

[7]The initial syllable of p^{h}ì$^{ʔ}k^{jh}$á-:βè 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 tì:-t^{jh}é is docked by -Ⓛt^{h}e ⟨AnPl⟩.

(600) Taabóóbej téévеri tsúúca bohɬjúcoóbe.

[tʰà:pó-:pɛ̀ᴳ xtʰé:βè]-rì tsʰúː kʰà pòʔɬ-húkʰò-:pè
cure-⟨SgM⟩ influence-oblIn 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-:tʲʰé ᴳᴺɯkpá:pò]-:pè kpà:hákʰú-ʔ pʰá-nè-:ɾè
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: áàtʃʰì 'outside', à:ʔì 'home', pà 'below', kʰà:mɛ̀ 'above', tɛ́hɯ̀ 'behind', ɛ̀ʔní:ɲè 'beyond', ɛ́tʃɛ̀ 'yonder', ʔaᴸtʃɯ̀ 'top', ɨᴸʔtɛ̀ 'before', tʃᴸi:ɲè 'underneath', nɨ́ˣkʰàɯ̀ 'end' pʰaᴸɲè 'inside', pʰɨ:ʔɨ 'near', pʰɨ́:nɛ̀ 'middle', ʔᴴɯmì: 'in front of', ᴴɯnìɯ̀ 'beside'. Note that several of these have lexically marked tones.

For example, ʔaᴸtʃɯ indicates being on top of the referent of the modifier, as in 602 and 603:

(602) tí:pʲé Ⓖ ʔaᴸtʃɯ̀ (dííbyé hallu) 'on top of him'

(603) Oke daacu éhwá hallúewávu.

ò-kʰɛ̀ t-à:kʰɯ̀ [ɛ́ʔ-kpá Ⓖ ʔaᴸtʃú-è]-kpá-βɯ̀
I-objAn youImp-give that-⟨slab⟩ above-per -⟨slab⟩-goal
'Give me the plank that is on top (of the other plank).'

Generally ɛtʃɛ (élle) '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 tí-:pʲɛ̀ that-⟨SgM⟩:

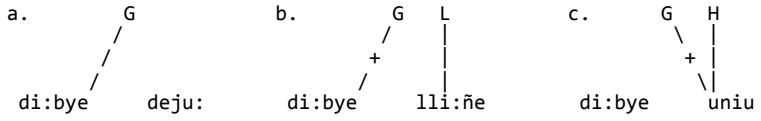
(604) O péé dííbye éllevu.

ò pʰé:-ʔ [tí-:pʲᴳɛ̀ étʃɛ̀]-βɯ̀
I go-⟨t⟩ that-⟨SgM⟩ yonder -goal
'I go to where he is (lit. to his yonder).'

In considering the examples of 605, note that tɛ́hʉ̀ː ‘under’ has no lexically marked tone, ʧ^{L}ɪːɲɛ̀ ‘underneath’ has a lexically marked low tone, and ʉ̃^{H}niɯ ‘beside’ has a lexically marked high tone.

(605) a. tíːpʲɛ̀ tɛ́hʉ̀ (dííbye déjuú) ‘behind him’
b. tíːpʲɛ́ ʧ^{L}ɪːɲɛ̀ (dííbyé lliiñe) ‘beneath him’
c. tíːpʲɛ́ ʉ̃^{H}nìʉ̀ (dííbyé úniu) ‘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 trisyllablic 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:



Further examples follow.

(606) tʰá Ⓖ ʉ̃^{H}níʉ̀-ɾì (táúníuri) ‘at my side’
tíːpʲɛ́ Ⓖ ʉ̃^{H}níʉ̀-ɾì (dííbyé úníuri) ‘at his side’

(607) Táoohíbyé imíllé táúníuri icyúwane.

tʰá ó$^{G}_{L}$ːʔí-pʲɛ́ ìmíʧɛ́-ˀ [tʰá Ⓖ ʉ̃^{H}níʉ̀-ɾì ì kʲʰúkɒ̀]-nɛ̀
my dog-⟨SgM⟩ want-⟨t⟩ my side-oblIn self sleep -⟨ø⟩
‘My dog wants to sleep by my side.’

The locational noun pʰa^{L}ɲɛ (pañe) ‘inside’ has a lexically marked low tone on its first syllable so Ⓖ may not dock on the modifier’s final syllable; see examples 608 and 609:

(608) há Ⓖ pʰa^{L}ɲɛ̀ (já pañe) ‘inside the house’

(609) Téehí pañe ó ájtumɨ́ amóóbeke.

tʰɛ́ːʔí Ⓖ pʰa^{L}ɲɛ̀ ó áˣtʰʉ̀mɨ́-ˀ àmó-ːpɛ̀-kʰɛ̀
river inside I saw-⟨t⟩ fish-⟨SgM⟩-objAn
‘I saw a fish in the river.’

The relationship indicated by the locational noun need not be interpreted strictly as a physical relationship. For example, in 610 ɛ̀ˀníːɲɛ̀

'beyond' follows the standard of comparison to indicate that someone's stength is "beyond" that of the referent of the modifier:

(610) Dííbyé ehnííñe tsɨjpaábe.

tí-:pʲé	ɛ̀ʔníː˩nɛ̀	tsʰɨˣpʰà-:pɛ̀
that-⟨SgM⟩	beyond	be.strong-⟨SgM⟩

'He is stronger 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) tí:pʲé Ⓖ pónɛ̀ (dííbyé boóne) 'after him'
tí:pʲé Ⓖ pó:né:pɛ̀ (dííbyé boonéébe) 'the one after him'

(612) tí-:pʲé Ⓖ ɨ̀ʔtɛ̀ (dííbyé ɨhde) 'before him'
that-⟨SgM⟩ before

Note that both pó:nɛ 'after' and ɨ̀ʔtɛ '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) tsʰá-ˣkʰòòhɨ́ kpákʰìmɛ́ì (tsájcoojɨ́ 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	ímì	(taími)	'my goodness'
tʰá	ʔáˣʧʰótʰà	(táhajchóta)	'my height'
tí:pʲé	ʔáˣʧʰótʰà	(dííbyé hajchóta)	'his size'
tí:pʲɛ́	tsʰɨˣpʰà	(dííbye tsɨjpa)	'his strength'
tí:pʲɛ́	ʧʰémɛ̀	(dííbye chéme)	'his sickness'

DESCRIPTION:

The modifier may describe the head's referent, as in 615 and 616.

(615) pʰàˣtʲʰétʰé kpaɲéʔhɨ̀ (pajtyété wañéhjɨ) 'salvation feast (Easter)'
save feast

(616) mé:nʉ̀-ˣkʰátsʰí múnàà (méénujcátsi múna) 'soldiers'
beat-recip people

SPHERE OF EXISTENCE:

The modifier indicates the place in which the head's referent resides.

(617) [[tʰá ɪ̀:ɲúɨ-hɨ̀] mɯ́nàà] (tá*i*iñújɨ́ mú*n*a*a*) 'my country's people'
my dirt-⟨disk⟩ people

(618) tʰé-kʰò:mí ǎβʲɛ́hɯ̰̀-:pè (técoomí *a*vyéjuúbe) '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) íñehníñéhjɨ́
í ɲɛ̀ʔní-ɲé-ʔhì '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 ɨ́tsɨtsɨ́ɨne...
mɛ́ nìˣtʲʰúɨ-ʔ tʰɛ̀:-nɛ̀ Ⓐ í tsʰɨ̀tsʰɨ́:-nɛ̀
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) C*á*á*n*i mémeri teene újcuúbe.
[kʰá:nɪ̀ mɛ́mɛ̀]-rì tʰɛ̀:-nɛ̀ úɨˣkʰùɨ-:pè
father name -oblIn that-⟨ø⟩ receive-⟨SgM⟩
'He received it in his father's name.'

(622) Dííbye méme J*óáa*á.
[tí-:pʲɛ̀ mɛ́mɛ̀] hóáàá 'His name is John.'
that-⟨SgM⟩ name John

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 tsɬɬmávátuné hajchóta

[tì-ʧɛ̀ tsʰɪ́ːmá-βá-tʰɯ̀ː-nɛ́][8] ʔa̍ˣʧʰótʰà
that-⟨SgF⟩ children-have-neg-⟨n⟩ length.of.time
'during the time she had not given birth'

(624) wájpiike úújétúné badsɬjcaja

[kpáˣpʰìː-kʰɛ̀ ɯ́ːhɛ́-tʰɯ́ː-nɛ́] pa̍tsɬˣkʰà-hà
man-objAn arrive-neg-⟨n⟩ adolescentF-sg
'young woman who has not been with a man'

[8] tsʰɪːma- 'children' is tsʰɪːmɛ- 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), -kʰɛ ∼ ø (with animate and inanimate phrases, respectively) 'direct object' (10.2), -βɯ 'goal' or 'theme' (10.3), -tʰɯ 'source' (10.4), -ɾi 'inanimate obliques' (10.5), -ma 'with' (10.6), and -ʧìːʔɛ̀ 'motive' (10.7). In addition to these, there are two "pseudo-cases": -ʔtɯ̀ 'comparative' (10.8) and -ˣ '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.

a. ò-kʰɛ̀		ìʔhʲɯ́ɾ-nɯ̀ː-pɛ̀
I-objAn		mouth-do-⟨SgM⟩
b. ó-ʔtì-(tʰɯ̀)	}	
I-anim-sou		
c. óː-mà		
I-with		ìʔhʲɯ́ɾ-βà-ːpɛ̀
d. tʰá ⓖ ʔᴸátʃɯ́ɾ-ɾí		mouth-have-⟨SgM⟩
my top-oblIn	}	

‘He talks $\begin{cases} \text{a. to (at) me.'} & \text{(object)} \\ \text{b. about me.'} & \text{(source)} \\ \text{c. with me.'} & \text{(co-subject)} \\ \text{d. in my favor.'} & \text{(inanimate oblique)} \end{cases}$

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:

(626) a. $(\text{NP}_{\text{subject}})$ $[_{\text{predicate}}$ …verb-$\left\{ \begin{matrix} \langle \text{t} \rangle \\ \langle \text{n} \rangle \end{matrix} \right\}]$

b. $[_{\text{predicate}}$ …verb]-classifier$_{\text{subject}}$ (Ⓐ $\text{NP}_{\text{subject}}$)

c. *$\text{NP}_{\text{subject}}$ $[_{\text{predicate}}$ …verb]-[classifier$_{\text{subject}}$]

d. $[_{\text{predicate complement}} \left\{ \begin{matrix} \text{NP} \\ \text{AP} \end{matrix} \right\}]$ $\text{NP}_{\text{subject}}$ ($\text{V}_{\text{copular}}$)

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 -Ⓛ◯ʔi ⟨t⟩ or, when negative, by -Ⓛ◯nɛ ⟨n⟩ as in 837, page 326. This order is the one most commonly used to introduce a referent into the discourse.

(627) Ávyéjuube llííñájatéhi.
áβʲéhɯ̀-ːpɛ̀ ʧíːɲáhà-tʰɛ́-ʔì ‘A/The chief went to hunt.’
reign-⟨SgM⟩ hunt-go.do-⟨t⟩

(628) Mítyane mɬamúnaa tsááhi.
mítʲʰà-nɛ̀ mɬ̀ámɯ́nàà tsʰáː-ʔì ‘Many people come.’
many-⟨ø⟩ people come-⟨t⟩

In 629 the subject is a relative clause headed by the classifier -Ⓛːpɛ ⟨SgM⟩:

(629) Llííñájaatéébé mujtáhi.
$[_{\text{NP}}$ ø$_i$ ʧíːɲáhàː-tʰɛ́]-ːpɛ́$_i$ mɯ̀ˣtʰá-ʔì
hunt-go.do -⟨SgM⟩ be.lost-⟨t⟩
‘The one who went to hunt got lost.’

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 -Ⓛ:pɛ (-:be) ⟨SgM⟩:[1]

(630) ʧíːɲáhàː-tʰé-épɛ̀ (Llííñájaatéébe.) 'He went to hunt.'
hunt-go.do-⟨SgM⟩

A classifier subject may be followed by an appositive subject noun phrase, as in 631:

(631) "Juúju" neebéváa íllií.
"hùːhùː" nɛ̀-ːpé-βa-a Ⓐ íʧìí '"OK," said his son.
OK say-⟨SgM⟩-rpt-rem 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:

(632) nɛ́ʔníʔ hùːβà (...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, tìːpʲɛ̀ tìpʲɛ̀, as in 633:

(633) Tsá dibye pééityú.
tsʰaʔ tì-pʲɛ̀ pʰéːì-tʲʰɯ́ 'He does not go.'
not that-⟨SgM⟩ go-fut-neg

This also applies in subordinate clauses, as in 634. (See also 864, page 332.)

(634) Dille téhullévú péhajchíí ó imíllé dííllema o pééneé.
[tì-ʧɛ̀ tʰé-ʔɯ̀ʧé-βɯ́ pʰé-ʔàˣʧʰíː]
that-⟨SgF⟩ that-⟨place⟩-goal go-if

ó ìmíʧé-ʔ [tíː-ʧɛ̀-mà ò pʰéː-nɛ̀ɛ́]
I want-⟨t⟩ that-⟨SgF⟩-with I go-⟨n⟩
'If she goes over there, I want to go with her.'

[1]The tone of -Ⓛ:pɛ̀ ⟨SgM⟩ is blocked by the low imposed by -Ⓛtʰɛ '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 -ʔì ⟨t⟩ or -nɛ ⟨n⟩ 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) A*anéváa* diibye bɨɨrúmuɟɨ úújetétsó w*a*ñéhjɨvu...

à:-nɛ́-βa-a	tì:-pʲɛ̀	Ⓐ	pɨ:ɾɯ́mɯ̀-hɨ̀
thm-⟨ø⟩-rpt-rem	that-⟨SgM⟩		agouti-sg

ɯ́:hɛ̀-tʰɛ́-tsʰó-ʔ	kpàɲɛ́ʔhɨ̀-βɯ̀
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 tʰá: kʰá:nì: '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 t*áácáá*ni cheméhi.

b. Dibye chemé t*áácáá*nii.

a. tì-:pʲɛ̀	Ⓐ	tʰá:	Ⓖ	kʰá:nì	ʧʰɛ̀mɛ́-ʔì
that-⟨SgM⟩		my		father	be.ill-⟨t⟩

'He, my father, is sick.'

b. tì-pʲɛ̀	ʧʰɛ̀mɛ́-ʔ	tʰá:	Ⓖ	kʰá:nì:	
that-⟨SgM⟩	be.ill-⟨t⟩	my		father	

'He is sick, my father.'

We now consider the personal pronominal clitics in table 10.1.[5]

Table 10.1 Personal pronominal subject proclitics

o	(o)	'I'
ɯ	(u)	'you'
ti	(di-)	'you (imperative)'
mɛ	(me-)	'SAP'
i[6]	(i-)	'self'

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.

[4]Compare 636b, which has a preverbal subject, with 645, in which the subject follows the verb.

[5]Note the similarity to the bound possessive pronouns of table 8.11, page 247.

[6]Strictly speaking, this is an anaphor, not a pronoun; see section 8.3.

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 ì '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(ì) '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', ɯ 'you', or mɛ '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-ì ò pʰé-hʊ̀ʊ̀kʰó:-ʔì (Ói o péjucóóhi.) 'I am now about to go.'
I-PT I go-now-⟨t⟩

In 638 ɯ 'you' is doubled:

(638) ɯ̀ɯ̀:-βà ɯ́ pʰɛ̀-é-ʔì (Uuva ú peéhi.) 'They say that you will go.'
you-rpt you go-fut-⟨t⟩

In 639 mɛ 'SAP' is doubled; the second cliticizes to the verb:

(639) Metsu meere mepéékií.
mɛ̀tsʰʊ̀ɯ̀ mɛ̀-:ɾɛ̀ mɛ̀ pʰé:-kʰì: 'Let's go alone.'
let.us SAP-only SAP go-pur

When mɛ 'SAP' is the subject, it can be preceded by mʊ̀ʊ̀ʔà 'we (ex.)', mʊ̀ʊ̀ʔtsʰì 'we (DuM)', or mʊ̀ʊ̀ʔpʰɨ̀ 'we (DuF)'. A word may intervene between the free pronoun and the pronominal clitic, for example, tí:pʲɛ̀kʰɛ̀ in 640:

(640) Muha dííbyeke méájtyumɨ́hi.
mʊ̀ʊ̀ʔà tí-:pʲɛ̀-kʰɛ̀ mɛ́ áˣtʲʰʊ̀mí-ʔì 'We saw him.'
we that-⟨SgM⟩-objAn SAP see-⟨t⟩

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 íjcyároobe ó cheméhi.
[ò íˣkʲʰá-ɾò]-:pɛ̀ Ⓐ ó tʃʰɛ̀mɛ́-ʔì
I be-frs -⟨SgM⟩ I be.ill-⟨t⟩
'Even I am sick.' (lit. 'Even being me, I was sick.')

(642) Cóómíyi o íjcyaabe ó ájtyumɨ́ dííbyeke.
[$_{NP}$[$_{S}$kʰó:mí-jì ò íˣkʲʰà]-:pɛ̀] Ⓐ ó áˣtʲʰʊ̀mɨ́-ˀ
town-oblIn I be -⟨SgM⟩ I see-⟨t⟩

tí-ːpʲè-kʰè
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 ɬɬcúi o péjucóóhi.
ó-ì ɬːkʰʊ́ì ò pʰé-hʊ̀ʊkʰóː-ʔì 'I'm now about to go quickly.'
I-PT quickly I go-now-⟨t⟩

(644) Cóómíyi o íjcyaabe tsíhullétú dííbyeke ó ájtyumɬhi.
[NP kʰóːmí-jì ò íˣkʲʰà]-ːpè]
town-oblIn I be -⟨SgM⟩

tsʰí-ʔʊ̀tʃé-tʰʊ́ tí-ːpʲè-kʰè ó áˣtʲʰʊ̀mí-ʔì
other-⟨yonder⟩-sou that-⟨SgM⟩-objAn I see-⟨t⟩
'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 -ːpɛ ⟨SgM⟩. Compare this with 636a and b, in which the noun phrase is appositive to a free pronoun.

(645) Chémeebe táácáánii.
tʃʰémɛ̀-ːpè Ⓐ [tʰá:ː Ⓖ kʰá:nì:ː] 'He, my father, is sick.'
be.ill-⟨SgM⟩ my father

The appositional phrase may be a relative clause. For example, in 646 tʰá ɲàʔpè 'my brother' is followed by tʃʰémɛ́ròːpè 'the one who is sick':

(646) Táñahbe chéméroobe wákímyeítyéjucóóhi.
[tʰá Ⓖ ɲa̱-ʔpè] Ⓐ [tʃʰémɛ́-rò]-ːpè
my sib-⟨SgM⟩ be.ill-frs -⟨SgM⟩

kpákʰímʲèí-tʲʰé-hʊ̀ʊkʰóː-ʔì
work-go.do-now-⟨t⟩
'My brother, sick though he be, has now gone to work.'

In 647 the noun phrase tsʰíːɲɛ́ ìːɲʊ́hì mʊ́náàˣpʰì 'a person from a foreign country' is appositive to á:nʊ̀ 'this (SgM)':

(647) Áánu tsííñé iiñújɨ múnáajpi cheméhi.

á:nɯ̀ Ⓐ [NP [NP ts^{h}í:ɲɛ́ ^{G}ɪ:ɲú-hɨ̀] Ⓖ ^{H}mɯ́náà-^{x}p^{h}ì] ʧ^{h}èmɛ́-ʔì
this.SgM another dirt-⟨disk⟩ human-⟨SgM⟩ be.ill-⟨t⟩
'This one, a man from another country, is sick.'

10.2 -ke ∼ -ø 'object'

Inanimate direct objects are unmarked. Animate direct objects are marked by -Ⓛk$^{h(j)}$ɛ (-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 -Ⓛk^{h}ɛ 'objAn':

(648) ò-k^{h}è ɨ́:t^{h}è-:pè (Oke ɨ́ɨteébe.) 'He looks at me.'
I-objAn look-⟨SgM⟩

In 649 the direct object is ɯ́mɛ̀ʔɛ̀ 'tree'; since it is inanimate it does not bear case marking:

(649) ɯ́mɛ̀-ʔɛ̀ ɨ́:t^{h}è-:pè (Úmehe ɨ́ɨteébe) 'He looks at the tree.'
tree-⟨tree⟩ look-⟨SgM⟩

In 650 the direct object is (when present) ò-k^{h}è (I-objAn), followed by the appositive relative clause ò t^{h}á:pè '(the one) that was crying':

(650) Oke o tɑ́ɑ́beke ɨ́ɨteébe.
ò-k^{h}è Ⓐ [NP [S ò t^{h}á]-:pè]-k^{h}è ɨ́:t^{h}è-:pè
I-objAn I cry -⟨SgM⟩ -objAn look-⟨SgM⟩
'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) a. Dííbyeke ɨ́dɑ́ɑ́tsólleébe.
b. Dííbyedi(tu) ɨ́dɑ́ɑ́tsóveébe

a. tí-:p^{j}è-k^{h}è ɨ́tá:ts^{h}ó-ʧè-:pè
that-⟨SgM⟩-objAn pity-sTr-⟨SgM⟩
b. tí-:p^{j}è-tì-(t^{h}ɯ̀) ɨ́tá:ts^{h}ó-βè-:pè
that-⟨SgM⟩-anim-sou pity-sIn-⟨SgM⟩

[7]Recall 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 ìmítʃé-ʔ [ò máˣtʃʰò]-nɛ̀ (Ó imíllé o májchone.) 'I want
I want-⟨t⟩ I eat -⟨ø⟩ to eat.'

(653) Ó ájtyumɨ́ u ɑ́ɑ́kityéne.
ó áˣtʲʰùmɨ́-ʔ [ù á:kʰìtʲʰé]-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 -Ⓛkʰɛ (-ke) 'objAn'. Since the adressee 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 -Ⓛ◯ʔi ⟨t⟩ that normally follows when there is a preverbal subject.

(654) a. Tsúúca ó májchone.
b. Tsúúca ó ímíbájchoja.
a. tsʰúːkʰà ó máˣtʃʰò-nɛ̀ 'I have already eaten it.'
already I eat-⟨ø⟩
b. tsʰúːkʰà ó ímípáˣtʃʰò-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:

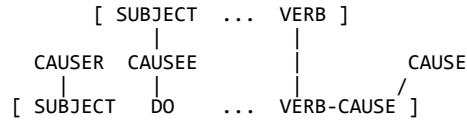


Figure 10.1 Grammatical relations: causatives

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. Ó dsɨɨnéhi.
b. Oohííbyé oke dsɨɨnetsóhi.

a.	SUBJECT	VERB	
	ó	tsɨ̀ːné-ʔì	'I ran.'
	I	run-⟨t⟩	
b.	CAUSER	CAUSEE	VERB + CAUSE
	òːʔí-ːpʲé	ò-kʰɛ̀	tsɨ́ːnɛ̀-tsʰó-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 -βʉ̀ (-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).

When -βɯ follow an animate phrase, that phrase must first bear -$^{(ʔ)}$ti ‘animate’, as in 656:

(656) Ó úújeté dííbyedívu.
ó ɯ́ːhɛ̀-tʰɛ́-ʔ tí-ːpʲɛ̀-tí-βɯ̀ ‘I caught
I arrive-go.do-⟨t⟩ that-⟨SgM⟩-anim-goal up to him.’

The glottal stop of -$^{(ʔ)}$ti ‘animate’ occurs only after the monomoraic morphemes o, ɯ, and mɛ; 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) ò pʰɛ́ː-ʔ tʰɛ́-ʔɯ̀ɪʃɛ́-βɯ̀ (O péé téhullévu.) ‘I go over there.’
I go-⟨t⟩ that-⟨yonder⟩-goal

(658) Táñaalle ácuuvé ácúúveíhcyú hallúvu.
tʰá Ⓖ ɲa̋ː-ʧɛ̀ ákʰɯ̀-ːβé-ʔ [ákʰɯ́-ːβè-íʔkʲʰɯ́ Ⓖ ʔa̋ʧɯ́]-βɯ̀
my sib-⟨SgF⟩ sit-sIn-⟨t⟩ sit-sIn-⟨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 cáts↓pááve.
mɯ̋ɯ̀ ó-ʔtì-βɯ̀ kʰátsʰ↓pʰá-ːβè ‘You should trust in me.’
SAP.sg I-anim-goal dependImp-sIn

Ordinarily -β$^{(j)}$ɯ ‘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) tí-ːpʲɛ̀ ɛ́ʧɛ̀-βɯ̀ (dííbye 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 aˣkʰɯ ‘give’ (and perhaps a few other verbs). The other is with causatives. We will gloss these two uses ‘theme’.

Verbs like 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.

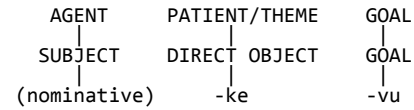


Figure 10.2 Grammatical relations: verbs like pícyo 'put'

(661) Ááwavúváa pícyoíñuube téniihyo méwánííhyo]ke...

á:-kpà-βúɪ-βa̋-a̖ pʰíkʲʰò-íɲùɪ-:pɛ̀
thm-⟨slab⟩-goal-rpt-rem put-do.go-⟨SgM⟩

[tʰɛ́-nì:ʔʲò Ⓐ mɛ́kpá-ní:ʔʲò]-kʰɛ̀
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 -βùɪ. For example, in 662, the hands are the things that are moved, and are marked with -βùɪ 'theme'; the structure of 662 is given in figure 10.3.

(662) ...tsaalle ímujpáñéécú íhyójtsɨvu iwátájcónema.

tsʰà:-ʧɛ̀ [í mɯ̋ˣpʰáɲɛ́-:kʰɯ́ í Ⓖ ʔʲőˣtsʰì-βùɪ
come-⟨SgF⟩ self breast-dual self hand-thm

ì kpa̍tʰá-ˣkʰó]-nɛ̀-mà
self cover-mTr -⟨event⟩-with
'Therefore she came covering her breasts with her hands.'

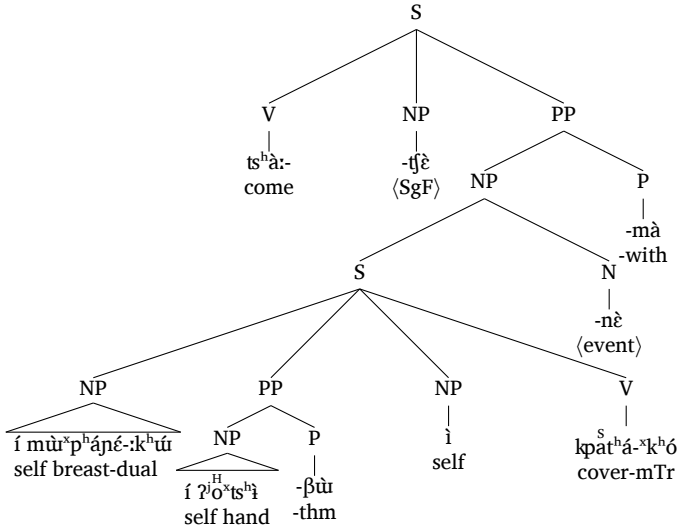


Figure 10.3 STR: tsaalle ímujpáñéécú íhyójtsɨvu iwátájcónema

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, ʔʲᴴoˣtsʰɨ̀ 'hand' would be regarded as an adjunct that bears -βùɯ (-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 -βùɯ (-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.

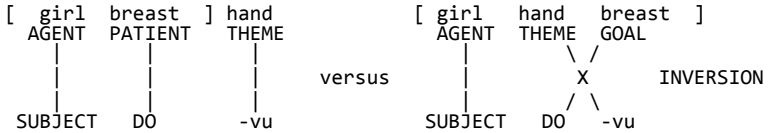


Figure 10.4 Inversion with watájco 'cover'

We withhold judgement on this case. However, there is a case where an inversion analysis is motivated for Bora.[8] The verb àˣkʰùɯ (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 -βùɯ (-vu) 'goal/theme'; this is represented in figure 10.5:

[8]This inversion is similar to a phenomena described for Seri by Marlett (1993).

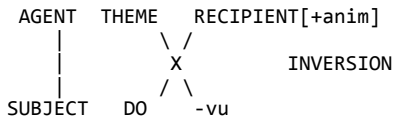


Figure 10.5 Animacy-motivated inversion

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 -βù 'goal/theme':

(663) Tsɨɨju ɨ́jtsɨɨméneke ajcú majchóvu.

	RECIPIENT		THEME
tsʰɨ̀ːhù	ɨ́	ˣtsʰɨ́ːménè-kʰɛ̀	àˣkʰúː-ʔì	màˣʧʰó-βù
mother	self	child-objAn	give-⟨t⟩	food-thm

'The mother gave food to her baby.'

Further examples follow:

(664) Íllíkyeváa ájcuube íañújuvu.

RECIPIENT			THEME	
ítʃí-kʲʰɛ̀-βa-a		áˣkʰùːpɛ̀	[í	ajnúː-hù]-βù
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	áˣkʰùːpɛ̀	kʰáɾàkʰá-tí-βù	'He gave me
I-objAn	give-⟨SgM⟩	chicken-anim-thm	a chicken.'

The theme may be left implicit, as in 666:

(666) ò-kʰɛ̀ t-àːkʰù (¡Oke daácu!) 'Give (it) to me!'
I-objAn youImp-give

Significantly, with aˣkʰɯ '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 -βù 'goal/theme'. For aˣkʰɯ 'give', this inversion is obligatory.

Are there other verbs that behave this way? Above, in connection with example 662, we mentioned this possibility for kpàtʰáˣkʰò '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 pʰìkʲʰò ‘put’ can undergo inversion:

(667) Ané(h), wa(h) pícyaméí dípamɨjɨwuúnevuj.

ànéˀ, kpàˀ pʰíkʲʰà-méí tí pʰᴳå-mí-hí-kpᵂɯ́ú-nè-βù̱ɯ̱-ˣ
then sis putImp-ɾ/p 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:

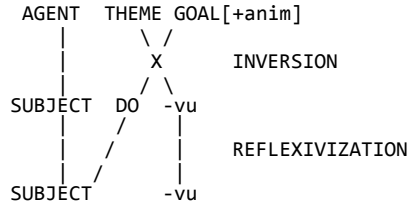


Figure 10.6 Grammatical relations: ‘Put on all your little jewels.’

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 ɯˣkʰo 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) Tsɨɨmeke tsɨɨju tsucójaanévú ujcó tsúcó teene néénélliíhye.

tsʰɨ́ːmè-k̲ʰɛ̀ tsʰɨ̀ːhɯ̀ tsʰɯ̀kʰó-hàː-né-βɯ́ ɯ̀ˣkʰó-ˀ
children-objAn mother cold-⟨shelter⟩-pl-goal insert-⟨t⟩

[tsʰɯ́kʰó⁽ˀ⁾ tʰɛ̀ː-nè né:]-né-ʧìːʔʲɛ̀
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:

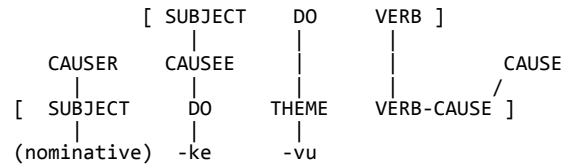


Figure 10.7 Grammatical relations: causatives of transitive verbs

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 cáracádívu.

a. SUBJECT		DIRECT OBJECT
ó	tsʰàˣtʲʰé-ʔ	kʰáràkʰá-kʰè
I	take-⟨t⟩	chicken-objAn

b. CAUSEE		THEME
ò-kʰè	tsʰàˣtʲʰé-tsʰò-ːpè	kʰáràkʰá-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) Cána bo oke duhyétsó díhjya náávevu.

kʰánà(ʔ) pò(ʔ) ò-kʰè t-ɯ̀ʔʲé-tsʰó

suggest urge I-objAn youImp-see-caus

[[tíʔ Ⓖ hʲᴳá] náːβè]-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:

SUBJECT ≻ DIRECT OBJECT ≻ OBLIQUE OBJECT ≻ 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.
ĩ ɲɛ́ʔnì mɛ̀-kʰɛ̀ ɯ́ɯ́ːhɛ́-tsʰò-ːpɛ̀
self bad SAP-objAn see-cause-⟨SgM⟩
'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 -(ʔ)ti 'animate', as in 672:

(672) Íñáálledítyú tsaábe.
í Ⓖ ɲáːːtʃɛ̀-tí-tʲʰɯ́ɯ́ tsʰà-ːpɛ̀ 'He came
self sib-⟨SgF⟩-anim-sou come-⟨SgM⟩ from his sister.'

The glottal stop of -(ʔ)tì 'animate' occurs only after the mono-moraic morphemes o 'I', ɯ 'you', and mɛ 'SAP'. See example 673:

(673) Óhdi(tyu) ihjyúvalle.
ó-ʔtì-(tʲʰɯ̀) ìʔhʲɯ́βà-tʃɛ̀ 'She talks about me.'
I-anim-sou talk-⟨SgF⟩

After -(ʔ)ti 'animate', -tʰɯ 'source' is often left implicit. For example, it need not be explicit in 674. (See also examples 673 and 682.)

(674) Dííbyedi(tyu) ɬdáátsóveébe.
tí-ːpʲè-tɨ̀-(tʲʰɯ̀ɯ̀) ɬtáːtsʰóβè-ːpè 'He has compassion for him.'
that-⟨SgM⟩-anim-sou pity-⟨SgM⟩

After -tsʰiˀ ⟨place⟩, -tʰ⁽ʲ⁾ɯ 'source' is not aspirated; it becomes -ˀtʲɯ, as in 675:

(675) Tétsihdyu tsaábe.
tʰé-tsʰì-ˀtʲɯ̀ɯ tsʰà-ːpè '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 -tʰɯ 'source'. Examples follow:

(676) ò tsʰáːˀ tʰé-ʔɯ̀ʧé-tʰɯ̀ɯ (O tsáá téhullétu.) 'I come from
I come-⟨t⟩ that-⟨yonder⟩-sou yonder.'

(677) Ávyéjuube tsáá ihjyátu.
áβʲéhɯ̀ː-pè tsʰáːˀ Gˀ hʲá-tʰɯ̀ɯ 'The chief comes
reign-⟨SgM⟩ come-⟨t⟩ self house-sou from his house.'

(678) Óómille ihjyátu.
óːmì-ʧè Gˀ hʲá-tʰɯ̀ɯ '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) ijyácunúúbe.
ó-ˀtì-(tʲʰɯ̀ɯ) ìhʲá-kʰɯ̀nɯ́ɯ-ːpè 'He is depending on me.'
I-anim-sou depend-mSt-⟨SgM⟩

Further, 680 speaks of the source of knowledge:

(680) ...íñe táñuubúmuba llíjcyanúnetúré ú waajácuú...
…[í-ɲè Ⓐ tʰá ɲGɯ̀ːpɯ́mɯ̀ɯ-pà
this-⟨ø⟩ my medicinal.plant-sg

ʧíˣkʲʰà-nɯ́]-nè-tʰɯ́ɯ-ɾé ɯ́ kpàːhákʰɯ̀-ɯ́ɯ-ˀ…
yellow-become -⟨ø⟩-sou-only you know-fut-⟨t⟩
'…you will know from the yellowing of my medicine plant…'

In 681 the source is human; note the use of the genitive construction headed by ʔa̋tʃɯ ‘top’:[9]

(681) Áádí hallútú meke uhbáme.
[á:tí Ⓖ ʔa̋tʃɯ́]-tʰɯ́ mɛ̀-kʰɛ̀ ɯ̀ʔpá-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.
[NP[[[NPò tʃʰémɛ́]-ːpɛ̀]-tì-__ kóːkʰó]-ːpɛ̀]-kʰɛ̀
I sick -⟨SgM⟩ -anim laugh -⟨SgM⟩ -objAn

ɯ́ʔpà-ːpɛ̀
upbraid-⟨SgM⟩
‘He upbraided the one who laughed at me because/when I was sick.’

[9]The example that follows is like 681 in using the genitive construction to explicate the relationship (here “reason”) but does not use -tʰù ‘source’:

Tééjá wáábyuta tsíbaábe.

[tʰɛ́ː-há Ⓖ kpáːpʲɯ̋tʰà tsʰípà-ːpɛ̀ ‘He brought it for
that-⟨shelter⟩ benefit bring-⟨SgM⟩ the house’s benefit.’

The second syllable of kpáːpʲùtʰà has a lexically marked low tone so the preceding syllable does not have the expected genitive low tone.

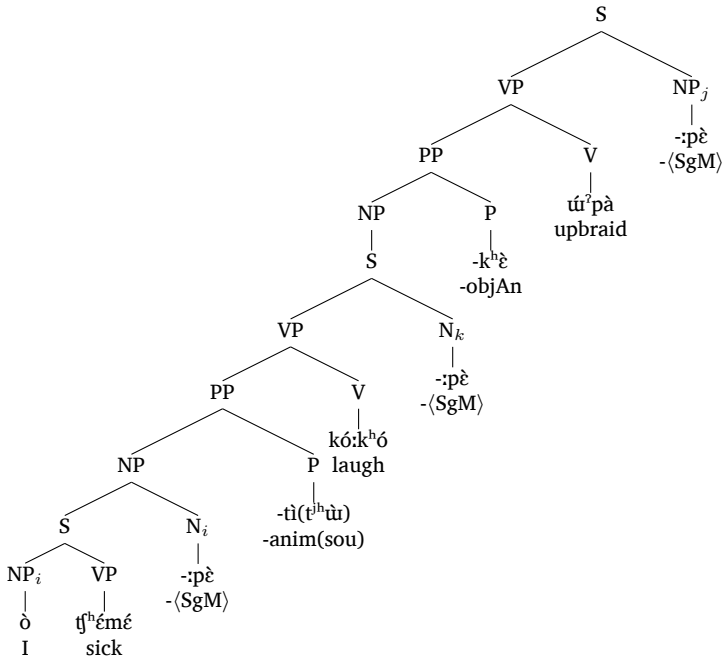


Figure 10.8 STR: O chéméébedi góócóóbeke úhbaábe.

(This is structurally like the mirror image of 'He$_j$ upbraided [$_{NP}$ the one who$_k$ [$_S$ ø$_k$ laughed at [$_{NP}$ me who$_i$ [$_S$ ø$_i$ was sick]]]].')

10.4.3 Partitive

The suffix -t^{h}ù '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, -t^{h}ù 'source' follows anomɛ 'fish', which indicates the collection from which one member should be taken:

(683) Ámómedítyú tsáápidívú oke daácu.
ámómɛ̀-tí-t̲^{jh}ú̲ ts^{h}á-:p^{h}ì-tí-βú̲ ò-k^{h}ɛ̀ t-à:k^{h}ù
fish-anim-sou one-⟨SgM⟩-anim-thm I-objAn youImp-give
'Give me one of the fish.'

(684) Tsáápidívú oke daacu diityédítyu.
ts^{h}á:-p^{h}ì-tí-βú̲ ò-k^{h}ɛ̀ t-à:k^{h}ù
one-⟨SgM⟩-anim-thm I-objAn youImp-give

tì:-tʲʰɛ́-tí-t̲ʲʰ̲ʉ̲̀
that-⟨AnPl⟩-anim-sou
'Give me one of them.'

(685) Oke ájcuube tsáneevu ityáávánetu.
ò-kʰɛ̀ áˣkʰʉ̲̀-ːpɛ̀ tsʰá-nɛ̀ː-β̲ʉ̲̀[10] [ᴳi tʲʰá:βá]-nɛ̀-t̲ʰ̲ʉ̲̀
I-objAn give-⟨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 tsʰa- 'one' followed by a classifier and -βʉ 'theme'). However a partitive phrase does not have to be accompanied by an explicit direct object, as shown by examples 686–688:

(686) ...u tsácooca cúdsɨtu tsívaco...
ʉ̀ tsʰá-kʰò:kʰà kʰʉ́tsɨ-t̲ʰ̲ʉ̲̀ tsʰíβà-kʰò
you come-when pineapples-sou bringImp-implore
'…when you come, bring some pineapple…'

(687) ...dóuháyojé mááhójɨtu.
tóʉ̀ʔá-jò-hɛ́-ʔ má:ʔó-hì-t̲ʰ̲ʉ̲̀
break-sTr-do.come-⟨t⟩ cassava-⟨disk⟩-sou
'…he went and broke off a piece of cassava.'

(688) Ehdúváa nééllere tsehdí íjcyujúwá llíjyutu.
[ɛ̀ʔ-tʉ́-βa̲-a̲ nɛ̀ː] -ʧɛ̀-ɾɛ̀
that-⟨like⟩-rpt-rem say -⟨SgF⟩-only

tsʰɛ̀ʔtí-ʔì í ˣkʲʰ̲ɯ̲̀hʉ́kpá ʧíhʲʉ̀-t̲ʰ̲ʉ̲̀.
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.
ɛ̀ʔ-tʉ́-βa̲-a̲ nɛ̀ː-pɛ̀ tì-pʲɛ̀ pʰɛ̀ː-nɛ̀-t̲ʰ̲ʉ̲̀
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 tsʰá-nɛ̀ː-βʉ̀ 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, -t^hɯ may be left implicit.)

(690) Óhdi(tyu) ɬdáátsóvelle.
ó-ʔtì-(t^{jh}ùɯ) ítá:ts^{h}ó-βè-ʧè 'She has compassion for me.'
I-anim-sou pity-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.[11] 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 -t^hɯ 'source'. (See also the examples that follow 691.)

(691) Ócájikye dohjɬnuube úméhetu.
ók^{h}áhì-k^{jh}è tòʔhɨ-nùɯ-ːpè ɯ́mé-ʔè-t^{h}ùɯ 'He tied the cow to
cow-objAn tie-do-⟨SgM⟩ tree-⟨tree⟩-sou (lit. from) the tree.'

(692) A*awáváa* iújcúne wájcátu pícyoólle.
à:-kpá-βa̋-a̗ ì ɯ̋^{x}k^{h}ɯ́-nè kpá^{x}k^{h}á-t^{h}ùɯ p^{h}ík^{jh}ò:-ʧè
thm-⟨slab⟩-rpt-rem self get-⟨event⟩ branch-sou put-⟨SgF⟩
'Grabbing that hook she put it on (lit. from) a branch.'

(693) …ɬhdééuúvutu ípiijyúwá dóhjɬnúne.
ɨ́ʔté-é-ùɪ-ɯ́βùɪ-t^{h}ùɯ í p^{h}ï:h^{j}ɯ́ɪ-kpá tóʔhì-nɯ́ɪ-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.
í-ʧ^{h}ì-ʔt^{j}ùɯ t-èk^{h}é-ːβé ùɪ-k^{h}è
this-⟨place⟩-sou youImp-grab-sIn you-objAn

mùɯʔts^{h}ì mè p^{h}á^{x}t^{jh}é-ts^{h}ò-k^{h}ì
we.DuM SAP pass-cause-pur
'…grab hold here (lit. from this place) so that we can pass you across.'

[11] See (Jackendoff 1991:112f).

(695) téénetu idyómaúcunúne

tʰé:-nè-t̲ʰù̲ ì tʲ̊ómà-ʉ́kʰù̲nʉ́-nè ‘having been touching
that-⟨ø⟩-sou self touch-sSt-⟨ø⟩ that (lit. from that)’

(696) Ípiijyúwaváa dibye wááone dííllé nííwácotu cápaavyéhi.

[í pʰ^G i:hʲʉ́-kpà-β̌^H a^L-á tì-pʲɛ̀ kp̊^S à:ò]-nɛ̀
self hook-⟨slab⟩-rpt-rem that-⟨SgM⟩ throw-⟨ø⟩

[tí:-ʧɛ́ Ⓖ ní:kpá-kʰò]-t̲ʰù̲ kʰápʰà-:βʲé-ʔì
that-⟨SgF⟩ head-⟨hair⟩ -sou hook-sIn-⟨t⟩
‘That hook of his that he threw hooked her hair (lit. from her hair).’

-tʰɯ ‘source’ is used in combination with tɛ́hʉ̀ ‘behind’ to indicate motion toward something that is moving away, as in 697:[12]

(697) Áju, májo dɨ́ɨtsɨ́ɨjúmu déjutu.

áhʉ̀^(ʔ) , máhò [tí: Ⓖ tsʰɨ́:hʉ́-m̲ʉ̲^G tɛ́hʉ̀ɯ]-t̲ʰù̲
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 -tʰɯ ‘source’ in 697 contrasts with -βɯ ‘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. Íñáálle déjutu peébe.

b. Íñáálle éllevu peébe.

í Ⓖ ɲá:-ʧɛ̀^G [a. tɛ́hʉ̀-t̲ʰù̲ behind-sou / b. ɛ́ʧɛ̀-β̲ʉ̲ place-goal] pʰɛ̀-:pɛ̀ .
self sib-⟨SgF⟩ 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 -tʰɯ ‘source’ may be left implicit):

(699) ó-ʔtì-(tʰù̲) ìˣkʲʰá-nɛ̀ (Óhdi(tu) ijcyáne.) ‘I have it.’
I-anim-sou be-⟨ø⟩

[12]This can be understood in terms of the conceptual directionality of attachment, something like “going attached to a place behind the parents.”

[13]This does not imply that the brother intends to catch up to her, although that might be the case.

[14]It is interesting to compare these with example 1078, page 423.

Given the conceptual direction of attachment, 699 indicates that I am the site at which the subject (the referent of -nɛ ⟨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 -tʰɯ̀ in 700 seem to indicate location:

(700) a. ¿Mútsihdyú Lli uke diíbye?

b. Íchihdyu tábooráyutu

a. mɯ́-tsʰì-ʔtʲɯ́ tʃì⁽ʔ⁾ ɯ̀-kʰɛ̀ tì-ːpʲɛ̀
which-⟨place⟩-sou father you-objAn that-⟨SgM⟩
'Where on you, Father, is it?'

b. í-tʃʰì-ʔtʲɯ̀ Ⓐ tʰá pó:ɾájɯ̀-tʰɯ̀
this-⟨place⟩-sou Ⓐ 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 -tʰɯ̀ is used to indicate the site at which the insect has attached itself.

10.4.6 Time after

-tʰɯ '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) A*a*bév*áa* cúúvénetúré iájkyéne mɨ́ɨ́cúmɨri ɨ́ɨ́témeíhi....

à:-pɛ́-βa̋-a̲ kʰɯ́ː:βɛ́-nɛ̀-tʰɯ́-ɾɛ́ ì a̋ˢxkʲʰɛ́-nɛ̀
thm-⟨SgM⟩-rpt-rem dark-⟨time⟩-sou-only self awake-⟨ø⟩

mí:kʰɯ́mɨ̀-ɾì ɨ́:tʰɛ́-mɛ̀í-ʔì
mirror-oblIn look-ɾ/p-⟨t⟩
'Early in the morning, having awakened, he looked at himself in the mirror....'

In 702 it follows a subordinate clause:

(702) A*a*név*áa áíí*vyénetu teene dóótou neebó "tóó".

à:-nɛ́-βa̋-a̲ a̋ˢíː:βʲɛ́-nɛ̀-tʰɯ̀ tʰɛ̀ː-nɛ̀
thm-⟨ø⟩-rpt-rem burn-sIn-⟨event⟩-sou that-⟨ø⟩

Ⓐ tóːtʰò-ɯ̀ nɛ̀ːpó-ʔ "tʰóː"
squash-⟨sphere⟩ pop.open-⟨t⟩ "bang"
'After it heated up, that squash popped open with a bang.'

10.4.7 Contrast

-tʰɯ ‘source’ may mark the noun phrase indicating something with which another is contrasted. With à:-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 -tʰɯ 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 tsíhdyure ɨɨvajáhjɨ́ mépicyóóhi; móóhóutu méɨ́hdotsó úmé hewáánetu.

a. pʰà-hà né:-hà pʰá-ìʔkʲʰɯ́-tʰɯ́ mɛ́ pʰìkʲʰó:-ʔì
all-⟨clothes⟩ say-⟨clothes⟩ all-⟨frame⟩-sou SAP put-⟨t⟩

b. á:-nɛ̀-tʰù̱ tsʰí-ʔtʲù̱-ɾɛ̀ ɨ́:βà-há-ʔhɨ́
thm-⟨ø⟩-sou other-⟨like⟩-only different-⟨clothes⟩-pl

mɛ́ pʰìkʲʰó:-ʔì mó:ʔó-ù̱-tʰù̱
SAP put-⟨t⟩ vine-⟨vine⟩-sou

[mɛ́ ɨ́ʔtò-tsʰó-ʔ úmɛ́-ʔɛ̀-kpá-:nɛ̀]-tʰù̱
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’

-Ⓛɾì (-ɾi) is used to mark various inanimate obliques; it is only used on inanimate noun phrases and nominalized clauses. -Ⓛɾì 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 nɨ̀:tsʰɯ́kpà ‘machete’. (See also 781, page 311.)

(704) Ɨ́nɨɨtsúwari wákímyeííbye.
í nɨ́ːtsʰɯ́ɯ-kpà-ɾ̲ì̲ kpákʰímʲɛ̀íˑːpʲɛ̀
self machete-⟨slab⟩-oblIn work-⟨SgM⟩
'He works with his slab-like thing (machete).'

(705) Tééwari wákímyeííbye.
tʰɛ́ː-kpà-ɾ̲ì̲ kpákʰímʲɛ̀íˑːpʲɛ̀
that-⟨slab⟩-oblIn work-⟨SgM⟩
'He worked with that slab-like thing (machete).'

(706) Aabéváa ... mɨɨcúmɨri ɨɨtémeíhi...
àː-pɛ́-βa-a … míːkʰɯ́mɨ̀-ɾ̲ì̲ íːtʰɛ́-mɛ̀í-ʔì
thm-⟨SgM⟩-rpt-rem mirror-oblIn look-ɾ/p-⟨t⟩
'He … looked at himself in the mirror…

(707) Cááni mémeri teene újcuúbe.
[kʰáːnɨ mɛ́mɛ̀]-ɾ̲ì̲ tʰɛ̀ːnɛ̀ ɯ́ˣkʰɯ̀ːpɛ̀
father name -oblIn that-⟨ø⟩ get-⟨SgM⟩
'He got it by using his father's name.'

10.5.2 Cause or reason

-ɾì '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) Téénerɨ chémeébe.
tʰɛ́ː-nɛ̀-ɾ̲ì̲ ʧʰɛ́mɛ̀ːpɛ̀ 'That was the cause
that-⟨ø⟩-oblIn sick-⟨SgM⟩ of his being sick.'

(709) Taabóóbej tééveri tsúúca bohɨjúcoóbe.
[tʰàːpóːpɛ̀ˣ tʰɛ́ːβɛ̀]-ɾ̲ì̲ tsʰɯ́ːkʰà pòʔɨ́-hɯ́kʰòːpɛ̀
cure-⟨SgM⟩ influence-oblIn already be.alive-now-⟨SgM⟩
'By the influence of the doctor, he is now better.'

(710) Mítyane imájchóneri chémeébe.
[mítʲʰà-nɛ̀ ì máˣʧʰó]-nɛ̀-ɾ̲ì̲ ʧʰɛ́mɛ̀ːpɛ̀
much-⟨ø⟩ self eat -⟨ø⟩-oblIn be.ill-⟨SgM⟩
'He got sick by eating a lot.' (or '…because he ate a lot.')

(711) Íñáállekéváa iéévátsóneri iñúcójpɨvéne péjúcoóbe.
í Ⓖ ɲáː-ʧɛ̀-kʰɛ́-βa-a
self sib-⟨SgF⟩-objAn-rpt-rem

ì ˢɛ:βá-tsʰó-nɛ̀-ɾ̲ì̲
self pregnant-cause-⟨event⟩-oblIn

ì ɲʉ́kʰóˣpʰɨ́-βɛ́-nɛ̀ pʰɛ́-hʉ́kʰò-:pɛ̀
self shame-sIn-⟨event⟩ go-now-⟨SgM⟩

'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,[15] 713, and 783, page 312.

(712) Juuváyiváa ávyéjuube méénikye iájtyúmɨ́ɨ́beke añúhi.

hʉ̀:βá-jì̲-βaˊ-àˋ áβʲɛ́hʉ̀-:pɛ̀ mɛ́:nì-kʲʰɛ̀
trail-oblIn-rpt-rem reign-⟨SgM⟩ peccary-objAn

Ⓐ [ì ˢaˣtʲʰʉ́mɨ́]-:pɛ̀-kʰɛ̀ àɲʉ́-ʔì
self see -⟨SgM⟩-objAn shoot-⟨t⟩
'The chief, seeing a peccary on the trail, shot it.'

(713) Tééjaɾi diíbye.

tʰɛ́:-hà-ɾ̲ì̲ tì-:pʲɛ̀ '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 ᴴʉniɯ, as in example 714:

(714) Táúníuri diíbye.

tʰá Ⓖ ᴴʉníʉ̀-ɾ̲ì̲ tì-:pʲɛ̀ 'He is at my side.'
my side-oblIn that-⟨SgM⟩

See also tʰɛ̀:ʔí ᴴʉníʉ̀-ɾì '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 ìáˣtʲʰʉ́mɨ́:pɛ̀kʰɛ̀ 'the one that he saw' in apposition to mɛ́:nìkʲʰɛ̀ 'peccary'. An alternative is to take mɛ́:nìkʲʰɛ̀ as the direct object of aˣtʲʰʉ́mɨ́ 'see' in the relative clause.

(715) T*á*ña*a*lle *á*cuúcunú *á*cúúveíhcyú hallú*r*i.

t^{h}á Ⓖ ɲa^{L}ː-ʧɛ̀ ák^{h}ù-ú́k^{h}ù̀nú́-^{ʔ}
my sib-⟨SgF⟩ sit-sSt-⟨t⟩

[ák^{h}ú́-ːβɛ̀-íʔk^{jh}ú́ ʔ^{LG}á̀tʃú́]-r̲ì
sit-sIn-⟨frame⟩ top -oblIn
'My sister is sitting on top of the chair.'

(716) T*á*ña*a*lle *á*cujcáró ɨjtsɨɨméneke *á*cúúveíhcyú hallúvu.

t^{h}á Ⓖ ɲa^{L}ː-ʧɛ̀ ák^{h}ù-^{x}k^{h}á*r*ó-^{ʔ} ɨ́ Ⓖ ^{x}ʦ^{hG}ɨːméné-k^{h}è
my sib-⟨SgF⟩ sit-sIn-⟨t⟩ self child-objAn

[ák^{h}ú́-ːβɛ̀-íʔk^{jh}ú́ ʔ^{LG}á̀tʃú́]-β̲ù̀
sit-sIn-⟨frame⟩ top -goal
'My sister sat her child down on top of the chair.'

-*r*i is not used following a locational phrase headed by p^{h}a^{L}ɲɛ 'inside'; for example, 717a is correct but 717b is ungrammatical:[16]

(717) T*á*ña*a*lle *á*cuúcunú ihjy*á* pañe{a. ø / b. *-ri}.

t^{h}á Ⓖ ɲa^{L}ː-ʧɛ̀ ák^{h}ù-ú́k^{h}ù̀nú́-^{ʔ}
my sib-⟨SgF⟩ sit-sSt-⟨t⟩

[[ì^{GʔL} h^{j}á] Ⓖ p^{h}a^{L}ɲɛ̀] {a. ø / b. *-ri}
self house inside
'My sister is sitting in her house.'

10.5.4 Medium

A noun phrase marked with -*r*ì 'inanimate oblique' may refer to that along which something moves or to a medium of conveyance. See the following examples:

[16] p^{h}a^{L}ɲɛ 'inside' may be followed by a case marker, e.g., -βù 'goal' in the following:

t^{h}á Ⓖ ɲa^{L}ː-ʧɛ̀ p^{h}é-^{ʔ} [[ì^{GʔL} h^{j}á] Ⓖ p^{h}a^{L}ɲé]-βù (T*á*ña*a*lle péé ihjy*á* pañévu.)
my sib-⟨SgF⟩ go-⟨t⟩ self house inside -goal
'My sister goes into her house.'

(718) Tééjuri peébe.
tʰɛ́ː-hɯ̀ɯ-rì̲ pʰɛ̀-ːpɛ̀ ‘He went along that trail
that-⟨stick⟩-oblIn go-⟨SgM⟩ (road,…).’

(719) Téémɨri peébe.
tʰɛ́ː-mɨ̀-rì̲ pʰɛ̀-ːpɛ̀ ‘He went in that car (boat,
that-⟨canoe⟩-oblIn go-⟨SgM⟩ airplane,…).’

(720) Tééjuri ihjyúvaábe.
tʰɛ́ː-hɯ̀ɯ-rì̲ ìʔhʲɯ́βà-ːpɛ̀ ‘He spoke in
that-⟨mouth⟩-oblIn speak-⟨SgM⟩ that language.’

10.5.5 Topic of conversation

-rì ‘inanimate obliques’ may be used on a noun phrase that indicates the topic of conversation:

(721) Téénerɨ ihjyúvaábe.
tʰɛ́ː-nɛ̀-rì̲ ìʔhʲɯ́βà-ːpɛ̀ ‘He talked about that.’
that-⟨ø⟩-oblIn talk-⟨SgM⟩

(722) Árónáacáváa diibye Píívyéébe hájkímú téénerɨ ihjyúvahíjcyáhi.
á-ɾó-náàkʰá-βa̋-a̗ [[tì-ːpʲɛ̀ Ⓐ pʰíːβʲɛ́-ːpɛ̰]
thm-frs-while-rpt-rem that-⟨SgM⟩ create-⟨SgM⟩

ʔáˣkʰí-mɯ́] tʰɛ́ː-nɛ̀-rì̲ ìʔhʲɯ́βà-ˀ íˣkʲʰá-ʔì
relative-plAn that-⟨ø⟩-oblIn talk-sub be-⟨t⟩
‘However, the Creator’s relatives were talking about it.’

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:

(723) Tsaapíváa péé méwánííhyoma bájú pañévu.

tsʰà-ːpʰí-βa̋-à pʰɛ́ː-ʔ mɛ́kpá-níːʔʲò-mà
one-⟨SgM⟩-rpt-rem go-⟨t⟩ wife-⟨mother⟩-with

páhứ pʰa̰ɲɛ́-βʉ̀
jungle inside-goal
'A man went with his wife into the jungle.'

(724) a. Táñáhbema o pééhi.

b. Táñáhbema muhtsi mepééhi.

tʰá Ⓖ ɲá-ʔpɛ̀-mà { a. ò / b. mʉ̀ʔtsʰì mɛ̀ (we.DuM SAP) } pʰɛ́ː-ʔì
my sib-⟨SgM⟩-with 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) Dííbyema wákímeííbyema péjúcoóbe.

[tí-ːpʲɛ̀$_j$-mà kpákʰímɛ̀í-]-ːpʲɛ̀$_k$-mà pʰɛ́-hứkʰò-ːpɛ̀$_i$
that-⟨SgM⟩-with work- -⟨SgM⟩-with go-now-⟨SgM⟩
'He$_i$ went with the one$_k$ who works with him$_j$.'

In 726 tsʰíːɲɛ́ ìːɲứhɨtʰʉ̀ tsʰáːpɛ̀mà 'with the one (SgM) who came from another country' is in apposition to tsʰíˣpʰìmà 'with the other (SgM)'.

(726) Tsíjpima tsííñé iiñújɨtu tsáábema íhjyúvaábe.

tsʰíˣpʰì-mà Ⓐ [tsʰíː-ɲé ìːɲứ-hì-tʰʉ̀ tsʰá]-ːpɛ̀-mà
other-with other-⟨ø⟩ dirt-⟨disk⟩-sou come -⟨SgM⟩-with

íʔhʲứβà-ːpɛ̀ '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:

Dííbyema iwákímeííbyema péjúcoóbe.
[tí-ːpʲɛ̀$_k$-mà ì$_i$ kpákʰímɛ̀í-]-ːpʲɛ̀$_k$-mà pʰɛ́-hứkʰò-ːpɛ̀$_i$
that-⟨SgM⟩-with self work- -⟨SgM⟩-with go-now-⟨SgM⟩
'He$_i$ went with the one$_k$ he$_i$ works with ø$_k$.'

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.
à:-nɛ̀ [ì máˣʧʰó]-nɛ̀-mà pʰɛ́-hʊ́kʰò-ːpɛ̀
thm-⟨ø⟩ self eat -⟨ø⟩-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 second sentence 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) Ɨ́ɨcúiváa ávyéjuube ujcú íañúju. Áánemáváa oohííbyeke áñuube cuwájá pañétu.
íːkʰʊ́ì-βa-a áβʲɛ́hʊ̀-ːpɛ̀ ʊ̀ˣkʰʊ́-ʔ í ãɲʊ́-hʊ̀
quickly-rpt-rem reign-⟨SgM⟩ get-⟨t⟩ self shoot-⟨gun⟩

áː-nɛ̀-má-βa-a òːʔíː-pʲɛ̀-kʰɛ̀ áɲʊ̀-ːpɛ̀
thm-⟨ø⟩-with-rpt-rem jaguar-⟨SgM⟩-objAn shoot-⟨SgM⟩

kʰɯ̃kpá-há Ⓖ pʰãɲɛ́-tʰʊ̀
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:

(729) Mɨɨhenéváa ávyéjuube tsajtyé cóómívuú. Áánemáváa wájyamu újcuúbe.

mí:ʔɛ̀-nɛ́-βa̋-à áβʲɛ́hɯ̀-:pɛ̀ tsʰà^{x}tʲʰɛ́-ʔ kʰó:mí-βɯ̀:
skin-pl-rpt-rem reign-⟨SgM⟩ take-⟨t⟩ town-goal

á:-nɛ̀-má-βa̋-à kpáhʲàmɯ̀ ɯ́^{x}kʰɯ̀-:pɛ̀
thm-⟨ø⟩-with-rpt-rem cloth get-⟨SgM⟩
'The chief took the skins to town. With them, he got cloth.'

In the second sentence of 730 it appears to refer to the aforementioned water. (tʰɯ 'cook' means to cook by boiling in water.)

(730) Aané boonéváa nújpacyo újcuúbe. Áánemáváa néépicyóke tuube cúújúwá hallúvu.

[à:-nɛ́ Ⓖ pò:nɛ́]-βa̋-à nɯ́^{x}pʰàkʲʰò ɯ́^{x}kʰɯ̀-:pɛ̀
thm-⟨ø⟩ after -rpt-rem water get-⟨SgM⟩

á:-nɛ̀-má-βa̋-à né:pʰɪ̀kʲʰó-kʰɛ̀ tʰɯ̀-:pɛ̀
thm-⟨ø⟩-with-rpt-rem squirrel-objAn cook-⟨SgM⟩

[kʰɯ́:hɯ́kpá Ⓖ ʔàtʃɯ́]-βɯ̀
fire top -goal
'After that he got water. With that (the water) he cooked the squirrel on top of the fire.'

Despite appearances, the connectives in 728–730 may simply indicate *circumstance*, with -ma used as in the previous section (10.6.2).

10.6.4 Beneficiary

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 ɔ́ɔ́ma dsɨ́jcolle.

tʰá kpa̋hʲámɯ́ ó:-mà tsɨ́^{x}kʰò-tʃɛ̀ 'She sewed
my clothes I-with sew-⟨SgF⟩ my clothes for me.'

(732) Téhdure úúma díwajyámú ó tsiváhi.

tʰɛ́-ʔtɯ̀-ɾɛ̀ ɯ́:-mà tí kpa̋hʲámɯ́ ó tsʰìβá-ʔì
that-⟨like⟩-only you-with your cloth I bring-⟨t⟩
'I also brought your cloth for you.'

10.7 -hlliíhye ∼ -llii ‘motive’

The suffix -ˀʧi:ʔʲɛ (-hlliihye) ‘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, -⁽ˀ⁾ʧi:ʔʲɛ is used at the end of a sentence and the shorter form -⁽ˀ⁾ʧii is used sentence medially.

10.7.1 Beneficiary

The suffix -⁽ˀ⁾ʧi(:ʔʲɛ) (-lliihye) indicates that its host’s referent is the person benefited by the event indicated by the clause. Examples follow:

(733) Óhllii teene méénuúbe.
ó-ˀʧì: tʰɛ̀:-nɛ̀ mɛ́:nɯ̀-:pɛ̀ ‘He made it for me.’
I-motive that-⟨ø⟩ make-⟨SgM⟩

(734) Teene ó meenú táiiñújɨ múnáálliíhye.
tʰɛ̀:-nɛ̀ ó mɛ̀:nɯ́-ˀ [[tʰá ᴳi:ɲɯ́-hɨ̀ᴳ] mɯ́ná:]-ʧì:ʔʲɛ̀
that-⟨ø⟩ 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 -nɛ ⟨event⟩ is followed by -⁽ˀ⁾ʧi(:ʔʲɛ) (-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 péédityú o chéménélliíhye.
tsʰᴴáˀ ò pʰé:-ì-tʲʰɯ́ [ò ʧʰˢɛ̀mé]-né-ʧì:ʔʲɛ̀
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) Pá́á́a májchoobe iájyábáávaténélliíhye
pʰá:à máˣʧʰò-:pɛ̀ [ì áhʲápá:-βà-tʰé-né-ʧì:ʔʲɛ̀
bread eat-⟨SgM⟩ self hunger-become-go.do-⟨event⟩-motive
‘He ate the bread because he became hungry.’

(737) Tsɬɬmene t*áá*nélliі tsɬɬju ihbúcúhi.

[tsʰɪ́ːmɛ̀nɛ̀ tʰa̤ː]-né-ʧi̲ː tsʰɪ̀ːhɯ̀ ɪ̀ʔpɯ́kʰɯ́-ʔɪ̀
child cry -⟨event⟩-motive mother pick.up-⟨t⟩
'Because the child cried, the mother picked it up.'

-nɛ̀-ʧi (-⟨ø⟩-motive) is also used this way in sentence-initial connectives referring to the preceding sentence, as in 738:

(738) Á*á*nélliі o péjucóóhi.

á:-né-ʧi̲ː ò pʰé-hɯ̀kʰóː-ʔɪ̀ 'For that reason,
that-⟨event⟩-motive I go-now-⟨t⟩ I am now going.'

Another possibility is to use -(ʔ)ʧi(ːʔʲɛ) 'motive' with a nonfinite verb. In this case it does not bear -nɛ ⟨ø⟩ and may "possess" its direct object:

(739) Ávyéjuube pítya*á*cójca*a*tsí m*ɨ*a*a*mún*á*á*a*ma éhjácóbá ímibájchólliíhye.

áβʲéhɯ̀ː-pɛ̀ pʰítʲʰákʰó-ˣkʰàtsʰí-ʔɪ̀ mɨ́a̤mɯ́náà-mà
reign-⟨SgM⟩ discuss-recip-⟨t⟩ people-with

[é⁷-há-kʰópá Ⓖ ími̤pá^x ʧʰó]-ʧi̲ːʔʲɛ̀
that-⟨shelter⟩-big fixing -motive
'The chief coordinated with the people about fixing the big house.'

10.8 -hdu 'comparative'

As to form, -Ⓛ◯ʔtɯ (-hdu) 'comparative (like)' occurs after monosyllabic roots and -Ⓛ◯tɯ (-du) occurs elsewhere.

-Ⓛ◯(ʔ)tɯ 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. -Ⓛ◯tɯ 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 -ʔtɯ 'like' may do so, as in 740:

(740) ó-ʔtɯ̀ nɛ̀-ːpɛ̀ (Óhdu neébe.) 'He is like me.'
I-like say-⟨SgM⟩

Likewise a classifier may not follow pʰá:βòrò 'Paul', but -ʔtɯ may, as in example 741:

(741)
a. hóáà pʰá:βòɾó-tɯ̀ (Jóáa Páávoródu.)
John Paul-like
b. pʰá:βòɾó-tɯ̀ hóáà:[18] (Páávoródu Jóáaá.)
Paul-like John-emph
a,b. 'John is like Paul.'

(742) a. Táñahbédú diíbye.
b. Táñahbe dííbyedu.
a. tʰá Ⓖ ɲa̋-ʔpé-tɯ́ tì-:pʲè 'He is like
my sib-⟨SgM⟩-like that-⟨SgM⟩ my brother.'
b. tʰá Ⓖ ɲa̋-ʔpè tí-:pʲè-tɯ̀ 'My brother
my sib-⟨SgM⟩ that-⟨SgM⟩-like is like him.'

(743) Tsá dííbyedu o néétune.
tsʰa̋ʔ tí-:pʲè-tɯ̀ ò né:-tʰɯ̀-nè
not that-⟨SgM⟩-like I say-neg-⟨n⟩
'I am not like him.' (lit. 'I do not say like him.')

-Ⓛ◯tɯ '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 -tɯ 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 dibye méénudu méénutúne.
tsʰa̋ʔ tsʰì-ˣtʲʰè [tì-pʲè mɛ̋:nɯ̀]-tɯ̀ mé:nɯ̀-tʰɯ́-nè
not other-⟨AnPl⟩ that-⟨SgM⟩ do -⟨like⟩ do-neg-⟨n⟩
'The others do not do like he does.'

In 745 -Ⓛ◯tɯ heads a postpositional phrase (tí-:pʲè-tɯ̀) that complements iˣkʲʰa 'be'; the predicate-complement sentence is the object complement of ìmìʧé 'want':

(745) Ó imillé dííbyedu o íjcyane.
ó ìmìʧé-ʔ [tí-:pʲè-tɯ̀ ò íˣkʲʰà]-nè 'I want to be
I want-⟨t⟩ that-⟨SgM⟩-like I be -⟨ø⟩ like him.'

In 746 -ʔtɯ heads a postpositional phrase that is a predicate complement within a relative clause:

(746) Ó imíllé tsawa úméhewa íwahdu nééwaá.
ó ìmíʧé-ʔ tsʰà-kpà Ⓐ úmé-ʔè-kpà
I want-⟨t⟩ one-⟨slab⟩ tree-⟨tree⟩-⟨slab⟩

[18] The final low vowel has undergone FLTS.

Ⓐ [^{H}í-kpà-^{ʔ}tù̱ ø$_i$ ^{S}nɛ̀ː]-kpàː$_i$
this-⟨slab⟩-like say -⟨slab⟩
'I want a plank like this one.'

In 747 -tɯ heads a relative clause:

(747) O íjcyadu tsá dibye íjcyatúne.
[ò ^{S}ǐ^{x}k^{jh}à]-tù̱ɯ̀ ts^{h}^{H}a^{ʔ} tì-p^{j}ɛ̀ ǐ^{x}k^{jh}à-t^{h}ɯ́-nɛ̀
I be ⟨like⟩ not that-⟨SgM⟩ be-neg-⟨n⟩
'He does not live like I live.'

Let us now return to cases where -^{ʔ}tɯ 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 -^{ʔ}tɯ ⟨like⟩ is followed by -t^{h}ɯ 'source':

(748) ¡Múhdutúráami ó péétsáméiíj!
mɯ́-^{ʔ}tù̱-t^{h}ɯ́-ɾá-àmì ó p^{h}éː-ts^{h}á-mɛ́ì-í-^{x}
WH-⟨like⟩-sou-frs-wonder I go-cause-ɾ/ɲ-fut-voc
'…How in the world can I make it disappear?!'

Second, $^{(ʔ)}$tɯ ⟨like⟩ frequently follows bound pronominal roots, which *must* be followed by a classifier. These are t^{h}ɛ- 'that', a- 'thematic', ɛ- 'that', mɯ- 'who, which', and p^{h}a- 'all'.

Third, $^{(ʔ)}$tɯ ⟨like⟩ can head a relative clause, as in 744 and 747 above and in 749:

(749) Áronéváa ipyéhdú pehíjcyáhi.
á-ɾò-nɛ́-β^{H}a̱-^{L}ā [ì p^{jh}^{S}ɛ̀]-^{ʔ}tú̱ p^{h}ɛ̀-^{ʔ} ǐ^{x}k^{jh}á-ʔì
thm-frs-⟨ø⟩-rpt-rem self go -⟨like⟩ go-sub be-⟨t⟩
'It kept on happening like it was happening.'

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 -^{ʔ}tɯ, showing that in this case it is a classifier.[19]

(750) éhduwáre
ɛ́-^{ʔ}tù̱-kpá-ɾɛ̀ 'a slab (plank,…) just like that one'
that-⟨like⟩-⟨slab⟩-only

[19]The structure of 750 is as follows, where both -^{ʔ}tɯ 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]

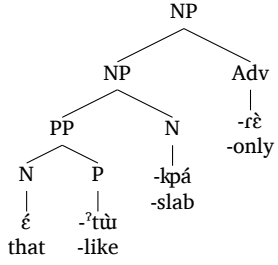
(751) Llihíyoj, ¡dúcaáve!
tʃìʔíjò-^{x} , t-ɯ́k^{h}à-ːβɛ̀
father-voc youImp-enter-sIn
'Father, come in!'

(752) Ámuúha táñahbémuj, méucááve.
ámɯ̀ːʔà t^{h}á Ⓖ ɲa̲^{L}-ʔpɛ́-mɯ̀-^{x} , mɛ́ ɯ̀k^{h}á-ːβɛ̀
you.pl my sib-⟨SgM⟩-plAn-voc SAP enter-sIn
'You, my brothers, enter!'

(753) Ámúhakye o wájyumej, méucááve.
ámɯ́ʔà-kʲ^{h}ɛ̀ ò kpáh^{j}ɯ̀-mɛ̀-^{x} , mɛ́ ɯ̀k^{h}á-ːβɛ̀
you.pl-objAn I esteem-⟨AnPl⟩-voc SAP enter-sIn
'Esteemed ones, enter!'

(754) Méucááve, táwajyújtej.
mɛ́ ɯ̀k^{h}á-ːβɛ̀ , t^{h}á kpa̲h^{jG}ɯ́-^{x}t^{h}ɛ̀-^{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':



[20]The comma indicates a break/pause.

(755) Péédo, Péédoroj, ¡dich*á*juj!
pʰé:tò , pʰé:tòɾò-ˣ , tì-ʧʰá-hù̱-ˣ
Peter Peter-voc youImp-come-quick-voc
'Peter, Peter, come quickly!'

Some conventional vocatives are listed in 756:

(756) a. ɲàˣ (ñ*a*j) 'sibling'
b. nɛ́ˀnìˣ (néhnij) 'ugly (one)'
c. kʰɛ́mɛ̀ˣ (kémej) 'old one'
d. { tʃìˀíjòˣ (llihíyoj) / tʃìˀíù̱ˣ (llihíuj) / tʃíˀìˣ (llíhij) } '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. máɾímù̱ʧè (M*á*rímulle)
b. májìˣ (M*á*yij)

-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) A*a*név*áa* neébe: "Llíhij, m*á*jo mem*á*jchokij".
à:-nɛ́-βa̱-a̱ nɛ̀-:pɛ̀ tʃíˀì-ˣ ,
thm-⟨ø⟩-rpt-rem say-⟨SgM⟩ son-voc

máhò mɛ̀ mâˣʧʰò-kʰì-ˣ̱
let's SAP eat-pur-voc
'Then he said, "Son let's eat".'

(759) óβíî , ò tʃɛ́:nɛ̀-ˣ̱ (Óvíi, o lléénej.) 'Wait, I'll eat it.'
wait I eat-voc

This use of -ˣ is also found in self-directed quotes, that is thoughts represented as direct quotes, as in 748 above.

Chapter 11

Clitics

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.[1] 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 ∼ -Ⓗσ̲ 'remote past', -ˀnɛ 'recent past', and -ìíkʲʰɛ̀ ∼ -ì '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' iˣkʲʰa 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 -:pɛ̀ -⟨SgM⟩, suggest that -rò is a suffix rather than a clitic.

Table 11.1 The order of clitics

ONLY	MODAL	FUT[a]	FRS[b]	PROB[c]	REALIZE	REP[d]	NWIT[e]	TENSE
-ɾɛ	-hɯkʰo -hɨ́ː(βa) -ʔiˣkʲʰa -ʔtɛ	-i(ɨ́kʲʰɛ)	-ɾo	-ɯpa	-ʔa(ákʰa) -kʰa	-βa	-ʔha	-pʰɛ ∼ -Ⓗσ̲ -ne

[a] future
[b] frustrative, contraexpectation
[c] probable
[d] reportative
[e] 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
á:-nɛ̀-ɾɛ́-hɯ̀kʰó-ʔhá-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 infomation. 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 ∼ -Ⓗσ̲ ‘remote past’ or -(ʔ)nɛ ‘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 muurá máájtyumɨ́jucóó éhnéhjáa u méénune.
mɯ̀ʔà mɯ̀ːɾá má áˣtʲʰɯ̀mɨ́-hɯ̀kʰóː-ʔ
we confirm SAP see-now-⟨t⟩

[ɛ́ʔ-nɛ́-ʔha̲-a ù̀ mɛ̀ːnù̀]-nɛ̀
that-⟨ø⟩-nwit-rem you make -⟨ø⟩
'We (ex.) have already seen what you made.'

Other examples follow:

(762) Oohííbyéhjá{-pe / -a} úmɨváhi.

oːʔíː-pʲɛ́-ʔha̲	{-pʰɛ̀ / -a / rem}	'The dog escaped
dog-⟨SgM⟩-nwit	úmɨ̀βá-ʔì	some time ago.'
	escaped-⟨t⟩	(I did not see it.)

(763) Oohííbyéhjáne úmɨváhi.
oːʔíː-pʲɛ́-ʔhá-nɛ̀ úmɨ̀βá-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 -ʔha (-hja) 'nonwitnessed' is to indicate that he did not see it while it was burning, only some considerable time after it burned:

(764) Ó ájtyumɨ tsajáhjáa jaa aíívyeja.
ó áˣtʲʰù̀mɨ́-ʔ tsʰà-há-ʔha̲-a
I see-⟨t⟩ that-⟨shelter⟩-nwit-rem

Ⓐ [hà: áí-ːβʲɛ̀²]-hà
shelter burn-sIn -⟨shelter⟩
'I saw a house that had burned (but I did not see it happen).'

11.1.2 -va '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.
tìːpʲɛ́-βá pʰɛ̀-ɛ́-ʔ úːmàː 'Someone says that he
that-⟨SgM⟩-rpt go-fut-⟨t⟩ you-with will go with you.'

[2]Note 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
á:-nɛ̀-ɾá tʰá Ⓖ ɲá:-ʧɛ̀-kʰɛ̀ nɛ̀-:pɛ̀
that-⟨event⟩-frs my sib-⟨SgF⟩-objAn say-⟨SgM⟩

a. ì pʲʰɛ́:-ì-tʲʰɯ́-nɛ̀
self go-fut-neg-⟨n⟩
b. ì:-βà ì pʲʰɛ́:-ì-tʲʰɯ́-nɛ̀
self-rpt self go-fut-neg-⟨n⟩
'On the contrary, he$_i$ told my sister that (someone said) he$_i$ 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 my sister that someone reported that he was not going.

(767) Oke táñahbe úúballé ávyéjuubéváa íiiñújɨvu pééneé.

ò-kʰɛ̀ tʰá Ⓖ ɲa̲ˡ-ʔpɛ̀ ú:pàʧɛ́-ʔ [áβʲɛ́hù-:pɛ́-βa̲ᴴ-a̲ˡ
I-objAn my sib-⟨SgM⟩ tell-⟨t⟩ reign-⟨SgM⟩-rpt-rem

í ɪ̲ᴳ:ɲɯ́-hɨ̀-βʊ̀ɯ pʰɛ́:]-nɛ̀:
self dirt-⟨disk⟩-goal go -⟨ø⟩
'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.

a. tsʰa̲ᴴʔ ò-βà
not I-rpt
b. tsʰa̲ᴴʔà-βà
not-rpt

ò pʰɛ́:-ì-tʲʰɯ́-nɛ̀
I go-fut-neg-⟨n⟩

'Someone said that I am not going.'

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, "Péjcore ó peé táiiñújɨvu".

b. Oke neebe péjcore íiiñújɨvu ipyééiñe.

c. Péjcorévá pééiibye íiiñújɨvu.

a. ò-kʰɛ̀ nɛ̀-ːpɛ̀ ,[3] “pʰɛ́ˣkʰòɾɛ̀ ó pʰɛ̀-ɛ́-ʔ
I-objAn say-⟨SgM⟩ tomorrow I go-fut-⟨t⟩

tʰá ɪ̀ːɲʊ́ɯ́-hɪ̀-βʊ̀ɯ”
my dirt-⟨disk⟩-goal

b. ò-kʰɛ̀ nɛ̀-ːpɛ̀ pʰɛ́ˣkʰòɾɛ̀ í ɪ̀ːɲʊ́ɯ́-hɪ̀-βʊ̀ɯ
I-objAn say-⟨SgM⟩ tomorrow self dirt-⟨disk⟩-goal

ì pʲʰɛ́ː-ì-ɲɛ̀
self go-fut-⟨ø⟩

c. pʰɛ́ˣkʰòɾɛ́-βá pʰɛ́ː-ì-ːpʲɛ̀ í ɪ̀ːɲʊ́ɯ́-hɪ̀-βʊ̀ɯ
tomorrow-rpt go-fut-⟨SgM⟩ self dirt-⟨disk⟩-goal

a. “He said to me, “Tomorrow I will go to my country.”
b. ‘He said to me that he would go to his country tomorrow.’
c. ‘He will go to his country tomorrow (so I was told).’

The clitic -βa ‘reportative’ may be used in questions, as in 770:

(770) a. à ʊ̀ɯ-βà
ques you-rpt
b. à-βà
ques-rpt
ʊ́ɯ pʰɛ̀-ɛ́-ʔɪ̀
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; ɨ́mɨ̀á:nɛ̀ is a predicate complement to an implicit copula:

(771) ¿Ava ɨ́mɨááne?

à-βà ɨ́mɨ̀á:-nɛ̀ ‘Is what he said true?’
ques-rpt true-⟨ø⟩

The two evidential clitics, -βa ‘reportative’ and -ʔha ‘nonwitnessed’, may co-occur:

(772) Jotséevahjápe úmɨvá.

hòtsʰɛ́ɛ̀-βá-ʔhá-pʰɛ̀ ʊ́mɨ̀βá-ʔ ‘Joseph escaped
Joseph-rpt-nwit-rem escape-⟨t⟩ (some time ago).’

[3] In 769a PLTS applies to nɛ̀-ːpɛ̀ where it is phrase final (as indicated by the comma), so it is pronounced nɛ̀ɛ́pɛ̀ (written neébe). By contrast, in 769b PLTS does not apply because it is not phrase final, so nɛ̀-ːpɛ̀ is pronounced nɛ̀ːpɛ̀ (written neebe).

Here, -βa 'reportative' indicates that someone informed the speaker that Joseph had escaped; -ˀha '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 dsɬjɬvetsó bájú pañe.

tʰá Ⓖ ɲá-ˀpé ᴳoᵏʰáhì-kʲʰé-βá-ˀhaᴴ-aᴸ oᴸ:ʔí-:pʲè
my sib-⟨SgM⟩ cow-objAn-rpt-nwit-rem jaguar-⟨SgM⟩

tsɬhíβè-tsʰó-ˀ [páhɯ́ Ⓖ pʰaᴸɲè]
die-caus-⟨t⟩ jungle inside
'A jaguar killed my brother's cow in the jungle.'

Whoever said 773 heard it from someone who had not observed the event, 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), -hɯkʰo 'focus' (11.2.2), -hi:(βa) 'deny' (13.3), -ɯpa 'probable' (11.2.3), -ʔa(a:kʰa) 'realize' (11.2.4), -ɾa -ɾo 'frustrative, contraexpectation' (11.2.5), -kʰà 'doubt' (11.2.6), -ʔa(ha) 'challenge veracity' (11.2.7), -ami 'disgust' (11.2.8), -ˀtɛ 'able' (11.2.9), -mɛi 'pity' (11.2.10), -ˣtʰanɛ 'exclude' (11.2.11), -βɛ́hiɯ '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 -re ∼ -ye 'only'

-ɾɛ (-re) ∼ -jɛ (-ye) 'only' indicates the host's referent to the exclusion of others. Examples follow:

(774) Dííllere cheméhi.

tí:-ʧè-ɾè ʧʰèmé-ʔì 'Only she is sick' or
that-⟨SgF⟩-only sick-⟨t⟩ 'She alone is sick.'

(775) Ó imíllé táñáhbekéré o tsájtyene.

ó ìmíʧé-ˀ tʰá Ⓖ ɲá-ˀpè-kʰé-ɾé ò tsʰáˣtʲʰè-nè
I want-⟨t⟩ my sib-⟨SgM⟩-objAn-only I take-⟨ø⟩
'I want to take just my brother (no one else).'

(776) íkʲʰo:kʰá-ɾɛ̀ (ícyoocáre) ‘right now’
now-only

(777) Tsáápiye teene meenúhi.
tsʰá:-pʰì-jɛ̀ tʰɛ̀:-nɛ̀ mɛ̀:nʊ́-ʔì ‘Only one guy did that.’
one-⟨SgM⟩-only that-⟨ø⟩ did-⟨t⟩

(778) a. Tsá múúhaye wákimyévu mepéétyúne.
b. Tsá múúhaye mewákímyeítyéityú(ne).

tsʰa̋ʔ mʊ́ɪ:ʔà-jɛ̀
not we-only

a. kpákʰìmʲé-βʊ̀ mɛ̀ pʰé:-ì-tʲʰʊ́-nɛ̀
work-goal SAP go-fut-neg-⟨n⟩
b. mɛ̀ kpákʰímʲɛ̀í-tʲʰé-ì-tʲʰʊ́-(nɛ̀)
SAP work-go.do-fut-neg-⟨n⟩

‘We (ex.) are not the only ones { a. going to the job (work).’ / b. going to work.’ }

(779) Ó wáhdáhɬnúmeí tátyájkíityu tánɨɨtsúwaríye.
ó kpáʔtáʔí-nʊ́-mɛ̀í-ʔ tʰá Ⓖ tʲʰáˣkʰíì-tʲʰʊ̀
I cut-mTr-ɾ/p-⟨t⟩ my leg-sou

tʰá Ⓖ nɨ́:tsʰʊ́-kpà-ɾí-jɛ̀
my machete-⟨slab⟩-oblIn-only
‘I cut my leg with my very own machete.’

11.2.2 -juco ‘focus’

The second-position clitic -Ⓛ◯hʊ̀kʰo (-juco) ‘focus’ is obviously related to the verbal suffix -Ⓛ◯hʊ́kʰo: ‘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.

-Ⓛ◯hʊ̀kʰo ‘focus’ occurs on various types of constituents to mark them as focal, as in 780 and 781:

(780) a. tì-:pʲé-hʊ̀kʰò (Diibyéjuco.) ‘(It was) HE.’
that-⟨SgM⟩-focus
b. tí-:pʲɛ̀-ɾé-hʊ̀kʰò (Dííbyeréjuco.) ‘(It was) ONLY he.’
that-⟨SgM⟩-only-focus

(781) Íñeríyéjuco tsahróbari nujpáñu.[4]
í-ɲɛ̀-ɾí-jɛ́-hɯ̀kʰò tsʰà²ɾópà-ɾì nɯ̀ˣpʰá-ɲɯ̀
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 ékéévéébeke dityétsí píjyúcuróné vúdoové pɬɬnée-móvúre.
à-²tɯ́-hɯ̀kʰó-βa̋-a̲ [ɛ̋kʰɛ́-ːβɛ́-ːpɛ̀-kʰɛ̀ tì-tʲʰɛ́tsʰí
thm-⟨like⟩-focus-rpt-rem grab-sIn-⟨SgM⟩-objAn that-⟨DuM⟩

pʰíhʲɯ́kʰɯ̀-ɾó]-nɛ́ βɯ́tò-ːβɛ́-²ì
hook-frs -⟨ø⟩ break-sIn-⟨t⟩

pʰíːnɛ́-ɛ̀-mó-βɯ́-ɾɛ̀
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.'

-hɯ̲kʰo 'focus' is used in the formation of a sort of CLEFT sentence. This is formed by placing -hɯkʰo '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 -nɛ̀ ⟨ø⟩ on the main verb. For example, in 783 the focus is on the trail and the verb is pʰɛ́ː-nɛ̀ (go-⟨ø⟩):

(783) Aalléváa juuváyiyéjuco péène ijyééúwuúmuma.
à:-ʧɛ́-βa̋-a̲ hɯ̀ːβá-jì-jɛ́-hɯ̀kʰò pʰɛ̋ː-nɛ̀
thm-⟨SgF⟩-rpt-rem trail-oblIn-only-focus go-⟨ø⟩
ɪ̀ hʲɛ́ː-ɯ́-kpɯ̲́ɯ́-mɯ̀-mà.
self pet-sg-dim-plAn-with
'Thus it was ON THAT TRAIL that she went with her pets.'

11.2.3 -uba 'probable'

-Ⓛ◯ɯ̲pa (-uba) 'probable' indicates that the referent of the phrase to which it is cliticized probably was (or did) what is asserted of it. Examples

[4] In 781 nɯ̀ˣpʰáɲɯ̀ 'get water' is derived from nɯˣpʰa 'water' by the addition of the verbalizer -Ⓛ◯nɯ '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. tì-ːpʲɛ́-ɯ̀pá (Diibyéubá.)
that-⟨SgM⟩-prob

b. tí-ːpʲɛ̀-ɾɛ́-hɯ̀ɯkʰó-ɯ̀pà (Dííbyeréjucóuba.)
that-⟨SgM⟩-only-focus-prob

a. 'It is probably he.'

b. 'It was probably ONLY he.'

(785) ¿Aca ú ɨjtsúcunú u pééiñe? Tsáháuba u pééityú(ne).

à-kʰà ɯ́ ɨˣtsʰɯ́-kʰɯ̀nɯ́-ʔ [ɯ̀ pʰɛ̰ːì]-ɲɛ̀
ques-doubt you think-sSt-⟨t⟩ you go-fut -⟨ø⟩

tsʰáʔá-ɯ̀pà ɯ̀ pʰɛ́ː-ì-tʲʰɯ́-(nɛ̀)
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.
hòtsʰéɛ̀-βá-ʔà:kʰáà-á ɯ́mɨ̀βá-ʔì 'Oh, they say that Joseph
Joseph-rpt-realize-rem flee-⟨t⟩ fled some time ago!'

(787) tì-ːpʲɛ́-ʔà:kʰà (¡Diibyéhaáca!) 'It is he.' (I realize
that-⟨SgM⟩-realize that he was the one.)

Otherwise the form is -ʔa, as in 788:

(788) ò:ʔíː-pʲɛ́-ʔà ɯ́mɨ̀βá-ʔ (¡Oohííbyéha úmɨvá!)
dog-⟨SgM⟩-realize escape-⟨t⟩
'The dog escaped.' (I realize that it was the dog that escaped.)

11.2.5 -ɾa ∼ -ɾo 'frustrative, contraexpectation'

-ɾa (-ra) ∼ -ɾo (-ro) 'frustrative, contraexpectation' indicates, contrary to what the hearer might think, that the referent of the host of -ɾa is prop-

[5] -ʔaːkʰa ∼ -ʔa, here glossed as 'realize', might be more technically glossed 'mirative'.

erly identified as the one of whom the sentence is predicated.[6] Examples follow:

(789) Diibyéjúcoóro
tì-ːpʲé-hʊ́kʰòː-ɾò ‘But it is HE (although it does not
that-⟨SgM⟩-focus-frs appear to be).’

(790) Ɨ́hnáhó chémeébe. Ároobe wákímyeítyéhi.
ɨ́ʔnáʔóʔ tʃʰémɛ̀-ːpɛ̀ á-ɾò-ːpɛ̀ kpákʰímʲɛ̀í-tʲʰé-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?
à-kʰà ʊ́ máˣtʃʰò-ó-ʔì ‘Are you sure you will eat it?’
thm-affirm you eat-fut-⟨t⟩

(792) ó-kʰà ó máˣtʃʰò-ó-ʔì (Óca ó májchoóhi.) ‘Yes, I will eat it.’
I-affirm I eat-fut-⟨t⟩

(793) Dihñétúcá oke daácu.
tiʔ-ɲé-tʰʊ́-kʰá ò-kʰɛ̀ t-àːkʰʊ̀ ‘Give me something
your-⟨ø⟩-sou-affirm I-objAn youImp-give that is really yours.’

(794) Óréiikyéca ó májchoóhi.
ó-ɾɛ́-ìːkʲʰɛ́-kʰà ó máˣtʃʰò-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(ha) (-haja ∼ -ha) ‘challenge veracity, verify’ occurs only in questions.[7] It challenges the hearer to demonstrate the veracity of a previous claim.

[6] Although -ɾa ∼ -ɾo ‘frustrative, contraexpectation’ is treated in this section, we withhold judgement as to whether it is, strictly speaking, a *clitic* or a *suffix*. Note that in example 789 it follows -ːpʲé-hʊ́kʰòː, suggesting that it is a clitic. In the second clause of example 790, however, it precedes -ːpɛ̀ ⟨SgM⟩, suggesting that -ɾa ∼ -ɾo is a suffix.

[7] The final syllable of -ʔa(ha) may be cognate with -ˣ ‘vocative’ discussed in section 10.9.

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!"

(795)
mú-ʔtsʰí-ʔàhà (¿Múhtsíhaja?)
WH-⟨place⟩-verify
kʰíá-ʔàhà (¿Kíáhaja?)
where-verify
} 'Where?! (incredulous)'

If someone says (pointing to a group) "He did it." someone who cannot identify the referent could respond with 796:

(796) kʰà-ːpʲé-ʔàhà (¿Caabyéhaja?) 'Which one?'
which-⟨SgM⟩-verify

In response to something incredible one can respond with 797:

(797) mɯ̀-ʔtú-ɾá-ʔàhà (¡Muhdúráhaja!) 'How could that be!'
WH-⟨like⟩-frs-verify

Other examples:

(798) mɯ̀-ːpá-ʔàhà (¿Muubáhaja?) 'Who could it be?'
WH-⟨SgM⟩-verify

(799) ¿Muubáha tsááhií?
mɯ̀-ːpá-ʔà tsʰáːːʔìː 'Who (SgM) could be coming?'
WH-⟨SgM⟩-verify come-⟨t⟩

11.2.8 -ami 'disgust'

-àmì 'disgust' expresses disgust. It is only used in rhetorical questions.

(800) ìː-ná-àmì (¿ɨ́ɨ́náami?) 'What? (when provoked
what-⟨ø⟩-disgust by something)'

(801) mú-ʔtú-àmì tʰèː-nɛ̀ (¡¿Múhdúami teéne?!) 'How can
WH-⟨like⟩-disgust that-⟨ø⟩ that be!'

(802) ¡ɨ́veekíami ehdu méénuúbe!
íβèː-kʰí-àmì è-ʔtɯ̀ méːnɯ̀-ːpɛ̀ 'What did he do
what-pur-disgust that-⟨like⟩ do-⟨SgM⟩ THAT for?!'

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-ʔtɛ̀ ó máˣʧʰò-ó-ʔì (Óhde ó májchoóhi.) ‘I can eat it.’
I-able I eat-fut-⟨t⟩

(804) Óréhdéiikyéca ó méénuúhi.
ó-ɾɛ́-ʔtɛ́-ìːkʲʰɛ́-kʰà ó mɛ́ːnɯ̀ɪ-ɯ́ɪ-ʔì ‘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 dipye.
ànɛ́-ʔtɛ̀ kpàːkʰà tì-pʲʰɛ̀ ‘O.K., then,
concede-able permit-affirm youImp-go you may go.’

11.2.10 -mei ‘pity’

-mɛi (-mei) ‘pity’ indicates compassion or pity. For example:

(806) tí-ːpʲɛ̀-mɛ́ì (dííbyeméi) ‘poor thing (SgM)!’
that-⟨SgM⟩-pity

(807) Tsɬɬméneméi áákityé íyé íjcyaábe.
tsʰíːmɛ́nɛ̀-mɛ́ì áːkʰìtʲʰɛ́-ʔ Ⓐ [í-jɛ́ ⁽ˢ⁾ìˣkʲʰà]-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 dsɬɬneébe.
tìː-tʲʰɛ́-ˣtʰànɛ̀ tsíːnɛ̀-ːpɛ̀ ‘He ran leaving
that-⟨AnPl⟩-exclude run-⟨SgM⟩ them behind.’

(809) Áámye majchó ájyújtane.
áːmʲɛ̀ màˣʧʰó-ʔ áhʲɯ́-ˣtʰ̲ànɛ̀
she.prox eat-⟨t⟩ husband-exclude
‘This one (SgF) ate without including her husband.’

11.2.12 -véjɨu ‘similar to’

-βɛ́hɨ̀ù (-véjɨu) ‘similar to’ indicates similarity or likeness. For example:

(810) kpàʔárɔ́-βɛ́hɨ̀ù ò́ó (Waháróvéjɨu oó.) ‘I am like my mother.’
mother-similar I

11.2.13 The combination -i-ɾo ‘contrary’

The combination of -i ‘projected time’ and -ɾo ∼ -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-ːpʲé-ì-jò (¿Caabyéiyo?) ‘Which one (SgM)?’
which-⟨SgM⟩-PT-frs

Examples 812–817 run contrary to the expectation that the person or object in question would be present:

(812) kʰà:-tʲʰé-ì-jò (¿Caatyéiyo?) ‘Which ones (AnPl)?’
which-⟨AnPl⟩-PT-frs

(813) ɨ:-né-ì-jò (¿ɪ̈ɨnéiyo?) ‘Which one (In)?’
which-⟨ø⟩-PT-frs

(814) kʰɛ̀:-kpá-ì-jò (keewáiyo) ‘Which plank (table,
which-⟨slab⟩-PT-frs machete,…)?’

(815) tʰà⁷-ɲé-ì-jò (Tahñéiyo.) ‘I wish it were mine (but it isn’t).’
my-⟨ø⟩-PT-frs

(816) Wajpíiyo pééneé.
kpàˣpʰí-ì-jò pʰɛ̰̀:-nè: ‘A MAN should have gone
man-PT-frs go-⟨ø⟩ (not a woman or child).’

(817) Wajpi pééiyóne.
kpàˣpʰì pʰɛ̰̀:-ì-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 mìtʲʰá 'or', which to our knowledge are entirely interchangable. 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 májchóityúne?

à úɯ máˣʧʰò-ó-ʔ mìtʲʰá tsʰa̋ʔ ùɯ máˣʧʰó-ì-tʲʰɯ́-nɛ̀
y/n you eat-fut-⟨t⟩ or not you eat-fut-neg-⟨n⟩a
'Will you eat or not?'

(819) ¿A óma ú peéhi mityá ú cóévaáhi díñáállema?

à ó-mà úɯ pʰè-é-ʔì mìtʲʰá úɯ kʰóéβà-á-ʔì
y/n I-with you go-fut-⟨t⟩ or you stay-fut-⟨t⟩

tí Ⓖ ɲá:-ʧè-mà
your sib-⟨SgF⟩-with
'Will you go with me or stay with your sister?'

Examples 820 and 821 show that much of the second clause may be ellipsed:

(820) ¿A ú peéhi *amí tsáhaá*?

à ʉ́ɪ pʰè-é-ʔì , àmí tsʰa^{H}ʔàá 'Will you go or not?'
yʔn you go-fut-⟨t⟩ or not

(821) ¿A ú peéhi *mityá ááñ*uú?

à ʉ́ɪ pʰè-é-ʔì , mìtʲʰá á:nʉ̀ʉ́ɪ 'Will you go or will
yʔn 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]

ʉ́ɪˣ (új) ∼ hʉ̀ʔʉ́ɪ:: (juhúú) expresses surprise
ʧʰíˣ (chíj) ∼ ʧʰí:: (chíí) expresses surprise or admiration
ɲó:ò: (ñóóoo) 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:

ɛ́hɛ̀ (éje) calls attention to look at something (like English *'Look!'*)
áhʉ̀ (*á*ju) calls attention to receive something given (like English *'Here! Take it!'*)
ááˣ (*áa*j) answers a call or indicates a question (like English *'Yes, what do you want?'*)
hʉ̀ʉ́hʉ̀ˣ (juújuj) ∼ hʉ̀ʉ́ɪ (juú) ∼ ʉ̀ʉ́ɪ (uú) indicates agreement (like English *OK.*)
màáʔʉ̀ʉ́ˣ (ma*á*huúj) indicates that one does not know (like English *'I don't know!'*)
hʉ̀:ʉ̀ (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(:) (*a*) 'yes/no' is used to ask questions that can be answered with 'yes' or 'no'.

(822) à ú́ pʰɛ̀-é-ʔì (¿A ú peéhi?) 'Are you going?'
y/n you go-fut-⟨t⟩

a-kʰa (*aca*) (y/n-doubt *aca*) is used to ask regarding something that the speaker heard, asking for confirmation and simultaneusly indicating disapproval or incredulity, as in 823. (See also example 785, page 313.)

(823) ¿A*ca* ú peéhi?
à-kʰà ú́ pʰɛ̀-é-ʔì 'You are going?!
y/n-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) ¿A*va* ú peéhi?
à-βà ú́ pʰɛ̀-é-ʔì 'Is it true (as someone told me)
y/n-rpt you go-fut-⟨t⟩ that you will go?'

(825) ¿A*cává* ú peéhi?
à-kʰá-βá ú́ pʰɛ̀-é-ʔì 'Has somebody said
y/n-doubt-rpt you go-fut-⟨t⟩ you are going.'

pòʔ[2] (bo) 'well'; see example 828.

kʰána (*cána*) ∼ kʰa *ca* requests or grants permission to do something.

(826) C*ána* uke ó úúbállej.
kʰánà ù̀-kʰɛ̀ ó ú́ːpátʃɛ̀-ˣ 'Allow me to tell you.'
permit you-objAn I tell-voc

(827) a. C*ána* né cóóvaíñú úmɨhétu u tsáábeé.
b. Cóóvaíñú *ca* úmɨhétu u tsáábeé.
{ a. kʰánà nɛ́ʔ(ì) kʰóː-βà-íɲú́
permit implore firewood-have-do.go
b. kʰóː-βà-íɲú́ kʰà
firewood-have-do.go permit }
[ú́mìʔɛ́-tʰù̀ ù̀$_i$ tsʰá]-ːpɛ̀ɛ́$_i$
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. kʰánà
b. kʰá
permit
pòʔ nɛ́ʔ(ì) tì-ʧʰà
well implore youImp-come
'I suggest that you come.'

mʉ̀ːɾá (muurá) indicates confirmation, as in 829:

(829) Ááné boone muurá peebe íiiñújɨvu.
á:-né Ⓖ pǒːnɛ̀ mʉ̀ːɾáʔ pʰɛ̀-ːpɛ̀ í ǐːɲʉ́-hì-βʉ̀
that-⟨ø⟩ after confirm go-⟨SgM⟩ self dirt-⟨disk⟩-goal
'Afterwards he went to his country.'

nɛ́ʔ (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 áβɨˣ imitates the sound of a tree's leaves moving. (By virtue of not being reduplicated, this indicates a single action.)

(831) Daalli ákityé 'ávɨj'.
tà:ʧì á:kʰìtʲʰɛ́-ʔì áβɨˣ
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. 'Allíhállí' ihjyúvaábe.
b. 'Allíhállí' néébeé.
c. 'Allíhállí' tsíñáávéébe.

àʧíʔ-átʃí (lie-lie)
a. ìʔʰʲúβà-ːpɛ̀ 'He speaks lying.'
speak-⟨SgM⟩
b. né-ːpɛ̀ɛ́ 'He is a liar.'
say-⟨SgM⟩
c. tsʰíɲá-ːβɛ̀-ːpɛ̀ 'He has become a liar.'
turnout-sIn-⟨SgM⟩

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, àkʲʰɛ́ʔ-ákʲʰɛ̀ refers to the movement of a child in its crib when it does not sleep well:

(833) Aabye tsɨɨmene 'akyéhákyéré' cuwáhi.
à-ːpʲɛ̀ tsʰɨ́ːmɛ̀nɛ̀ àkʲʰɛ́ʔ-ákʲʰɛ́-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 (camácáma) 'doing one thing after another'
b. kʰàtʃú-kʰátʃù (callúcállu) 'digging up the ground'
c. kʰàɲáʔ-kʰáɲà (cañáhcáña) 'crawling'
d. kʰɯ̀ní-kʰɯ́nì (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., ɨˀtsʰɯtʰɯ 'strong' is derived from ɨˀtsʰɯ '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-tʲʰɯ́ tì-ːpʲɛ̀ 'He is bad.'
good-neg that-⟨SgM⟩

b. ímì-tʲʰɯ́-né mɛ́ːnɯ̀-tí-(ɲɛ̀) 'Do not do bad things.'
good-neg-⟨ø⟩ do-neg-⟨n⟩

(836) Ímyétú teéne.
ímʲɛ́-tʰɯ́ tʰɛ̀-ːnɛ̀ '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 -Ⓛtʰɯ-nɛ (-tune) 'negative-⟨n⟩' or simply -Ⓛtʰɯ. (-tu). We will first discuss cases with preverbal subjects and then those with postverbal subjects.

With preverbal subjects, tsʰa̋ʔ(a) 'not' is added to the beginning of the clause, as in 837–840:

(837) Tsá dibye péétune.
tsʰa̋ʔ tì-pʲɛ̀ pʰɛ́ː-tʰɯ̀ɯ-nɛ̀ 'He did not go.'
not that-⟨SgM⟩ go-neg-⟨n⟩

(838) Tsá dibye májchotú(ne).
tsʰa̋ʔ tì-pʲɛ̀ máˣʧʰò-tʰɯ́ɯ-(nɛ̀) 'He has not eaten.'
not that-⟨SgM⟩ eat-neg-⟨n⟩

(839) tsʰa̋ʔ ò áːʔɨ́βɛ̀-tʰɯ́ɯ (Tsá o ááhɬvetú.) 'I did not go home.'
not I go.home-neg

(840) Tsá dibye májchóityú(ne).
tsʰa̋ʔ tì-pʲɛ̀ máˣʧʰó-ì-tʲʰɯ́ɯ-(nɛ̀) 'He will not eat.'
not that-⟨SgM⟩ eat-fut-neg-⟨n⟩

Three features of negatives suggest that negative clauses are structurally subordinate clauses, complements to a higher predicate tsʰa̋ʔa '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) [$_{V}$ tsʰa̋ʔ] [$_{NP}$ [$_{S}$ [$_{NP}$ ò] a̋ːʔɨ́βɛ̀-tʰɯ̀ɯ] -nɛ̀]
not I go.home-neg -⟨ø⟩

Further examples with preverbal subjects:

(842) Tsá o chéénetú(ne).
tsʰa̋ʔ ò ʧʰɛ́ːnɛ̀-tʰɯ́ɯ-(nɛ̀) 'I did not eat (fruit).'
not I eat-neg-⟨n⟩

(843) Tsá o áwácunútu(ne).
tsʰ^{H}a? ò ákpákʰùnú-tʰù-(nè) 'I did not yawn.'
not I yawn-neg-⟨n⟩

(844) Tsá o áájɨvetétú(ne).
tsʰ^{H}a? ò á:hɨβè-tʰé-tʰú-(nè) 'I did not go to eat.'
not I eat-go.do-neg-⟨n⟩

tsʰ^{H}a?(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 tsʰá?áì (not-PT) denies that the event has already happened:[1]

(845) Tsáhái dibye tsáátune.
tsʰ^{H}a?á-ì [tì-pʲè tsʰ^{S}a:-tʰù]-nè 'He has not yet come.'
not-PT that-⟨SgM⟩ come-neg -⟨n⟩

With postverbal subjects, there is no overt negative word (like tsʰ^{H}a?(a) 'not' in the previous examples) and the classifier subject occupies the place of -nɛ ⟨ø⟩. 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, -Ⓛ:pè ⟨SgM⟩ delinks the low tone of -Ⓛtʰɯ 'neg' in order to place its low tone on -tʰù.

(846) máˣʧʰó-tʰù-:pè (Májchótuúbe.) 'He has not eaten (bread).'
eat-neg-⟨SgM⟩

(847) a. tó:-tʰù-:pè (dóótuúbe) 'He has not eaten (meat).'
b. á:?ɨβé-tʰù-:pè (ááhɨvétuúbe) 'He did not visit.'
c. máˣʧʰò-tʰú-mè (májchotúme) 'They have not eaten (bread).'

13.3 Contrastive negation with -jɨɨva 'deny'

-hɨ:(βa) (-jɨɨva) '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 -hɨ́:βa is used at the end of a sentence and -hɨ́: is used within a sentence. -hɨ:(βa) may be cliticized to verbs (13.3.1) or to nominals (13.3.2).

[1] This is consistent with the suggestion that tsʰa?a behaves like a complement-taking verb.

13.3.1 -jɬɬva with verbs

With verbs, -hiː(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: #Ⓗ…-Ⓛhiː(βa).

When someone is accused of doing something bad, he can emphatically deny this by saying:

(848) ò mɛ́ːnúɯ-ːpè-híːβà (O méénúúbejɬɬva.) 'I did NOT do it!'
H
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) [ò mɛ́ːnúɯ]-ːpè [V híːβà]
S
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; majchóllejɬɬva.
c. Tsáhái dille májchotúne.

a. à tsʰɯ́ːkʰà tí Ⓖ tʲʲʰá:pá màˣʧʰó-hɯ̀kʰóː
y/n already your wife eat-now

b. tsʰáʔá-ì ; máˣʧʰó-ʧè-híːβà
not-PT eat-⟨SgF⟩-deny

c. tsʰáʔá-ì tì-ʧè máˣʧʰò-tʰɯ́-nè
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:

(851) Taña*a*lle oomí ihjyávu. { a. Ímílléllejǂǂ / b. Tsá dille ímílletú } imájchone.

tʰa͡ G ɲà:-ʧɛ̀ ò:mí-ʔ ĩ͡ G ʔhʲá-βɯ̀
my sib-⟨SgF⟩ return-⟨t⟩ self house-GOAL

{ a. ímíʧé-ʧɛ̀-hí: want-⟨SgF⟩-deny / b. tsʰá tì-ʧɛ̀ not that-⟨SgF⟩ ímíʧɛ̀-tʰɯ́ want-neg } ì self máˣʧʰò-nɛ̀ eat-⟨n⟩
'My sister returned to her house. She did not want to eat.'

A further example is given in 852; see also example 1123, page 432.

(852) ¿Muhdú májchóóbejǂǂ ú peéhi?

mɯ̀-ʔtɯ́ maˢˣʧʰó-:pɛ̀-hí: ɯ́ pʰɛ̀-é-ʔì
WH-⟨like⟩ eat-⟨SgM⟩-deny you go-fut-⟨t⟩
'How is it that you are going without eating?'

13.3.2 -jǂǂv*a* with nominals

With pronouns, nouns or noun phrases -hɨ:βa (-jɨ:v*a*) 'deny' imposes a low tone on its hosts antepenult, while itself bearing high tone: -Ⓛ◯hɨ́:βa.

-Ⓛ◯hɨ́:βa 'deny' follows the constituent that is focally negated, as in the following conversational exchanges. (See also example 1122, page 432.)

(853) a. Áádií; díñahbéuba tsájucóó.
b. Tsáha*á*; diibyéjǂǂv*a*. Tsá dibye íhajchíí tsááityúne.

a. á:tìí ; tí Ⓖ ɲa͡ L-ʔpé-ɯ͡ Lpà tsʰá-hɯ̀kʰó:
that.one(distal) your sib-⟨SgM⟩-prob come-now-⟨t⟩

b. tsʰa͡ Hʔàá ; tì-:pʲé-hí:βà
not that-⟨SgM⟩-deny

tsʰa͡ Hʔ tì-pʲɛ̀ íʔàˣʧʰí: tsʰá:-ì-tʲʰɯ́-nɛ̀
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; diilléjɨɬva. Óóréjuco.

a. à-βà tí Ⓖ nàː-tʃè pʰè-é-ʔì ámɛ̀húɯ-βɯ̀
yʎn-rpt your sib-⟨SgM⟩ go-fut-⟨t⟩ downriver-goal

b. tsʰáʔàá ; tìː-tʃɛ́-híːβà . ó-ːɾɛ́-hɯ̀ɯkʰò
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; diibyéjɨɬíva. Díoohííbyére.

a. tí ó:ʔí-ːpʲɛ̀ tʰá Ⓖ kʰáɾákʰá-kʰè ʧìːʔánúɯ-ʔì
your dog-⟨SgM⟩ my chicken-objAn kill-⟨t⟩

b. tsʰáʔàá ; tìː-ːpʲé-híːβà . tí ó:ʔí-ːpʲé-ɾɛ̀
not that-⟨SgM⟩-deny your dog-⟨SgM⟩-only

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.

-Ⓛ(ʔ)ti 'prohibit' indicates that the action of the host verb should not be done, forming a PROHIBITION or NEGATIVE IMPERATIVE. -Ⓛʔti (-hdi) is used with monosyllabic verbs and -Ⓛti (-di) with polysyllabic ones. As with Ⓛtʰɯ 'neg', -ɲɛ ⟨n⟩ may follow -(ʔ)ti. These points are illustrated in the following examples:

(856) pʰè-ʔtí-(ɲè) (¡Pehdíñe! ∼ ¡Pehdí!) 'Don't go!'
go-prohibit-⟨n⟩

(857) mé:nɯ̀-tí-(ɲè) (¡Méénudíñe! ∼ ¡Méénudí!) 'Don't do it!'
do-prohibit-⟨n⟩

(858) a. Dohdíñe! ∼ Dohdí!
b. Májchodíñe ∼ Májchodí!
c. Tomájcodíñe! ∼ Tomájcodí!

a. tò-ˀtí-(ɲɛ̀) ‘Do not eat (meat)! (sg)’
b. máˣʧʰò-tí-(ɲɛ̀) ‘Do not eat (bread)! (sg)’
c. tʰòmáˣkʰò-tí-(ɲɛ̀) ‘Do not touch it! (sg)’

(859) Memájchodíñe! ∼ Memájchodí!
mɛ̀ máˣʧʰò-tí-(ɲɛ̀) ‘Do not eat (bread)! (pl)’
SAP eat-neg-⟨n⟩

Generally a prohibition will end ((…σ̀)σ́)σ̀-tí-(ɲɛ̀)#. However, the Ⓛ of -Ⓛ$^{(ʔ)}$ti may be blocked by another low tone, as in 860 with -Ⓛtʰɛ ‘go to do’:

(860) máˣʧʰò-tʰɛ́-tí-(ɲɛ̀) (¡Májchotédí(ñe)!) ‘Do not go to eat (bread)!’
eat-go.do-neg-⟨n⟩

13.5 Negation in subordinate clauses

Subordinate clauses are negated with -Ⓛtʰɯ ‘neg’ but they never have tsʰáʔ(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 májchótuube dsɬjɨvéhi.

tì-ːpʲɛ̀ Ⓐ [mâˣʧʰó-tʰɯ̀]-ːpɛ̀ tsɬhɨ̀βɛ́-ʔì
that-⟨SgM⟩ eat-neg -⟨SgM⟩ die-⟨t⟩
‘The one who did not eat died.’

(862) Diibye imájchótúneri dsɬjɨvéhi.

tì-ːpʲɛ̀[2] [ì mâˣʧʰó-tʰɯ́]-nɛ̀-ɾì tsɬhɨ̀βɛ́-ʔì
that-⟨SgM⟩ self eat-neg -⟨event⟩-oblIn die-⟨t⟩
‘Because he did not eat, he died.’

(863) Imájchótúneri dsɬjɨvéebe.

[ì mâˣʧʰó-tʰɯ́]-nɛ̀-ɾì tsɬhɨ́βɛ̀-ːpɛ̀
self eat-neg -⟨event⟩-oblIn die-⟨SgM⟩
‘Because he did not eat, he died.

[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$^{(ʔ)}$ […]-tʰʉ́(nɛ̀) has within its scope the main verb ímítʃɛ̀ 'I want', the object complement of which is extraposed:

(864) Tsá o ímílletú dibye pééneé.

tsʰa^{H}ʔ	ò ímítʃɛ̀-tʰʉ́	[tì-pʲɛ̀	pʰɛ̀ː^{S}]-nɛ̀é	'I don't want
not	I want-neg	that-⟨SgM⟩	go -⟨ø⟩	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.

(865) tí-tʲo-ː (¡Dídyoó!) ‘Eat (meat)!’
you-eat-emph

If the verb stem is polysyllabic and begins with a vowel, it is simply t- ‘you’:

(866) t-óːtʰɛ-ː (¡Dóóteé!)
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) _máˣʧʰo (Májcho.) ‘Eat!’ (singular, bread)
eat

plural subject: In all cases, the pronoun is mɛ ∼ ma ‘SAP’ (speech act participant):

(868) mé toːtʰè (¡Médoóte!) ‘Go eat (pl, meat)!’
SAP eat-go.do

(869) a. mé pʰɛ́é (¡Mépeé!) ‘Go! (pl)’

b. mé maˣʧʰò (¡Mémajcho!) ‘Eat! (pl, bread)’

c. {mé / má} aːpʉ́kʰʉ̀ ({¡Méaabúcu! / ¡Máaabúcu!}) ‘Hold up! (pl)’

d. {mé / má} ákʰʉ́ːβè ({¡Méacúúve! / ¡Máacúúve!}) ‘Sit down! (pl)’

e. mé ímipáˣʧʰò (¡Méímibájcho!) ‘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 Ⓛ if there are no more than three syllables. Otherwise the verb receives nonfinite tone; see section 14.1.1 for details.

14.1.1 Tone in imperatives

Imperative verbs bear the nonfinite low tone, represented below with ɪ (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]

[2]Example 781, page 311, is exceptional in having a low tone on the initial syllable; for discussion see footnote 4, page 311.

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":

$$[_{\text{pronoun}}\overset{H}{\sigma}] + [_{\text{nonfinite verb stem}}\ \ldots\overset{N}{\sigma}(\sigma(\sigma))].$$

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 ma^{x}ʧ^{h}o '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 regresssive 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).

IMPERATIVE	NONFINITE
$\overset{I}{\sigma}\sigma$	$\overset{N}{\sigma}$
$\overset{I}{\sigma}\sigma\sigma$	$\overset{N}{\sigma}\sigma$
$\overset{I}{\sigma}\sigma\sigma\sigma$	$\overset{N}{\sigma}\sigma\sigma$
$(\ldots\sigma)\overset{I}{\sigma}\sigma\sigma\sigma$	$(\ldots\sigma)\overset{N}{\sigma}\sigma\sigma\sigma$

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-pʲʰɛ́-: (Dípyeé.) 'Go!'
youImp-go-emph

Trisyllabic:

(871) t-á:puᵻ̀kʰùᵿ (Dáábucu!) 'Endure!'
youImp-endure

(872) mɛ́ maˀˣʧʰò (Mémajcho!) 'Eat (pl)!'
SAP eat

Example 873 is trisyllabic, although it ends up with four syllables due to the application of PLTS:

(873) t-ákʰuᵿ-:βɛ̀ (Dácuúve!) 'Sit down!'
youImp-sit-sIn

The verb stem may include a derivational suffix:

(874) a. t-ómaˀ-ˣkʰò (Dómajco!) 'Touch! (sg)'
youImp-touch-implore

b. máˣʧʰóˀ-tʰɛ̀ (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-ímiˀpáˣʧʰò (Dímibájcho!) 'Fix it! (sg)'

b. t-ákpaˀkʰúnùᵿ (Dáwacúnu!) 'Yawn! (sg)'

c. kʰáβúiˀʔʰʲákʰò (Cávúihjyáco!) 'Push! (sg)'

(876) mɛ́ ímiˀpáˣʧʰò (Méímibájcho!) '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-ímiˀpáˣʧʰò (Dímibájcho!) 'Fix it! (sg)'

t-ímípaˀˣʧʰó-tsʰò (Dímíbajchótso!) 'Cause it to be fixed!'

t-ímípáˣʧʰóˀ-tsʰó-tʰɛ̀ (Dímíbájchotsóte!) 'Go cause it to be fixed!'

The imperative tone delinks the tones imposed by suffixes. For example, it delinks the Ⓛ of -Ⓛtʰɛ 'go to do' in 878 and 879:

(878) t-ímípʰaˀˣʧʰó-tʰɛ̀ (dímípajchóte) 'Go fix it! (sg)'

(879) mɛ́ maˀˣʧʰó-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: mɛ̀ [G] má^{x}tʃ^{h}ò (memájcho) ‘our (SAP) food’
SAP food
IMP: mɛ́ ma^{x}tʃ^{h}ò [I] (Mémajcho.) ‘Eat (pl)!’
SAP eat

(881) GEN: mɛ́ Ⓖ ímipá^{x}tʃ^{h}ò [N] (meímibájcho) ‘our fixing/job’
IMP: mɛ́ ímipá^{x}tʃ^{h}ò [I] (¡Méímibájcho!) ‘Fix it (pl)!’

(882) GEN: mɛ̀ [G] pá^{x}ts^{h}ò (mebájtso) ‘our (SAP) planting’
SAP planting
IMP: mɛ́ pa^{x}ts^{h}ò [I] (Mébajtso.) ‘Plant! (pl)’
SAP plant

(883) GEN: {mɛ̀ [G], mà [G]} átò {meádo, maádo} ‘our/your (pl) drink’
SAP drink
IMP: {mɛ́, má} átò [I] {Méado!, Maado!} ‘Drink (pl)!’
SAP drink

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: tì [G] átò (diádo) ‘your (sg) drink’
IMP: t-átó [I] (¡Dádoó!) ‘Drink (sg)!’

(885) GEN: tì [G] t^{j}ò (didyo) ‘your (sg) meat’
IMP: tí t^{j}ó [I] (¡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]

IMPERATIVE		NONIMPERATIVE		GLOSS
t-á˺ʔ̲kpa˺:	(dáhwaá)	àkpà	(awa)	'diet'
t-í˺ʔ̲tʃo˺:	(díhlloó)	ìtʃò	(illo)	'chop'
t-á˺ʔ̲ɲɯ̀˺:	(dáhñuú)	àɲɯ̀	(añu)	'shoot'

2. Some roots that begin with a syllable made heavy by vowel length (/V:/) replace this with a glottal stop in the singular imperative. Verbs that show this behavior follow:[4]

IMPERATIVE		NONIMPERATIVE		GLOSS
t-á˺ʔ̲mɯ̀˺:	(dáhmuú)	à:̲mɯ̀	(aámu)	'throw and hit'
t-é˺ʔ̲βé˺:	(déhveé)	è:̲βè	(eéve)	'read'
t-ɨ́˺ʔ̲nɛ̀˺	(dɨ́hneé)	ɨ̀:̲nè	(ɨɨ́ne)	'move over'
t-ɨ́˺ʔ̲tʰɛ̀˺	(dɨ́hteé)	ɨ̀:̲tʰè	(ɨɨ́te)	'look'
t-ó˺ʔ̲mì˺	(dóhmií)	ò:̲mì	(oómi)	'return'
t-ɯ́˺ʔ̲hɛ́˺tʰè	(dúhjete)	ɯ̀:̲hétʰè	(uujéte)	'arrive'

Consider also the alternation between the singular and plural imperatives in 886:

(886) a. t-ɯ́ʔ̲hɛ́˺-tʰè (¡Dúhjete!) 'Go (sg) see.'
youImp-see-go.do

b. mé ɯ̀˺:̲hé-tʰè (¡Méuujéte!) 'Go (pl) see.'
SAP see-go.do

3. Some verbs that begin with /Vˣ/ in the nonimperative make this into a long vowel (/V:/) in the singular imperative. Verbs that behave this way are:

IMPERATIVE		NONIMPERATIVE		GLOSS
t-á:̲kʰɯ̀˺:	(dáácuú)	àˣ̲kʰɯ̀	(ajcu)	'give'
t-í:̲kʲʰà˺	(díícya)	ìˣ̲kʲʰà	(ijcya)	'be'
t-ú:̲kʰɯ̀˺	(dúúcuú)	ɯ̀ˣ̲kʰɯ̀	(ujcu)	'get'

For example, note the alternation in 887:

(887) a. ò-kʰè má á˺ˣ̲kʰɯ̀ (¡Oke máajcu!) 'Give (pl) it to me!'
I-objAn SAP give

b. ò-kʰè t-à:̲kʰɯ̀˺ (¡Oke daácu!) 'Give (sg) it to me!'
I-objAn youImp-give

[3]Note that the first two imperatives have split final vowels due to FLTS.
[4]PLTS has applied in the penult of many of the nonimperative forms.

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 mɛ.)

Table 14.1 Singular imperatives: changes in the initial syllable

$V^{ʔ}$ ⇳ V	$V^{ʔ}$ ⇳ V:	V: ⇳ V^{x}
t-á^{ʔ}kpàá ‘diet!’ àkpà	t-á^{ʔ}k^{h}ìt^{jh}è ‘fall down!’ à:k^{h}ít^{jh}è	t-á:k^{h}ùʉ́ ‘give it!’ à^{x}k^{h}ùʉ
t-í^{ʔ}ʧòó ‘cut it down!’ ìʧò	t-á^{ʔ}mùʉ́ ‘hit it!’ àámùʉ	t-ì:k^{jh}àá ‘stay!’ ì^{x}k^{jh}à
t-á^{ʔ}ɲùʉ́ ‘shoot!’ àɲùʉ	t-í^{ʔ}nèɛ́ ‘move over!’ ɨ́ínè	t-ú:k^{h}ùʉ́ ‘get it!’ ùʉ^{x}k^{h}ùʉ

Many verbs undergo neither change:[6]

1. Some have a long vowel in both the singular imperative and the nonimperative: t-é:pùʉ from è:pùʉ, t-á:pàt^{h}éts^{h}ò from á:pàt^{h}éts^{h}ò, t-á:pò: from à:pò, t-á:pùʉk^{h}ùʉ from à:púʉk^{h}ùʉ, t-á:p^{j}ùʉk^{h}ùʉ from à:p^{j}úʉk^{h}ùʉ, t-á:ʔìβè, from à:ʔíβè, t-í:k^{h}ùʉ: from ì:k^{h}ùʉ, t-ú:pàʧè from ùʉ:pátʃè.
2. Some verbs have a glottal stop closing the first syllable in both the singular imperative and the nonimperative: t-í^{ʔ}tènùʉ from ì^{ʔ}ténùʉ, t-í^{ʔ}t^{h}ètsʰò from ì^{ʔ}t^{h}étsʰò, t-í^{ʔ}t^{h}ùʉ: from ì^{ʔ}t^{h}ùʉ, t-ɨ^{ʔ}βɛ̀^{x}ts^{h}ò from ì^{ʔ}βɛ́^{x}ts^{h}ò, t-ɨ^{ʔ}βèt^{h}è from ì^{ʔ}βét^{h}è, t-á^{ʔ}tòts^{h}ò from à^{ʔ}tóts^{h}ò, t-á^{ʔ}tò: from à^{ʔ}tò, t-ít^{j}ò: from tò:, t-í^{ʔ}pùʉk^{h}ùʉ from ì^{ʔ}púʉk^{h}ùʉ, t-í^{ʔ}h^{j}ùʉβà from ì^{ʔ}h^{j}úʉβà, t-í^{ʔ}h^{j}ùʉβáts^{h}ò from í^{ʔ}h^{j}ùʉβáts^{h}ò, t-ó^{ʔ}pàɲùʉ from ò^{ʔ}páɲùʉ, t-ú^{ʔ}pà: from ùʉ^{ʔ}pà.
3. In some verbs, preaspiration closes the first syllable in both the singular imperative and the nonimperative: t-ɨ́^{x}ts^{h}àmɛ́ì from ɨ́^{x}ts^{h}àmɛ́ì, t-ɨ́^{x}ts^{h}ùʉk^{h}úmùʉ from ɨ́^{x}ts^{h}ùʉk^{h}úmùʉ, t-á^{x}k^{h}à: from à^{x}k^{h}à, t-á^{x}ʧ^{h}ùʉk^{h}úmùʉ from à^{x}ʧ^{h}úʉk^{h}ùʉmùʉ, t-á^{x}k^{jh}è: from à^{x}k^{jh}è, t-í^{x}ʧ^{h}ìβ^{j}è from ì^{x}ʧ^{h}íβ^{j}è, t-í^{x}ʧ^{h}ìβ^{j}étsʰò from í^{x}ʧ^{h}ìβ^{j}étsʰò, t-í^{x}ʧ^{h}ò: from ì^{x}ʧ^{h}ò.
4. Some verbs have a short vowel in both the singular imperative and the nonimperative: t-ɨ́páts^{h}ùʔhák^{h}ò from ɨ́páts^{h}ùʔhák^{h}ò, t-ɨ́k^{h}ùpáʔrà

[5]Other cases of the alternation between $V^{ʔ}$ and V: are as follows:

imperative	t-ɨ́^{ʔ}nètsʰò ‘move it over’	t-ɨ́^{ʔ}t^{h}èɛ́ ‘look!’	t-ó^{ʔ}mìí ‘return!’	t-ó^{ʔ}mìʧ^{h}ò ‘return it!’	t-ú^{ʔ}hèt^{h}è ‘go see!’
non-imperative	ì:nétsʰò ‘make move over’	ɨ́t^{h}è ‘look’	òómì ‘return’	ò:mítʃ^{h}ò ‘make return’	ùʉ:hét^{h}è ‘go see’

[6]For the meanings of the verbs below, see (Thiesen & Thiesen 1998).

from ɨkʰʉ̀páʔɾà, t-ɨ́tà:tsʰótʃɛ̀ from ɨ́tà:tsʰótʃɛ̀, t-ɨ́tà:tsʰóβɛ̀ from ɨ́tà:tsʰóβɛ̀, t-ɨ́kpàˣkʰárò from ɨ́kpàˣkʰárò, t-ɨ́kpà:βɛ̀ from ɨ̀kpá:βɛ̀, t-ɛ́kʰɛ̀:βɛ̀ from ɛ̀kʰɛ́:βɛ̀, t-ákʰʉ̀:βɛ̀ from àkʰʉ́:βɛ̀, t-átò: from àtò, t-ámàpʉ́kʰʉ̀ from ámàpʉ́kʰʉ̀, t-áβò:βɛ̀ from àβó:βɛ̀, t-áβʉ̀ʔkʰʉ̀ from àβʉ́ʔkʰʉ̀, t-áβʲɛ́ˣtsʰò from àβʲɛ́ˣtsʰò, t-áβʲɛ̀hʉ́ˣtsʰò from áβʲɛ̀hʉ́ˣtsʰò, t-ákpà: from àkpà, t-áɲʉ̀ˣkʰʉ̀ from àɲʉ́ˣkʰʉ̀, t-íhʲòkʰʉ́:βɛ̀ from íhʲòkʰʉ́:βɛ̀, t-ítʃà:jò from ítʃà:jò, t-ítʃòˣkʰò from ìtʃóˣkʰò, t-ímìpá:βʲɛ̀ from ímìpá:βʲɛ̀, t-ímìpáˣtʃʰò from ímìpáˣtʃʰò, t-ímìhʲʉ́:βɛ̀ from ímìhʲʉ́:βɛ̀, t-ímìβʲɛ̀ from ìmíβʲɛ̀, t-ʉ́àkʰò from ʉ̀ákʰò, t-ʉ́àjò from ʉ̀ájò, t-ʉ́kʰà:βɛ̀ from ʉ̀kʰá:βɛ̀, tí-ʉ̀: from ʉ̀:.

14.2 Modifying imperatives

14.2.1 Emphatic imperatives

An imperative can be made more emphatic by the addition of -Ⓛ:. Compare the unmarked and emphatic imperatives in 888:

(888) a. máˣtʃʰó$_{\text{I}}$ (Májcho.) ‘Eat! (sg, nonemphatic)’

b. máˣtʃʰó$_{\text{I}}$-: (Májchoó!) ‘Eat! (sg, emphatic)’
eat-emph

The addition of -Ⓛ: creates the conditions for applying FLTS, wherby the final vowel “splits.” This is reflected in the orthographic forms of 888b as well as 889a and b:

(889) a. t-ímipáˣtʃʰò-$_{\text{I}}$: (Dímibájchoó!) ‘Fix it! (emphatic)’
you-fix-emph

b. t-ímípaˣtʃʰó$_{\text{I}}$-tʰɛ̀-: (Dímíbajchótɛé!) ‘Go fix it! (emphatic)’
you-fix-go.do-emph

Compare 890a and b:

(890) a. máˣtʃʰò-tʰɛ́-ʔì (májchotéhi) ‘goes to eat’

b. máˣtʃʰó-tʰɛ́$_{\text{L}}$: (¡Májchóteé!) 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: -Ⓛμ. The tone delinks the low tone of the preceding syllable and the conditions for FLTS are met. The tone derivation of máˣtʃʰótʰɛ̀ɛ́ ‘Go to eat!’ is given in figure 14.2:

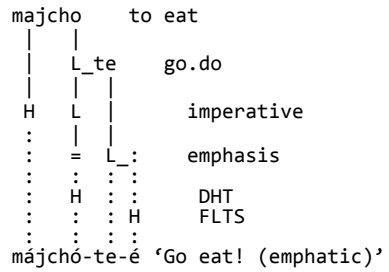


Figure 14.2 TD: *májchóteé*

14.2.2 -co 'implore' and -juj 'quick' with imperatives

The suffixes -k^{h}o (–co) 'implore' and -hɯ^{x} (–juj) 'quick' can be added to an imperative verb. They occur only on imperatives and they may not co-occur.

The suffix -k^{h}o '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) má^{x}ʧ^{h}$\overset{I}{o}$-k^{h}ò (¡M*á*jchoco!) 'Please eat!'
eat-implore

(892) p^{h}é:-k^{h}$\overset{I}{o}$-: (¡Péécoó!) 'Go immediately!'
go-implore-emph

The suffix -Ⓛhɯ-^{x} (–juj) '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 -Ⓛhɯ-^{x} '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-ímípa$^{\overset{N}{x}}$ʧ^{h}ó-t^{h}è-hɯ̀-^{x} (¡Dímíb*a*jchótejuj!) 'Go (sg) fix it!'
you-fix-go.do-quick-voc

b. t-$\overset{N}{o}$má^{x}k^{h}ò-hɯ̀-^{x} (¡Dom*á*jcojuj!) 'Touch (sg) it!'
you-touch-quick-voc

c. ma$^{\overset{N}{x}}$ʧ^{h}ó-βà-hɯ̀-^{x} (m*a*jchóv*a*juj) 'Come (sg) to eat now!'
eat-come.do-quick-voc

-Ⓛhɯ-^{x} imposes a low tone on its host's final syllable *if possible*; it does not delink the nonfinite tone, as illustrated in 894:

(894) ma̋ˣʧʰó-hɯ̀ɯ-ˣ (¡Majchójuj!) ‘Eat (sg) quickly!’
eat-quick-voc

In 895, -Ⓛ◯βa ‘come to do’ makes the stem trisyllabic. Its Ⓛ docks on the antepenult, in this case the root’s first syllable, coinciding with nonfinite low tone. Finally, -Ⓛhɯ-ˣ docks its Ⓛ on its host’s final syllable:

(895) mɛ́ ma̋ˣʧʰó-βà-hɯ̀ɯ-ˣ (¡Mémajchóvajuj!) ‘Come (pl) eat
SAP eat-come.do-quick-voc (bread) now!’

In 896a and b, “quick” modifies “going” rather than “eating”.

(896) a. ma̋ˣʧʰó-tʰɛ̀-hɯ̀ɯ-ˣ (¡Majchótejuj!) ‘Go (sg) quickly to eat!’
eat-go.do-quick-voc
b. tőː-tʰɛ́-hɯ̀ɯ-ˣ (¡Dootéjuj!) ‘Go (sg) quickly
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 Ⓛ of -Ⓛhɯ-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) mɛ̋ tóː-tʰɛ̀-hɯ̀ɯ-ˣ (¡Medóótejuj!) ‘Go (pl) quickly
SAP eat-go.do-quick to eat (meat)!

14.2.3 The adverb ɨ́ɨ́cúi ‘quickly; hurry’

The adverb ɨ́ːkʰɯ́ùì (ɨ́ɨ́cúi) ‘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 ɨ́ɨ́cúií.
máˣʧʰo̍-tʰɛ̀ ɨ́ːkʰɯ́ùì-ː ‘Go quickly to eat.’
eat-go.do quickly-emph

(899) Mémajchóté ɨ́ɨ́cúií.
mɛ́ ma̍ˣʧʰó-tʰɛ́ ɨ́ːkʰɯ́ùì-ː ‘Go quickly to eat.’
SAP eat-go.do quickly-emph

Or ɨ́ːkʰɯ́ùì ‘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) ɨ́ːkʰɯ́ùì ma̋ˣʧʰò (¡ɨ́́ɨ́cúi majcho!) ‘Hurry up, eat!’
hurry eat

(901) ¡ɬɬcúi didyo!

ɨ́:kʰʊ́ʊ̀ tì-tʲ^{N}ó ‘Hurry up, eat (meat)!’
hurry youImp-eat.meat

(902) ɬɬcúi dipye dihjyávu.

ɨ́:kʰʊ́ʊ̀ tì-pʲʰ^{N}ɛ́ tɪ^{G}ʔ hʲá-βʊ̀ʊ
hurry youImp-go your house-goal
‘Quickly, go to your house.’

Note further that ^{H}ɨ:kʰ^{H}ʊ̀ʊi ‘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 ɨ́:kʰʊ́ʊ̀ ‘hurry’ to be a verb that takes a nonfinite complement. To see the contrast between the simple imperative and ɨ́:kʰʊ́ʊ̀ 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 I), and then the nonfinite verb that would follow ɨ́:kʰʊ́ʊ̀. 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} máˣʧʰò-hʊ̀ʊ-ˣ (¡Memájchojuj!) ‘Eat (sg, bread) now!’
SAP eat-quick-voc

Table 14.2 Simple imperatives and complements to ɨ́ɨ́cúi ‘hurry’

	SINGULAR		PLURAL	
go!	tí-p^{jh}ɛ̀ː	dípyeé	mé p^{h}ɛ̀ː	mépeé
ɨ́ːk^{h}ʊ́ì	tì-p^{jh}ɛ̀	dipye	mɛ̀ p^{h}ɛ̀	mepe
eat (fruit)!	ʧɛ́ːnɛ̀ː	llééneé	mé ʧɛ̀ːnɛ̀	mélleéne
ɨ́ːk^{h}ʊ́ì	ʧɛ̀ːnɛ̀	lleéne	mɛ̀ ʧɛ́ːnɛ̀	melléene
eat(bread)!	má^{x}ʧ^{h}òː	májchoó	mé ma^{x}ʧ^{h}ò	mémajcho
ɨ́ːk^{h}ʊ́ì	mà^{x}ʧ^{h}ò	majcho	mɛ̀ má^{x}ʧ^{h}ò	memájcho
eat (meat)!	tí-t^{j}òː	dídyoó	mé tòː	médoó
ɨ́ːk^{h}ʊ́ì	tì-t^{j}ò	didyo	mɛ̀ tò	medo
swallow!	mɛ́^{ʔ}tòː	méhdoó	mé mɛ̀^{ʔ}tò	mémehdo
ɨ́ːk^{h}ʊ́ì	mɛ̀^{ʔ}tò	mehdo	mɛ̀ mɛ́^{ʔ}tò	memémehdo
touch!	tómà^{x}k^{h}ò	dómajco	mé tomá^{x}k^{h}ò	médomájco
ɨ́ːk^{h}ʊ́ì	tòmá^{x}k^{h}ò	domájco	mé tomá^{x}k^{h}ò	médomájco
stop doing!	tɨ́^{ʔ}βɛ́t^{h}è	dɨ́hvete	mé ɨ́^{ʔ}βɛ́t^{h}è	méɨ́hvéte
ɨ́ːk^{h}ʊ́ì	t-ɨ̀^{ʔ}βɛ́t^{h}è	dɨ̀hvéte	mé ɨ̀^{ʔ}βɛ́t^{h}è	méɨ̀hvéte
fix!	t-ímɪpá^{x}ʧ^{h}ò	dímibájcho	mé ímɪpá^{x}ʧ^{h}ò	méímibájcho
ɨ́ːk^{h}ʊ́ì	t-ímɪpá^{x}ʧ^{h}ò	dímibájcho	mè ímɪpá^{x}ʧ^{h}ò	meímibájcho
throw out!	kpáːkòː	wáágoo	mé kpàːkóò	méwaagóo
ɨ́ːk^{h}ʊ́ì	kpàːkóò	waagóo	mé kpàːkóò	méwaagóo
yawn![a]	t-ákpak^{h}ʊ́nʊ̀	dáwacúnu	mé ǎkpák^{h}ʊ̄nʊ̀	méawácunu
ɨ́ːk^{h}ʊ́ì	t-ǎkpák^{h}ʊ̄nʊ̀	dawácunu	mé ǎkpák^{h}ʊ̄nʊ̀	méawácunu

[a]The lexically marked low tones of ǎkpak^{h}ʊ̄nʊ ‘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).

14.3.1 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 mɯ́ːnɛ̀ (IndefAnPl) 'indefinite animate plural' or mɯ̀ʔà (IndefAnSg) 'indefinite animate singular'. The verb bears the pronominal proclitic mɛ- (me- ∼ ma-) 'SAP' and ends with -ʔì ⟨t⟩. This is illustrated in 904:[7]

(904) a. Íllu múúne núhbake méímíbajchóhi.

b. Íllu muha núhbake méímíbajchóhi.

ítʃɯ̀	a. mɯ́ːnɛ̀ IndefAnPl	nɯ́ʔpà-kʰɛ̀	mɛ́	ímípàˣtʃʰó-ʔì
like.that	b. mɯ̀ʔà we.ex	clock-objAn	SAP	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 mɯ̄ɯ (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 ímíbajchó dɨhmɨ́ɨne.

b. Múu ímíbajchó dɨhmɨ́ɨne.

a. ɯ́ you b. mɯ̄ɯ̀ IndefAnSg	ímípàˣtʃʰó-ʔ	tɨ́ʔ	mɨ́ːnɛ̀	a. 'You fixed your canoe.' b. 'You ought to fix your canoe.'
	fix-⟨t⟩	your	canoe	

Example 906 is a negative exhortation:[8]

[7] The singular declarative corresponding to 904b is:

ítʃɯ̀ nɯ́ʔpà-kʰɛ̀ ó ímípàˣtʃʰó-ʔì (Íllu núhbake ó ímíbajchóhi)
thus clock-⟨ø⟩ I fix-⟨t⟩
'I fix the clock like this.'

[8] Note that, because 906 is negative, the verb bears -nɛ ⟨n⟩ rather than -ʔi ⟨t⟩, as in the corresponding imperative:

(906) Tsá múu ímityúné méénutúne.

tsʰa^{H}ʔ m$\overset{H}{\underline{\text{ɯ}}}$ɯ̀ ímì-tʲʰú-né mé:nù-tʰú-nè
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. ítʃɯ̀ m$\overset{H}{\underline{\text{ɯ}}}$ɯ̀ mè:nú-ʔì 'You ought to do it
like.that IndefAnSg do-⟨t⟩ this way.'
b. ítʃɯ̀ mú:nè mé mè:nú-ʔì 'This is how we do it.'
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 métsʰɯ̀ (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 pronominal proclitic mɛ 'SAP' and may be followed by -Ⓛkʰi 'purpose'. If the complement'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(kií)!

máhò [mɛ̀ pʰ$\overset{S}{\text{ɛ}}$:-(kʰì:)] 'Let's both of us go!'
let's.go SAP go-pur

(909) ¡Métsu memájcho(ki)!

métsʰɯ̀ [mɛ̀ ma$\overset{S}{}^{x}$tʃʰò-(kʰì)] 'Let's go eat! (plural)'
let's.go SAP eat-pur

ímì-tʲʰú-né mé:nù-tì-nè (Ímityúné méénudíne.) 'Do not do bad things.'
good-neg-⟨ø⟩ do-neg-⟨n⟩

Moreover, the negative suffix of 906 is -tʰɯ, which is used only with finite verbs; it is not -$^{(ʔ)}$ti, as in the corresponding imperative.

(910) Métsu mepéé cóómívuú!

mɛ́tsʰù̱ [mɛ̀ pʰɛ̰ːˍ kʰóːmí-βù̱ː] ‘Let’s go to town!’
let’s.go SAP go town-goal

(911) ¡Májo meááhɨ́ve!

máhò mɛ̀ a̰ːʔíβɛ̀ ‘Let’s visit.’
let’s.go SAP visit

(912) Métsu meááhɨ́veté.

mɛ́tsʰù̱ mɛ̀ a̰ːʔíβɛ̀-tʰɛ́-kʰì ‘Let’s go to visit.’
let’s.go SAP visit-go.do-pur

(913) Májo ɨ́ɨ́cúi teene wákimyéi menɨ́jkévaki.

máhò ɨ́ːkʰúìì tʰɛ̀ː-nɛ̀ kpákʰĭmʲɛ́ì mɛ̀ nɨ̰ˣkʰɛ́βà-kʰì
let’s.go quickly that-⟨ø⟩ work SAP finish-pur
‘Let’s finish the work quickly.’

In 913, kpákʰìmʲɛ́ì ‘work’ bears a low tone on the antepenult because it is nonfinite and nɨ̰ˣkʰɛ́βà-kʰì ‘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 mɛtsʰɯ vary, providing three degrees of urgency, as shown in table 14.3:

Table 14.3 Three degrees of urgency with májo and métsu

		DUAL	PLURAL	
NOT URGENT	HL	máhò	mɛ́tsʰù̱	‘Let’s go!’
		(májo)	(métsu)	
URGENT	LL	màhò	mɛ̀tsʰù̱	‘Come on now; let’s go!’
		(maja)	(metsu)	
VERY URGENT	HL:	máhò:	mɛ́tsʰù̱ː	‘Come on, let’s get moving!’
		(májoó)	(métsuú)	

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 kpa(i)[9] (wái) ‘permit’ before it. This

[9]The final /i/ of kpáì ‘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 /ˣ/, glossed as 'vocative', reflects the absence of a glottal stop that would ordinarily be present.)

(914) Wái majchoj.
kpáì màˣʧʰò-ˣ 'You (sg) may eat (bread).'
permit eat-voc

(915) Wái majchótej.
kpáì màˣʧʰó-tʰɛ̀-ˣ 'You (sg) may go eat (bread).'
permit eat-go.do-voc

(916) Wái tómajcótej.
kpáì tʰómàˣkʰó-tʰɛ̀-ˣ 'You (sg) may go touch it.'
permit touch-go.do-voc

(917) Wái méwaagóoj.
kpáì mɛ́ kpà:kóò-ˣ 'You (pl) may throw it out.'
permit SAP throw-voc

(918) Wái méímibájchoj.
kpáì mɛ́ ímìpáˣʧʰò-ˣ 'You (pl) may fix it.'
permit SAP fix-voc

(919) Wái méwaagóotej.
kpáì mɛ́ kpà:kóò-tʰɛ̀-ˣ 'You (pl) may throw it out.'
permit SAP throw-go.do-voc

(920) Wái méímibajchótej.
kpáì mɛ́ ímìpàˣʧʰó-tʰɛ̀-ˣ 'You (pl) may go fix it.'
permit SAP fix-go.do-voc

Note that in all these cases the verb following kpáì 'permit' bears nonfinite tone (as discussed in section 4.1). This suggests that, like ɨ́:kʰúì 'hurry' discussed in section 14.2.3, kpáì '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 tsáá áméjutu?
à ù̀ ts^{h}á:-^{ʔ} áméhù̀-t^{h}ù̀ ‘Do you come
yı́n you come-⟨t⟩ downriver-sou from down river?’

(922) ¿A mítyáábécoba diíbye?
à mít^{jh}á-ːpé-k^{h}òpà tì-ːp^{j}è ‘Is he a big one (SgM)?’
yı́n big-⟨SgM⟩-aug that-⟨SgM⟩

15.2 Content questions

Content questions always begin with an interrogative phrase. This might

[1] In 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 mứʔà 'who' is used as the subject:

(923) O tsáá ámějutu.
ò tsʰáː-ʔ ámɛ́hʉ̀-tʰʉ̀ 'I come from down river.'
I come-⟨t⟩ down.river-sou

(924) ¿Múha tsáá ámějutu?
mứʔà tsʰáː-ʔ ámɛ́hʉ̀-tʰʉ̀ '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

mứʔà[a]	(múha)	'who (animate, nominative)'
ìː-nɛ̀ ∼ ìː-ná[b]	(ɨɨne ∼ ɨɨná)	'what (inanimates)'
kʰà-[c]	(ca-)	'which (animate)'
kʰɛ̀ː-	(kee-)	'which (inanimate)'
ɨ́βɛ̀ː-	(ɨvee-)	'why'
mʉ̀-	(mu-)	'WH'

[a] mứʔà 'who' is never followed by a classifier. It is only used as the subject; ìː-nɛ̀ ∼ ìː-ná is used in other cases.

[b] ìː- 'what' is never followed directly by a classifier other than -nɛ̀ ⟨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 mʉ̀- 'WH' and ɨ́βɛ̀ː- '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 mu- 'WH' and ɨvee- 'why'

mứ-ìhʲɯ	(múijyu)	'when'	ɨ́βɛ̀ː-kʰi	(ɨveeki)	'why'
mʉ̀-ʔtɯ	(muhdu)	'how'	ɨ́βɛ̀ː-pɛ	(ɨveebe)	'why he'
mʉ̀ː-kʰá	(muucá)	'who' (obj)	ɨ́βɛ̀ː-ʧɛ	(ɨveelle)	'why she'
mʉ̀-ʔtì-(tʲʰɯ)	(muhdityu)	'about whom'	ɨ́βɛ̀ː-mɛ	(ɨveeme)	'why them'
mứ-ʧʲiː$^{\text{L}}$ʔʲɛ	(múlliíhye)	'for whom'	ɨ́βɛ̀ː-nɛ	(ɨveene)	'why that'
mứː-màá	(múúmaá)	'with whom'			
mʉ̀ʔ-ná	(muhná)	'whose'			
mứ-kʰòːkʰa	(múcooca)	'when'			
mứ-tsʰìí	(mútsií)	'where'			

The interrogative phrase generally ends with a high tone indicated in the gloss by .¿?.

(925) ¿Muhdí(tyú) ihjyúv*aá*be?
mùɨ-ˀtí-(tʲʰɯ́) ìˀhʲɯ́βà-ːpɛ̀ ‘About whom does he speak?’
WH-anim-sou.¿? speak-⟨SgM⟩

(926) mùɨː-má ɯ́ pʰɛ̀-é-ʔì (¿Muum*á* ú peéhi?) ‘With whom will
WH-with.¿? you go-fut-⟨t⟩ you go?’

(927) mɯ́-ìhʲɯ́ ɯ́ pʰɛ̀-é-ʔì (¿Múijyú ú peéhi?) ‘When are
WH-⟨time⟩.¿? you go-fut-⟨t⟩ you going?’

ɨβɛɛ ‘why’ can be followed by either an animate or an inanimate classifier; see 928:

(928) a. ¿ɨ́véébeke ú tsiv*á*hi?
b. ¿ɨ́veew*a* ú tsiv*á*hi?

a. ɨ́βɛ́-ːpɛ̀-kʰɛ̀ (why-⟨SgM⟩-objAn)
b. ɨ́βɛ̀ː-kpà (why-⟨slab⟩)

} ɯ́ tsʰìβá-ʔì (you bring-⟨t⟩) {
a. ‘Why did you bring him?’
b. ‘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 15.3 Animate interrogative pronouns formed with mu- ‘who’

	SINGULAR	DUAL	PLURAL
masc.	mùɨ-ːpɛ̀ (muúbe)	mùɨː-tʰɛ́-tsʰì (muutétsi)	mùɨː-tʰɛ̀ (muúte)
fem.	mùɨː-ʧɛ̀ (muúlle)	mùɨː-tʰɛ́-pʰɨ̀ (muutépɨ)	
unspec.	mɯ́-ʔà (múh*a*)		

(929) ¿Múúbécob*a* ts*áá*hi?
mɯ́-ːpé-kʰòpà tsʰá-ːʔì ‘Who is the big guy that came?’
WH-⟨SgM⟩-aug come-⟨t⟩

In 930 the interrogative pronoun bears -Ⓛkʰɛ ‘objAn’ because it is an animate direct object:

(930) ¿Múúbeké ú tsiváhi?
mú-:pè-k^{h}é ú tsʰìβá-ʔì 'Whom (SgM)
WH-⟨SgM⟩-objAn.¿? 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
mù:pè (muúbe) ⟶ mù:pá (muubá) 'who (SgM)'
mù:tʃè (muúlle) ⟶ mù:tʃá (muullá) 'who (SgF)'
mù:tʰè (muúte) ⟶ mù:tʰá (muutá) 'who (AnPl)'

(932) ¿Muubá tsááhií?
mù-:pá tsʰá:-ʔìí 'Who (SgM) comes?'
WH-⟨SgM⟩.¿? come-⟨t⟩

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 tsiváhi?
mù-kʰá ú tsʰìβá-ʔì 'Whom (Sg/Du/Pl) are
WH-objAn.¿? you bring-⟨t⟩ you bringing?'

These two facts—the final high tone and the vowel change—are evidence of an interrogative suffix that (1) has a Ⓗ 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'

	singular	dual	plural
masc.	kʰà-:pè (*caábe*)	kʰà:-tʲʰétsʰì (*caatyétsi*)	kʰà:-tʲʰè (*caátye*)
fem.	kʰà:-tʃè (*caálle*)	kʰà:-tʲʰépʰɨ (*caatyépɨ*)	

[2]This 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 coalesence.

In 934 the interrogative pronoun is the direct object; because it is animate it bears -Ⓛ$k^h\varepsilon$ 'objAn':

(934) ¿C*aa*tyétsikyé ú tsiváhi?
k^{h}à:-t^{jh}étsʰì-k^{jh}é ú tsʰìβá-ʔì 'Which two (DuM) are
which-⟨DuM⟩-objAn.¿? you bring-⟨t⟩ you bringing?'

In 935 the interrogative pronoun takes -$^{(ʔ)}$ti (-hdi) 'benefactive' because it is animate:

(935) ¿C*áá*byedí(tyú) ú ihjyúváhi?
k^{h}á-:p^{j}è-tí-(t^{jh}ú) ú ìʔh^{j}úβá-ʔì
which-⟨SgM⟩-anim-sou.¿? you speak-⟨t⟩
'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, ɨ:- '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.[3]

(936) a. ɨ̀-ná (ɨɨná) 'what (sg)'
what-⟨ø⟩.¿?
b. ɨ́-nɛ̀-:k^{h}ú (ɨneecú) 'what (du)'
what-⟨ø⟩-du.¿?
c. ɨ́-nɛ̀-ʔhí (ɨnehjɨ) '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), ɨ̀:nɛ́ changes to ɨ̀:ná

(937) ɨ̀:-ná á:k^{h}ìt^{jh}é-ʔì (¿ɪɨná *áá*kityéhi?) 'What fell?'
what-⟨ø⟩.¿? fall-⟨t⟩

(938) ɨ̀:-ná ú tsʰìβá-ʔì (¿ɪɨná ú tsiváhi?) 'What did you
what-⟨ø⟩.¿? you bring-⟨t⟩ bring?'

(939) ɨ̀:-ná ɨ:-ɲɛ̀ɛ́ (¿ɪ́ɨná ɨíñeé?) 'What is this thing?'
what-⟨ø⟩.¿? this-⟨ø⟩

The questions in 940 ask for more specific information regarding a tree or means of transportation:

[3]However, another classifier may follow -nɛ̀ ⟨ø⟩, as in 940.

(940) a. ¿ɪ́nehé teéhe?

b. ¿ɪ́nemɨ teémɨ?

a.	ɨ́:-nɛ̀-ʔɛ́	tʰɛ̀ɛ́-ʔɛ̀	‘What tree is that?’
	what-⟨ø⟩-⟨tree⟩	that-⟨tree⟩	
b.	ɨ́:-nɛ̀-mɨ̀	tʰɛ̀:-mɨ̀	‘What canoe (car,…)
	what-⟨ø⟩-⟨canoe⟩	that-⟨canoe⟩	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(:)- ‘which’, some classifier, and optionally a pluralizer: -:kʰɯ ‘duIn’ or -(ʔ)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 15.5 Inanimate interrogative pronouns formed with kɛ- ‘which’

	singular	dual	plural
thing	kʰɛ̀:-nɛ̀ (keéne)	kʰɛ́-nɛ̀-:kʰɯ̀ (kéneécu)	kʰɛ́-nɛ̀-ʔhɨ̀ (kénehjɨ)
transport	kʰɛ̀:-mɨ̀ (keémɨ)	kʰɛ́-mɨ̀-:kʰɯ̀ (kémɨɨ́cu)	kʰɛ́-mɨ̀-ʔhɨ̀ (kémɨhjɨ)
disk-like	kʰɛ̀:-hɨ̀ (keéjɨ)	kʰɛ́-hɨ̀-:kʰɯ̀ (kéjɨɨ́cu)	kʰɛ́-hɨ̀-ʔhɨ̀ (kéjɨhjɨ)
…	…	…	…

kʰɛ̀:-nɛ́ becomes kʰɛ̀:-ná when used as a subject, as a predicate adjective, or as a direct object, as in 941:

(941) kʰɛ̀:-ná ɯ́ tsʰɨ̀βá-ʔɨ̀ (¿Keená ú tsiváhi?) ‘Which have
which-⟨ø⟩.¿? you bring-⟨t⟩ 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) ¿ɪɨnéubá óhdivu tsívátúroobe u tsááhií?

ɨ̀:-nɛ́-ɯ̀pá ó-ʔtì-βɯ̀ tsʰíβá-tʰɯ́-ɾò-:pɛ̀ ɯ̀
what-⟨ø⟩-prob I-anim-goal bring-neg-frs-⟨SgM⟩ you

tsʰá:-ʔì-:
come-⟨t⟩-emph
‘Did you come without bringing me anything?!’

Other examples of rhetorical questions are given in 943:

(943) a. ¿Muhdú?
b. ¿Muhdúrá?
c. ¡Muhdúráha(ja) teéne!

a. mùɯ-ʔtúɯ		‘How’s that?’
WH-⟨like⟩.¿?		
b. mùɯ-ʔtúɯ-ɾá		‘How’s that? (I expected
WH-⟨like⟩-frs.¿?		something different)’
c. mùɯ-ʔtúɯ-ɾá-ʔà(hà)	tʰɛ̀ː-nɛ̀	‘That’s incredible! (Prove it!)’
WH-⟨like⟩-frs-verify	that-⟨ø⟩	

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.

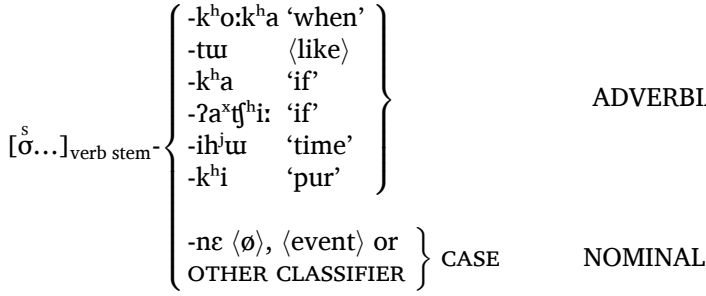


Figure 16.1 STR: subordinate clause verbs

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 ájtyumɨ́ áíívyejɑ.

b. Ó ájtyumɨ́ aíívyejɑ.

ó á^{x}t^{jh}ùmɨ́-^{ʔ}	a. ^{S}áí-ːβʲɛ̀	-hà	‘I saw a
I see-⟨t⟩	b. ^{N}áí-ːβʲɛ̀ burn-sIn	⟨shelter⟩	a. house burning.’ b. burned house.’

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 tì-pʲɛ̀ (that-⟨SgM⟩) in 994. It may be a bound adjectival stem followed by a classifier, such as ts^{h}à-ːt^{h}ɛ̀ (one-AnPl) in 981. It may be a simple noun phrase, such as ts^{h}ɨ́ːmɛ̀nɛ̀ (child) ‘child’ in 737. It may be a genitive phrase, such as í òːʔíːpʲɛ̀ (self dog-⟨SgM⟩) as in 953. It may be a relative clause headed by a classifier, such as ɛ̀^{ʔ}-tɯ́-βá-à nɛ́ː-ʧɛ̀-ɾɛ̀ (that-⟨like⟩-rpt-rem say-⟨SgF⟩-only) ‘she who said like that’ in 688. Most frequently it is a pronominal proclitic: o ‘I’, ɯ ‘you’, mɛ ‘SAP’, or the anaphor i ‘self’,[1] which generally refers to an element of the superordinate clause, as in 982 in which i refers to the subject of the main clause.[2] Further examples follow:

(945) Ó ájtyumɨ́ u áwácunúne.

ó á^{x}t^{jh}ùmɨ́-^{ʔ}	[ùɯ	^{S}ákpák^{h}ùnúɯ́]-nɛ̀	‘I saw you yawn.’
I see-⟨t⟩	you	yawn -⟨ø⟩	

(946) U ɑ́ɑhɨ́vetéhɑjchíí ó imíllé umɑ o pééneé.

[ùɯ	^{S}áːʔíβɛ̀-t^{h}é	]-ʔà^{x}ʧ^{h}íː	ó ìmíʧé-^{ʔ}	[ùɯ-mà	ò p^{h}^{S}ɛ̀ː]-nɛ̀ɛ́
you visit-go.do	-if	I	want-⟨t⟩	you-with	I go -⟨ø⟩

‘If you go visiting, I want to go with you.’

(947) Ó ɑahɨ́veté u méénújá pañévu

ó àːʔíβɛ̀-t^{h}é-^{ʔ}	[[ùɯ	^{S}mɛ́ːnúɯ́]-há	Ⓖ	p^{h}^{L}ą̀ɲɛ́]-βùɯ	
I visit-go.do-⟨t⟩	you	make -⟨shelter⟩		inside	-goal

‘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 tìt^{jh}ɛ̀ in 229, page 131.

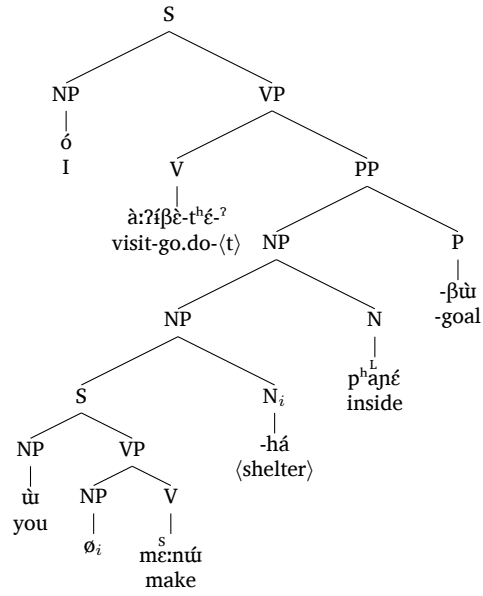


Figure 16.2 STR: Ó *aahɨveté u méénújá* pañévu

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 *ájtyumɨ́* dibye *májchone*.

ó áˣtʲʰʊ̀mɨ́-ʔ [tì-pʲɛ̀ ᵴaˣʧʰò]-nɛ̀
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:pʲè pʰɛ́:nɛ̀: 'that he goes', ɨ́ʔtátsʰó(ʔ) 'sad' is a predicate adjective, and the copula is implicit:

(949) ɨ́hdátsó diibye pééneé.

ɨ́ʔtátsʰó(ʔ) [tì-:pʲè pʰɛ̀ː]-nɛ̀: 'It is sad that he goes.'
sad that-⟨SgM⟩ go -⟨ø⟩

16.2.2 Object complements

The following verbs (among many others) take object complements: aˣtʲʰɯmi 'see', ɨ:tʰɛ 'look', ʧɛ:po 'hear', imitʃɛ 'want', pʰi:βʲɛtʰɛ 'be able', and kpa:hakʰɯ '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 -Ⓛ◯nɛ ⟨ø⟩.[3] -Ⓛ◯nɛ does not impose its Ⓛ on a monosyllabic or bisyllabic verb because the initial syllable must bear high tone. Further, the tones of $\overset{\text{L}}{\#}$…-Ⓛ◯ne ⟨ø⟩ do not override the tones imposed by, for example, a preceding -Ⓛ◯tɯ 'like' or -Ⓛ◯iɲɯ '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) ó ìmíʧé-ʔ [{ a. ò / I / b. ù̀ / you } pʰɛ̀ː]-nɛ̀ɛ́ go -⟨ø⟩ { a. Ó imíllé o pééneé. 'I want to go.' / b. Ó imíllé u pééneé. 'I want you to go.' }
I want-⟨t⟩

(951) Muurá tsá dibye ímílletú ipyéeneé.

mɯ̀ɯ:ɾá tsʰa̋ʔ tì-pʲè ímíʧè-tʰɯ́ [ì pʲʰɛ̀ː]-nɛ̀ɛ́
confirm not that-⟨SgM⟩ want-neg self go -⟨ø⟩
'Well, he does not want to go.'

The sentence in 952a (which contains a relative clause) is embedded under a sensory verb in 952b:

[3] Relative clauses and some sensory verb complements are followed by a different classifier; for example, see 956 and example 80, page 68.

(952) a. Ú méénuj*a* áiivyéhi.

b. Ó ájtyumɨ́ ú méénuj*a* áiivyéne.

a. [ú$_{}$ m^{S}ɛ:nù]-hà áì-:β^{j}é-ʔì
you build -⟨shelter⟩ burn-sIn-⟨t⟩

b. ó á^{x}t^{jh}ù̀mɨ́-^{ʔ} [[ú$_{}$ m^{S}ɛ:nù]-hà ^{S}àì-:β^{j}é]-nɛ̀
I saw-⟨t⟩ you build -⟨shelter⟩ burn-sIn -⟨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 p^{h}ì:β^{j}ét^{h}é-^{ʔ} 'be able'. Example 367, page 178, has an object complement to a phasal verb.

(953) J*óáa* w*aa*j*á*cú íoohííbye dsɨ́j+véne.

hóáà kpà:hák^{h}ú̀-^{ʔ} [í $^{G}_{L}$ò:ʔí-:p^{j}è ts^{S}ɨhì̀βé]-nɛ̀
John knows-⟨t⟩ self dog-⟨SgM⟩ die -⟨ø⟩
'John knows that his dog died.'

(954) Ó *á*jtumɨ́ J*óáa* w*á*kímyeíñe.

ó á^{x}t^{h}ù̀mɨ́-^{ʔ} [hóáà kp^{S}àk^{h}ím^{j}èí]-ɲɛ̀ 'I saw John working.'
I saw-⟨t⟩ John work -⟨ø⟩

(955) ¿A ú piivyété cújúw*a*j*úúha* u méénune?

à ú$_{}$ p^{h}ì:β^{j}ét^{h}é-^{ʔ} [k^{h}ú́hú́kpà-hú́:ʔà ù̀ m^{S}ɛ:nù]-nɛ̀
y*ɨ*n 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 t^{h}é-ts^{h}ɨ́ '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 *á*jtyumí tetsɨ́ w*á*jpí hallúrí íjcyane.

b. Ó *á*jtyumí tétsɨ́ w*á*jpí hallúri íjcyátsɨ́ke.

c. Ó *á*jtyumí tétsɨ́ke w*á*jpí hallúri íjcyátsɨ́ke.

ó á^{x}t^{jh}ʉ̀mí-^{ʔ}
I see-⟨t⟩

a. [t^{h}è-ts^{h}ɨ́ kpá^{x}p^{h}í Ⓖ $^{ʔ}\overset{L}{\text{a}}$tʃʉ́ɪ-rí $\overset{S}{\text{ɪ}}^{x}$k^{jh}à]-nɛ̀
that-⟨child⟩ man on.top-oblIn be-⟨ø⟩

b. [t^{h}é-ts^{h}ɨ́ kpá^{x}p^{h}í Ⓖ $^{ʔ}\overset{L}{\text{a}}$tʃʉ́ɪ-rì $\overset{S}{\text{ɪ}}^{x}$k^{jh}á]-ts^{h}ɨ́-k^{h}ɛ̀
that-⟨child⟩ man on.top-oblIn be -⟨child⟩-objAn

c. t^{h}é-ts^{h}ɨ́-k^{h}ɛ̀ Ⓐ [kpá^{x}p^{h}í Ⓖ $^{ʔ}\overset{L}{\text{a}}$tʃʉ́ɪ-rì ø$_{i}$ $\overset{S}{\text{ɪ}}^{x}$k^{jh}á]-ts^{h}ɨ́$_{i}$-k^{h}ɛ̀
that-⟨child⟩-objAn man on.top-oblIn be -⟨child⟩-objAn

a. ‘I saw that the child was on top of the man.’
b,c. ‘I saw the child that was on top of the man.’

Compare the sensory verb complement in 957 to the relative clauses in 999 and 1000, page 382.

(957) Ó *á*jtyumɨ́ teja *á*iivyéne

ó á^{x}t^{jh}ʉ̀mɨ́-^{ʔ} [t^{h}è-hà $\overset{S}{\text{à}}$ì-ːβ^{j}ɛ́]-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 *á*jtyumɨ́ oohííbyé oke ɨ́hdoobe dsɨ́ɨ́nene bájú pañe.

ó á^{x}t^{jh}ʉ̀mɨ́-^{ʔ} [[[ò:ʔí-ːp^{j}ɛ́ ò-k^{h}è $\overset{S}{\text{ɪ}}^{ʔ}$tò]-ːpɛ̀]
I see-⟨t⟩ jaguar-⟨SgM⟩ I-objAn bite -⟨SgM⟩

$\overset{S}{\text{ts}}$ɪ́ːnɛ̀]-nɛ̀ páhúɪ Ⓖ p$^{h}\overset{L}{\text{a}}$ɲɛ̀]
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.[4]

[4]The phrase páhúɪ p^{h}àɲɛ̀ ‘in the jungle’ is interpreted as a modifier of tsíːnɛ̀nɛ̀ ‘run’, as indicated by the coindexed null ø$_{k}$.

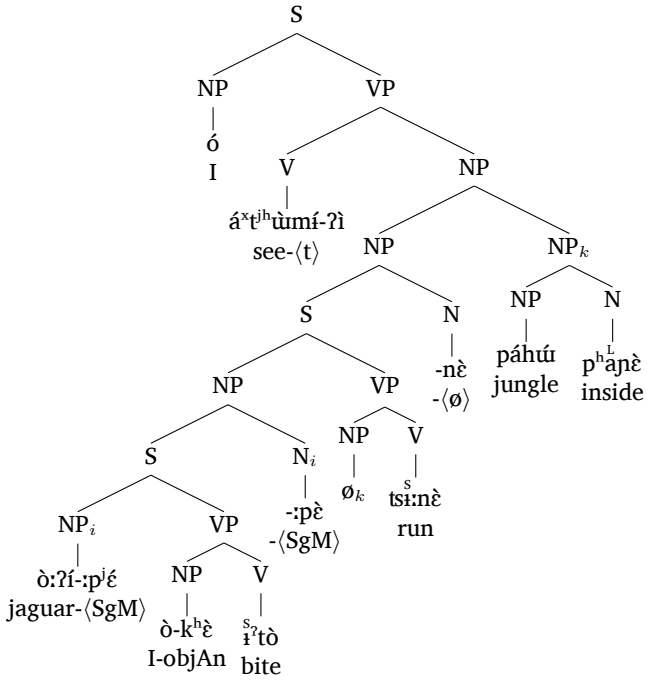


Figure 16.3 STR: ...oohííbyé oke ɬhdoobe dsɬɬnene bájú pañe.

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) ...ɬmɨ́áájú o úwaabómé ímí úraavyéné oke ditye úúbálléneri.

[[[ɬ́mɨ́á:hɯ́ ø$_i$ ò ɯ̰kpà:pó]-mɛ́$_i$ ímíʔ ɯ̰ɾà-:βʲɛ́]-nɛ́ ò-k^{h}ɛ̀
truth I teach -⟨AnPl⟩ good follow-sIn -⟨ø⟩ I-objAn

tì-t^{jh}ɛ̀ ɯ̰:pátʃɛ́]-nɛ̀-rì
that-⟨AnPl⟩ tell -⟨ø⟩-oblIn
‘(I was gladdened when) they told me that those to whom I taught the truth are following well.’

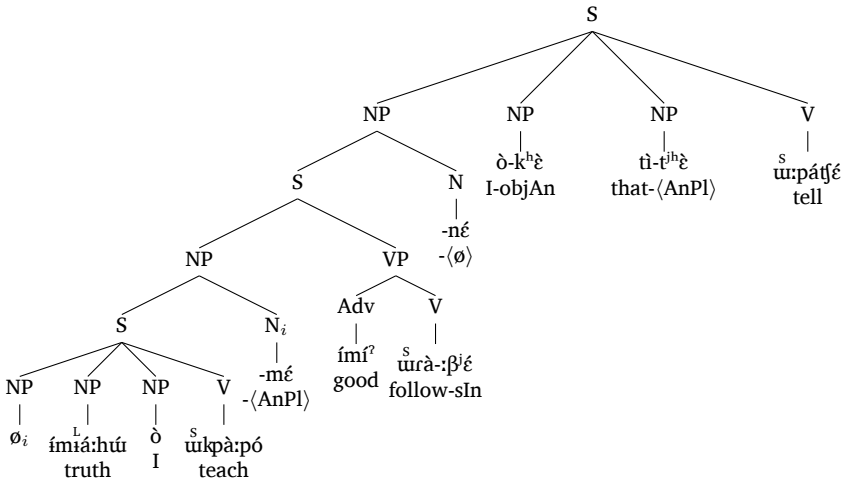


Figure 16.4 STR: ɨ́mɨáájú o úwaabómé ímí úraavyéné oke ditye úúbállé(neri)

An object complement may be an embedded content question, as in the subordinate clause beginning with mɯ́-:pɛ̀-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.

tsʰáʔ ò kpá:hákʰɯ̀-tʰɯ́ [mɯ́-:pɛ̀-kʰɛ́ ɯ̀ tsʰíβà]-nɛ̀
not I know-neg who-⟨SgM⟩-objAn you bring -⟨ø⟩
'I do not know whom (SgM) you are bringing.'

(961) Tsá o wáájácutú múha tsááneé.

tsʰáʔ ò kpá:hákʰɯ̀-tʰɯ́ [mɯ́-ʔà tsʰà:]-nɛ̀ɛ́
not I know-neg WH-Pl come -⟨ø⟩
'I do not know who (or what animals) come.'

16.3 -ne ⟨ø⟩ versus ⟨event⟩

Three suffixes have the segmental shape /-nɛ/. One, glossed ⟨n⟩, follows -Ⓛtʰɯ (-tu) 'negative'; see section 13.2. The other two are glossed ⟨ø⟩ and ⟨event⟩. This section deals with the contrast between these two.

⟨ø⟩ 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.[5] Both -Ⓛ◯nɛ ⟨ø⟩ and -nɛ ⟨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:

#σ…σσne	⟨ø⟩ (thing)
#σ…σσne	⟨event⟩

This difference is visible only on verbs that have three or more syllables,[6] as in 962, in which the tone of the verb's penult (/pa/) correlates with whether the clause bearing -nɛ refers to an object (962a) or an event (962b):

(962) a. Iímíbajchóné tsajtyéébe.

b. Teene iímíbájchóne tsajtyéébe.

a.	ì	ímípàˣtʃʰó-nɛ́	tsʰáˣtʲʰɛ́-ːpɛ̀ take-⟨SgM⟩
	self	fix-⟨ø⟩	
b. tʰɛ̀ː-nɛ̀	ì	ímípáˣtʃʰó-nɛ̀	
that-⟨ø⟩	self	fix-⟨event⟩	

a. 'He carried off the thing that he fixed.'

b. 'After having fixed it, he carried (it) off.'

Both types of -nɛ are present in mɛ̀kʰáʔkʰɯ́ˣtsʰónɛ̀ mɛ̀ímípàːβʲɛ́nɛ́ in figure 16.5; this is a subordinate clause which has a subordinate adverbial clause within it:[7] The adverbial clause bears -nɛ ⟨event⟩ while the clause in which it is embedded bears -nɛ ⟨ø⟩. (The tone of the proclitics is explained in section 3.12.2, page 93.)

[5]The 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.

[6]The 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.

[7]This example is taken from (Thiesen *et al.* 1982).

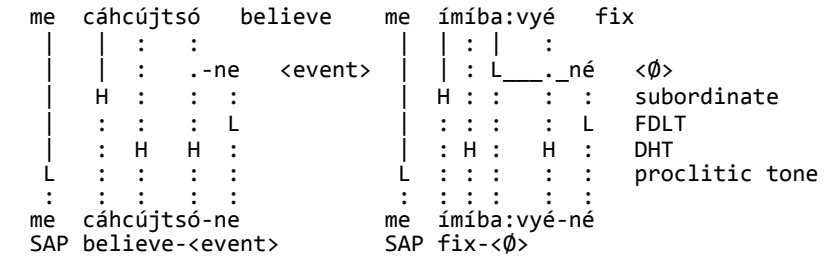


Figure 16.5 TD: mecáhcújtsóne, meímíba:vyéné

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}nɛ. 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}nɛ 'subordinate' in the tone derivation of ì kpá:hàk^{h}ú-húk^{h}ó:-nɛ̀ in figure 16.6. Further, note that the low tone borne by -juco (:) 'now' is delinked but *not* the Ⓛ that it imposes on the host's penult. (Unfortunately, at this point we can not say which low tones -nɛ ⟨event⟩ fails to delink.)

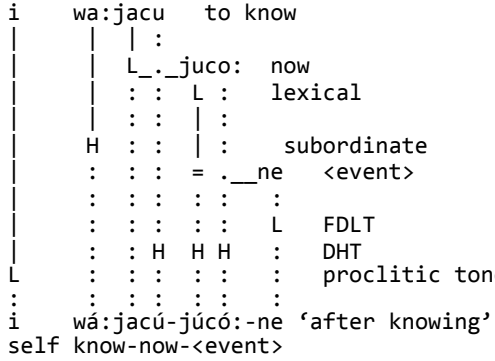


Figure 16.6 TD: delinking by ⟨event⟩: ì wá:jacújúcó:ne

To this point we have characterized the difference between ⟨ø⟩ and ⟨event⟩ as semantic. But consider 963:

(963) a. O dóóne ú ájtyumɨhi.
b. O dóóne o péjucóóhi.
c. Idóóne péjúcoóbe.

a. [ò tó̰ː]-nɛ̀ ú́ á^{x}t^{jh}ù̀mí-ʔì. ‘You saw me eating (meat).’
I eat -⟨ø⟩ you see-⟨t⟩

b. [ò tó̰ː]-nɛ̀ ò p^{h}ɛ́-hù̀k^{h}óː-ʔì ‘Having eaten (meat),
I eat -⟨event⟩ I go-now-⟨t⟩ I go now.’[8]

c. [ì tó̰ː]-nɛ̀ p^{h}ɛ́-hú́k^{h}ò-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 -Ⓛ◯nɛ ⟨ø⟩. This—we assume—is the result of subcategorization; that is, verbs like a^{x}t^{jh}ɯmɨ ‘see’ in 963a subcategorize for a complement headed by -Ⓛ◯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 -Ⓛt^{h}ɯ ‘negative’ (mentioned at the very start of this section), it may be desirable to identify this with -Ⓛ◯nɛ ⟨ø⟩. There are two reasons. First, the tone is consistent; indeed the Ⓛ imposed by -t^{h}ɯ may actually be the Ⓛ imposed by -Ⓛ◯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 tó̰]-nɛ̀ p^{h}ɛ́-hú́k^{h}ò-ːpɛ̀ ‘Having eaten (meat), I go now.’
I eat -⟨event⟩ go-now-⟨SgM⟩

Chapter 17

Adverbial 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 adverbial clause bears high tone; see section 3.12.1.

17.1 Purpose clauses

Adverbial clauses with -Ⓛ(kʰi) 'purpose' indicate the purpose for the event indicated by the main clause. Utterance finally -Ⓛkʰì 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;[1] see examples 964b and 967.

(964) a. Peeme ihjyávú icyúwaki.

b. Peeme icyúwa ihjyávu.

pʰɛ̀ː-mɛ̀ go-⟨AnPl⟩

a. ʔ́ hʲá-βɯ́ ì kʲʰʷ̠ɯ̀kpà-kʰì
self house-goal self sleep-pur

b. ì kʲʰʷ̠ɯ̀kpà-__ ʔ́ hʲá-βɯ̀
self sleep-pur self house-goal

a,b. 'They went to their house to sleep.'

[1] 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.

ò pʰéː-ʔ [tʰa^{G}ʔ hʲà ò ɪ^{S}mípáˣʧʰò]-kʰì ‘I go to fix
I go-⟨t⟩ my house I fix -pur my house.’

(966) Mááhóvu oke daacu o májchoki.

máːʔó-βʉ̀ ò-kʰè t-àːkʰʉ̀ [ò maˣ^{S}ʧʰò]-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.

[tʰa^{G}ʔ hʲà ò ɪ^{S}mípáˣʧʰo^{L}]-_ ò pʰéː-ʔì ‘I go to fix my house.’
my house I fix-pur I go-⟨t⟩

In 968a ì ɲéʔkʰò-kʰì bears the expected tones: high on the root’s initial syllable and low preceding -Ⓛkʰi ‘purpose’. In 968b the initial syllable of ɲéʔkʰòtʰéːpè is high because of the Ⓛ imposed by -Ⓛtʰè ‘go to do’ on the second syllable. In 968c, the first syllable of néʔkʰò-βʉ̀ bears high tone because of the genitive low tone docked on the modifier’s final syllable.

(968) a. Peebe úmehecóóné iñéhcoki.

pʰè-ːpè [úmé-ʔè-kʰóː-né ì ɲɛ^{S}ʔkʰò]-kʰì
go-⟨SgM⟩ tree-⟨tree⟩-⟨pole⟩-pl self hunting -pur

b. Úmehecóóne ñéhcotéébe.

[úmé-ʔè-kʰó-ːné ɲɛ^{S}ʔkʰò]-tʰé-ːpè
tree-⟨tree⟩-⟨pole⟩-pl hunting -go.do-⟨SgM⟩

c. Peebe úmehecóóne néhcovu.

pʰè-ːpè [úmé-ʔè-kʰó-ːnɛ^{G} néʔkʰò]-βʉ̀
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 mɛtsʰɯ ‘Let’s (plural) go!’ take purpose complements. (See section 14.3.3 for further discussion.) For example:

(969) Métsu memájchoté(ki).

mɛ́tsʰʉ̀ [mè máˣʧʰò]-tʰé-(kʰì) ‘Let’s go eat.’
let’s SAP eat -go.do-pur

In 969 the high tone preceding -Ⓛkʰi is due to the low tone imposed by -Ⓛtʰɛ ‘go to do’; it blocks the Ⓛ of -Ⓛkʰì because its docking would violate

the *LLX constraint. Likewise, in 970, the high tone preceding -ⓛkʰi is due to the lexically marked low of kpakʰimɛ̀i.

(970) Peebe iúmɨ́hévú iwákímyeíki.

pʰɛ̀-ːpɛ̀ ì úmɨ́ʔé-βʉ́ [ì kpákʰímʲɛ́í]-kʰì
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 -ʔàhʧʰíːhʲʉ̀ (-hajchííjyu) 'if'. These indicate that the event of the main clause depends on that of the subordinate clause. Sentence finally -ʔàˣʧʰíːhʲʉ̀ (-hajchííjyu) is used, as in 971, and sentence medially -ʔàˣʧʰíː (-hajchíí) is used, as in 972.[2]

(971) Ó peé u ímílléhajchííjyu.

ó pʰɛ̀-ɛ́-ʔ [ʉ̀ ímíʧɛ́]-ʔàˣʧʰíːhʲʉ̀ 'I will go if you wish.'
I go-fut-⟨t⟩ you want -if

(972) U ímílléhajchíí úúma ó peéhi.

[ʉ̀ ímíʧɛ́]-ʔàˣʧʰíː úːmà ó pʰɛ̀-ɛ́-ʔì 'If you wish, I will
you want -if you-with I go-fut-⟨t⟩ go with you.'

Embedded alternative questions are expressed using -ʔahʧʰiihʲʉ̀, as in 973:

[2] A fuller version of 972 follows:

U ímílléhajchíí úúma ó peé díhjyávú memájchoki.

[ʉ̀ ímíʧɛ́]-ʔàˣʧʰíː úːmà ó pʰɛ̀-ɛ́-ʔ [tíʔ Ⓖ hʲá]-βʉ́
you want -if you-with I go-fut-⟨t⟩ your house -goal

[mɛ̀ màˣʧʰò]-kʰì
SAP eat -pur
'If you wish, I will go with you to your house to eat.'

(973) Tsá o wáájácutú diibye tsááhajchííjyu.

tsʰa̋ʔ ò kpá:hákʰù-tʰú [tì-:pʲè tsʰa̋:]-ʔàˣʧʰí:hʲù
not I know-neg that-⟨SgM⟩ comes -if
'I do not know whether or not he is coming.'

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[3] 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 -ɾa ∼ -ɾo 'frustrative, contraexpectation'.[4] For example:

(974) U májchoca tsúúca ú tsɬjpanúiyáhi.

[ù mâˢˣʧʰò]-kʰà tsʰú:kʰà ú tsʰɬˣpʰànú-ì-já-ʔì
you eat -CF already you be.strong-fut-frs-⟨t⟩
'If you had eaten, you would now be strong.'

(975) Teene u májchótuca tsá u chéméítyuró(ne).

[tʰè:-nè ù mâˢˣʧʰó-tʰù]-kʰà
that-⟨ø⟩ you eat-neg -CF

tsʰa̋ʔ ù ʧʰémé-í-tʲʰù-ɾó-(nè)
not you be.ill-fut-neg-frs-⟨n⟩
'If you had not eaten that, you would not have taken ill.'

(976) ¿Aca iíímútuca meke pɬáábóiyóne?

à-kʰà [ì ì̂ˢ:mú-tʰù]-kʰà
ques-doubt self be.savory-neg -CF

mè-kʰè pʰɬá:pó-ì-jó-nè
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:

[3] This is generally a *causal* dependence.

[4] This requirement—that the main verb bear both the future and the frustrative (contra-expectation) suffixes—negates the future possibility of the event of the main clause, thereby giving the counterfactual meaning.

(977) Ámuha muurá tsá oke mecáhcújtsóítyuró méénúráítyúronéhjɨ o méénuhíjcyátuca.

ámɯ̀ʔà mɯ̀ːɾáˀ tsʰa̋ˀ ò-kʰɛ̀ mɛ̀ kʰáˀkʰɯ́ˣtsʰó-ɨ́-tʲʰɯ̀-ɾó
youPl confirm not I-objAn SAP believe-fut-neg-frs

[mɛ̋ːnú-ɾá-í-tʲʰɯ́-ɾò-nɛ́-ˀhɨ́ ò mɛ̋ːnɯ̀-ˀ ɨ̋ˣkʲʰá-tʰɯ̀]-kʰà
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) (-naaaca) 'while', -ihʲɯ (-ijyu) ⟨time⟩, -nɛ (-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.

[tì-tʲʰɛ̀ tsʰa̋]-kʰòːkʰà pʰɛ̀ː-í-mʲɛ́ ɨ̋ˀ hʲá-βɯ̀
that-⟨AnPl⟩ come -when go-fut-⟨AnPl⟩ self house-goal
'When they come, they will go to their house.'

(979) Dííbyeke o ájtyúmɨ́ijyu dííbyema ó ihjyúvaáhi.

[tí-ːpʲɛ̀-kʰɛ̀ ò a̋ˣtʲʰɯ́mɨ́]-ìhʲɯ̀ tí-ːpʲɛ̀-mà
that-⟨SgM⟩-objAn I see- -⟨time⟩ that-⟨SgM⟩-with

ó ìˀhʲɯ́βà-á-ʔì
I speak-fut-⟨t⟩
'When I see him, I will speak to him.'

-naa̋(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 -naa̋ːkʰa (-náaáca) is used, as in 980, and sentence medially -naa̋ is used, as in 981.

(980) Tsaate ɨɨcú tsijtye ádónáaáca.

tsʰà-ːtʰè ìːkʰʊ́ʊ-ˀ [tsʰi̯ᶜ-ˣtʲʰè ǎtó]-nǎáákʰà
one-⟨AnPl⟩ play-⟨t⟩ other-⟨AnPl⟩ drink -while
'Some play while others drink.'

(981) Tsaate májchónáa tsijtye ɨɨcúhi.

[tsʰà-ːtʰè maˣʧʰó]-nǎá tsʰì-ˣtʲʰè ìːkʰʊ́ʊ-ʔì
one-AnPl eat -while other-⟨AnPl⟩ play-⟨t⟩
'While some eat, others play.'

-nɛ ⟨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) ì maˣʧʰó-nɛ̀ pʰɛ̀-ːpɛ̀ (Imájchóne peébe.) 'He went after self eat-⟨event⟩ go-⟨SgM⟩ he ate.'

A case marker may follow -nɛ ⟨event⟩ to clarify the temporal relation. For example, -ma 'with' is added in 983:

(983) Aane imájchónema péjúcoóbe.

à:-nɛ̀ [ì maˣʧʰó]-nɛ̀-mà pʰɛ́-hʊ́kʰò-ːpɛ̀
thm-⟨ø⟩ self eat -⟨event⟩-with go-now-⟨SgM⟩
'Then, in the circumstance of having eaten, he went.'

A temporal noun may follow: pǒːnɛ 'after', ɨ̌ˀtɛ 'before' or ʔaˣʧʰotʰa 'duration'.[6] These words head a genitive construction; the modifier is the phrase (with subordinate clause) headed by -nɛ ⟨event⟩.

pǒːnɛ 'after' indicates that the event of the main clause follows that of the subordinate clause:

(984) O májchóné boone o péjucóóhi.

[[ò maˣʧʰó]-nɛ́[7] Ⓖ pǒːnɛ̀] ò pʰɛ́-hʊ̀kʰóː-ʔì
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 pǒːnɛ 'after', as represented in figure 17.1.

[5] In 982 both syllables of maˣʧʰo 'eat' bear high tones, which is characteristic of -nɛ̀ ⟨event⟩; see section 16.3.

[6] There is also a classifier -ʔàˣʧʰótʰà that indicates temporal duration or spatial extension.

[7] The high tone on -nɛ is forced by the lexically marked tone of pǒːnɛ, to avoid violating the *LLX constraint.

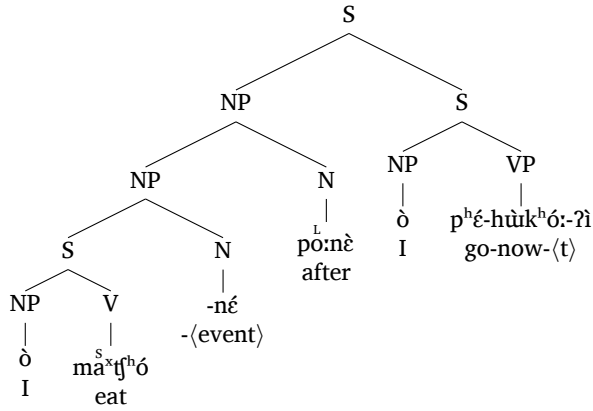


Figure 17.1 STR: O májchóné boone o péjucóóhi.

L
ɨʔtɛ (ɨhde) 'before' (example 985) indicates that the event of the main clause precedes that of the subordinate clause, while ʔàˣʧʰótʰà (hajchóta) 'duration' (example 986) indicates that the events of the main and subordinate persisted for the same length of time.

(985) O májchóíyóné ɨhde o péjucóóhi.

[[ò maˣʧʰó-í-jó]-né Ⓖ ɨʔtɛ̀] ò pʰé-hʉ̀ʉkʰó:-ʔì
I eat-fut-frs -⟨event⟩ before I go-now-⟨t⟩
'I go now, before eating.'

(986) O májchóné hajchótá cúwaábe.

[[ò maˣʧʰó]-né ʔàˣʧʰótʰá] kʰʉ́ʉkpà-ːpɛ̀
I eat -⟨event⟩ duration sleep-⟨SgM⟩
'He slept the whole time that I was eating.'

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.

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) Iímíllétsii íjcyaábe.

[ì ˢímíʧɛ́]-tsʰìː íˣkʲʰà-ːpè 'He is in the place that
self want -⟨place⟩ be-⟨SgM⟩ he likes.'

(988) Téhulle diibye iímíbáchohíjcyáhulle.

tʰɛ́-ʔùɯʧɛ̀ tì-ːpʲɛ̀ [ì ˢímípáʧʰò-ʔ íˣkʲʰá]-ʔùɯʧɛ̀
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 ∼ -ɯ 'goal' or -tʰ(ʲ)ɯ 'source'. Examples follow:

(989) O péé tahmɨ́ɨ́né o ímíbájchótsihvu.

ò pʰɛ́ːʔ [tʰᴳàʔ míːnɛ́ ò ˢímípáˣʧʰó]-tsʰìʔ-βɯ̀
I go-⟨t⟩ my canoe I fix -⟨place⟩-goal
'I go to where I fix my canoe.'

(990) O tsáá teene o ímíbájchóhullétu.

ò tsʰáːʔ [tʰèː-nɛ̀ ò ˢímípáˣʧʰó]-ʔùɯʧɛ́-tʰɯ̀
I come-⟨t⟩ this-⟨ø⟩ I fix -⟨yonder⟩-sou
'I come from where I have fixed this.'

(991) O tsáá tahmɨ́ɨ́né o ímíbájchótsihdyu.

ò tsʰáːʔ [tʰᴳàʔ mɨ́ːnɛ́ ò ˢímípáˣʧʰó]-tsʰìʔ-tʲɯ̀
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 (-ri) '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 -tsʰi(ː) ⟨place⟩ is realized as [ʔ] before -β(ʲ)ɯ 'goal' and -tʰɯ 'source', as seen in 989 and 991.

(992) Mítyane iwákímeíñeri táñahbe pávyeenúhi.

[mítʲʰà-nɛ̀ ì kpa̰kʰímɛ̰́í]-ɲɛ̀-rì tʰá Ⓖ ɲa̰-ʔpɛ̀
much-⟨ø⟩ self work -⟨ø⟩-oblIn my sib-⟨SgM⟩

pʰáβʲɛ̀ːnúɯ-ʔì ‘By working a lot, my brother tired.’
tire-⟨t⟩

(993) Mítyane iwákímeíñeri chémeébe.

[mítʲʰà-nɛ̀ ì kpa̰kʰímɛ̰́í-ɲɛ̀]-rì ʧʰémɛ̀-ːpɛ̀
much-⟨ø⟩ self work-⟨ø⟩ -oblIn be.ill-⟨SgM⟩
‘He got sick by working a lot.’

17.4.3 Comparison and manner

What is structurally a relative clause headed by -tɯ (-du) ⟨like⟩ may be used as an adverbial clause indicating comparison or manner, as in 994–995:

(994) Ó imíllé dibye ímillédú o íjcyane.

ó ìmíʧé-ʔ [[tì-pʲɛ̀ ìmìʧé]-tɯ́ ò ìˣkʲʰà]-nɛ̀
I want-⟨t⟩ that-⟨SgM⟩ want -⟨like⟩ I be -⟨ø⟩
‘I want to be like he wants (that I be).’

(995) O íhjyuvádu tsáh dibye íhjyúvatúne.

[ò ìʔhʲɯ̀βá]-tɯ̀ tsʰáʔ tì-pʲɛ̀ íʔhʲɯ́βà-tʰɯ́-nɛ̀
I talk ⟨like⟩ not that-⟨SgM⟩ talk-neg-⟨n⟩
‘He does not talk like I talk.’

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 -tɯ. For example, in 996 the relative clause is headed by -ha ⟨shelter⟩, followed by -tɯ. (In this case -tɯ functions more like a case marker than a classifier. See section 10.8 regarding comparatives.)

(996) Dibye méénujádú ó méénúiyáhi.

[tì-pʲɛ̀ ø$_i$ mɛ̰ːnɯ̀]-há$_i$-tɯ́ ó mɛ́ːnɯ́-ì-já-ʔì
that-⟨SgM⟩ make -⟨shelter⟩-like I make-fut-frs-⟨t⟩
‘I want to make a house (shirt, pants,…) like he made (but I am in some way hindered from doing so).’

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, ɯ́ɯkpá:pòpɛ̀ in the relative clauses in 997a and b bears high tone on the first syllable, as does ɯ́ɯkpà:pónɛ̀ in the subordinate clause in 997c. By contrast, the nonfinite verb ɯ̀ɯkpá:pò-:pɛ̀ 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.)

(997) a. Jóáake úwááboobe tsááhi.
[ø$_i$ hóáà-k^{h}ɛ̀ s̊ɯkpá:pò]-:pɛ̀$_i$ ts^{h}á:-ʔì
John-objAn teach -⟨SgM⟩ came-⟨t⟩

b. Diibye Jóáa úwááboobe tsááhi.
tì-:p^{j}ɛ̀$_i$ Ⓐ [ø$_i$ hóáà s̊ɯkpá:pò]-:pɛ̀$_i$ ts^{h}á:-ʔì
that-⟨SgM⟩ Ⓐ John teach -⟨SgM⟩ came-⟨t⟩

c. Ó ájtumɨ́ Jóáa úwaabóne.
ó á^{x}t^{h}ùmɨ́-^{ʔ} [hóáà s̊ɯkpà:pó]-nɛ̀
I see-⟨t⟩ John teach -⟨ø⟩

d. Diibye uwááboobe Jóáa tsááhi.
tì-:pʲɛ̀$_i$ Ⓐ ɯ̃̀kpá:pò-:pɛ̀$_i$ Ⓐ hóáà$_i$ tsʰá:-ʔì
that-⟨SgM⟩ teacher-⟨SgM⟩ John came-⟨t⟩

a. 'The one who$_i$ [ø$_i$ taught John] came.'
b. 'The one whom$_i$ [John taught ø$_i$] came.'
c. 'I see John teaching.'
d. 'He$_i$, the teacher$_i$, John$_i$, 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$_i$. 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 ˊ over the verb's initial syllable.)

Table 18.1 STR: relative clauses

a.	basic relative clause:	$[_{NP}\ [_{S}\ldots ø_i \ldots [_{V}\ \overset{S}{σ}\ldots]]\text{-}[_{N}\text{classifier}_i]\ ]$
b.	apposition:	NP_i Ⓐ $[_{NP}\ [_{S}\ldots ø_i \ldots [_{V}\ \overset{S}{σ}\ldots]]\text{-}[_{N}\text{classifier}_i]\ ]$
c.	head-internal or retained pronoun:	$[_{NP}\ [_{S}\ldots NP_i \ldots [_{V}\ \overset{S}{σ}\ldots]]\text{-}[_{N}\text{classifier}_i]\ ]$
d.	genitive construction:	$[_{NP}\ [_{S}\ldots ø_i \ldots [_{V}\ \overset{S}{σ}\ldots]]$ Ⓖ $[_{N}\text{classifier}_i]\ ]$

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 -Ⓛ:pɛ ⟨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 $\overset{L}{o}$:ʔíːpʲékʰɛ̀ 'dog-objAn':[1]

(998) Ó ájtumɨ́ oohííbyéke oke ɨ́hdóóbeke.
ó áˣtʰù̱mí-ˀ [ò:ʔíː:pʲé]-kʰɛ̀
I see-⟨t⟩ dog-⟨SgM⟩ -objAn

Ⓐ [$ø_i$ ò-kʰɛ̀ $\overset{S}{ɨ}$ʔtó]-ːpɛ̀-kʰɛ̀
I-objAn bite -⟨SgM⟩-objAn
'I see the dog that bit me.'

[1] Compare 998 with example 1015, page 388, in which -Ⓛkʰɛ 'objAn' does not follow $\overset{L}{o}$:ʔiːpʲɛ 'dog', and thus is the subject of the relative clause.

Compare the basic relative clause in 999 with the appositive relative clause in 1000:

(999) Ó ájtyumɬ áíívyeja.

ó á^{x}t^{jh}ùmɬ-^{ʔ} [ø$_i$ $\overset{S}{a}$íːβ^{j}è]-hà$_i$
I see-⟨t⟩ burn-sIn -⟨shelter⟩
'I saw a house that was burning.'

(1000) Ó ájtyumɬ tsaja jaá áiivyéne.

ó á^{x}t^{jh}ùmɬ-^{ʔ} ts^{h}à-hà Ⓐ [hàá $\overset{S}{a}$ìːβ^{j}é]-nè
I see-⟨t⟩ one-⟨shelter⟩ house burn-sIn -⟨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:[2]

(1001) Oohííbyé oke ɬhdoobe tsájucóóhi.

òːʔíːpʲé òk^{h}è íʔtòːpè tsʰá-hùkʰóːʔì
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. $\overset{L}{o}$ːʔíːpʲé 'dog' is a preverbal subject within the subordinate clause, while the classifier heads the phrase:

   (1002) oohííbyé oke ɬhdoóbe ...

   [òːʔíːpʲé$_i$ òk^{h}è $\overset{S}{i}$ʔtò]-ópè$_i$ '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 -Ⓛːpɛ ⟨SgM⟩ is not the subject of the subordinate clause, but heads the relative clause, occurring outside of that clause.
2. $\overset{L}{o}$ːʔíːpʲé 'dog' heads the noun phrase, which is modified by an appositive, postnominal relative clause (itself headed by a classifier):

   (1003) oohííbyé oke ɬhdoobe ...

   òːʔíːpʲé$_i$ Ⓐ [òk^{h}è $\overset{S}{i}$ʔtò]-ːpè$_i$ 'the dog that bit me…'
   dog-⟨SgM⟩ I-objAn bite -⟨SgM⟩

[2] The following is given for comparison:

òːʔíːpʲé òk^{h}è iʔtóʔì (Oohííbyé oke ɬhdóhi.) 'The dog bit me.'
dog-⟨SgM⟩ I-objAn bite-⟨t⟩

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 $\overset{L}{\text{o}}$:ʔi:pʲɛ ‘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 $\overset{L}{\text{o}}$:ʔi:pʲɛ ‘dog’ is within the modifying clause.

(1004) Oohííbyée oke ɬhdoobe cheméhi.

ò:ʔí-:pʲ$\overset{H}{\text{ɛ}}$-$\overset{L}{\underline{\text{ɛ}}}$	Ⓐ	[ø$_i$	ò-kʰɛ̀	$\overset{S}{\text{ɬ}}$ʔtò	]-:pɛ̀$_i$	tʃʰɛ̀mé-ʔì
dog-⟨SgM⟩-rem			I-objAn	bite	-⟨SgM⟩	be.ill-⟨t⟩

‘The dog that bit me (some time ago[3]) is sick.’

(1005) Oohííbye oke ɬhdoobée cheméhi.

[ò:ʔí-:pʲɛ̀	ò-kʰɛ̀	$\overset{S}{\text{ɬ}}$ʔtò	]-:p$\overset{H}{\text{ɛ}}$-$\overset{L}{\underline{\text{ɛ}}}$		tʃʰɛ̀mé-ʔì
dog-⟨SgM⟩	I-objAn	bite	-⟨SgM⟩-rem		be.ill-⟨t⟩

‘The dog that bit me (some time ago) is sick.’

In 1006a tsʰɬ́:mɛ́nɛ̀kʰɛ̀ ‘child (object)’ is the object of tʰa:po ‘cure’ and thus within the relative clause, but in 1006b, in which -kʰɛ is absent, tsʰɬ́:mɛ́nɛ̀ is the subject of the main clause:

(1006) a. [[Tsɬ́ɬ́méneke] dibye táábórotsɬ] dsɬjɬvéhi.

b. [Tsɬ́ɬ́méne] [dibye táábórotsɬ] dsɬjɬvéhi.

tsʰɬ́:mɛ́nɛ̀	a.	-kʰɛ̀
		-objAn
child	b.	-ø

tì-pʲɛ̀	tʰ$\overset{S}{\text{a}}$:pó-ɾò-tsʰɬ̀	tsɬ́hìβé-ʔì	
that-⟨SgM⟩	cure-frs-⟨child⟩	die-⟨t⟩	

a,b ‘The child that he treated died.’

[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 tì:pʲɛ̀ ‘he’.[4]

(1007) Ááneri diibye oohííbyeke dsɨ́jɨ́vétsoobe núcójpɨ́ɨ́véhi.
á:-nɛ̀-rì tì-:pʲɛ̀$_i$ Ⓐ [ø$_i$ ò:ʔí-:pʲɛ̀-kʰɛ̀
that-⟨ø⟩-oblIn that-⟨SgM⟩ dog-⟨SgM⟩-objAn

S
tsɨ́hɨ́βɛ́-tsʰò]-:pɛ̀$_i$ nʉ́kʰóˣpʰɨ́-:βɛ́-ʔì
die-caus -⟨SgM⟩ be.ashamed-sIn-⟨t⟩
‘The one who killed the dog became ashamed.’

Example 1008 is similar, where the indefinite pronoun tsʰà-:pʰì ‘one (SgM)’ is followed by an appositive relative clause:

(1008) Íjcyaabée tsaapi Jóáa imyéme íjcyaábe.
H L
íˣkʲʰà-:pɛ́$_i$-ɛ̀ Ⓐ [$_{NP}$tsʰà-:pʰì Ⓐ [$_{NP}$ [$_S$hóáà [^{G}ì mʲémɛ̀]
be-⟨SgM⟩-rem one-⟨SgM⟩ John self name

S
íˣkʲʰà]-ápɛ̀]
be -⟨SgM⟩
‘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 ájtumɨ́ tsaapi Jóáa imyéme íjcyáábeke.
ó áˣtʰʉ̀mí-ʔ [tsʰà-:pʰì Ⓐ [$_{NP}$ [$_S$[hóáà [^{G}ì mʲémɛ̀]
I see-⟨t⟩ one-⟨SgM⟩ John self name

íˣkʲʰá]-:pɛ̀]-kʰɛ̀
be -⟨SgM⟩ -objAn
‘I saw one (male) whose name is John.’

[4]Functionally tì:pʲɛ̀ is a pronoun, but its internal structure is that of a noun phrase: it is a demonstrative adjective that modifies a noun.

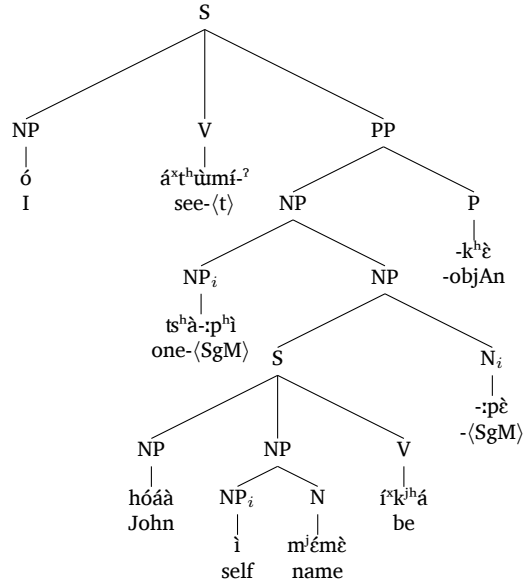


Figure 18.1 STR: Ó ájtumɨ́ tsaapi Jóáa imyéme íjcyáábeke.

In 1010 (below), tì-:p^{j}ɛ̀ does not bear -Ⓛk^{h}ɛ ‘objAn’. This might lead one to feel that it is the subject of the subordinate clause. However, note that tì-:p^{j}ɛ̀ 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 -Ⓛk^{h}ɛ ‘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:

Árónáa diibye oohííbyeke dsɨ́jɨ́vétsóóbedi ɨ́dáátsovéme.
á-ɾó-náà [tì-:p^{j}ɛ̀ Ⓐ [ò:ʔí-:p^{j}ɛ̀-k^{h}ɛ̀
thm-frs-while that-⟨SgM⟩ dog-⟨SgM⟩-objAn

tsɪ^{S}híβé-ts^{h}ó]-:pɛ̀]-tì ítá:ts^{h}ò-βɛ́-mɛ̀
die-caus -⟨SgM⟩ -anim.sou pity-sIn-⟨AnPl⟩
‘But they pitied the one who killed the dog.’

(1010) Árónáa diibye oohííbyeke dsɨ́jɨ́vétsóóbeke ɨ́daatsólléme.
á-ɾó-náà [tì-ːpʲɛ̀ Ⓐ [NP [S øi òːʔí-ːpʲɛ̀-kʰɛ̀
thm-frs-while that-⟨SgM⟩ dog-⟨SgM⟩-objAn

tsɨ́hɨ́βé-tsʰó]-ːpɛ̀i]]-kʰɛ̀ ɨ́tàːtsʰó-tʃɛ́-mɛ̀
die-caus -⟨SgM⟩ -objAn pity-treat.as-⟨AnPl⟩
'But they pitied the one who killed the dog.'

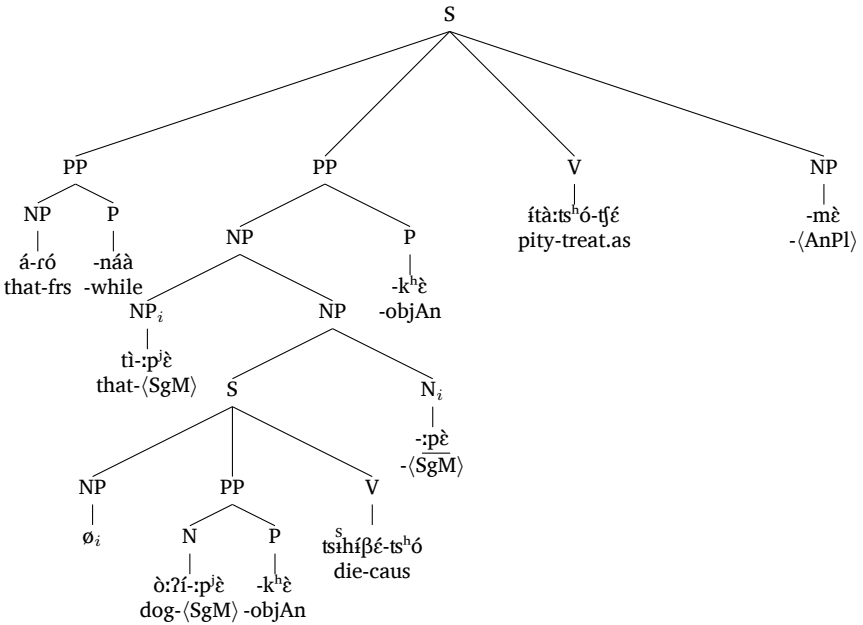


Figure 18.2 STR: Árónáa diibye oohííbyeke dsɨ́jɨ́vétsóóbeke ɨ́daatsólléme.

An appositive relative clause may be nonrestrictive, as in 1011:

(1011) Naníyo ávyeta kéémejúcóóroobe paíjyuváré wákímyeíhijcyáhi.
nàníjò Ⓐ [áβʲɛ̀tʰà kʰɛ̀ːmɛ́-hɯ́kʰóː-ɾò]-ːpɛ̀
uncle very.much be.old-now-frs -⟨SgM⟩

pʰà-íhʲɯ̀βá-ɾɛ́ kpákʰímʲɛ̀ʔ-ʔ ìˣkʲʰá-ʔì
all-day-only work-sub be-⟨t⟩
'My uncle, although he is now very old, works every day.'

Examples 1012–1014 further illustrate appositive relative clauses in the a. sentences, each case accompanied by a nonappositive alternative in the b. sentences.[6]

(1012) a. Diibye ditye úwááboobe waajácú páneére.

b. Dííbyeke ditye úwááboobe waajácú páneére.

a. tì-ːpʲɛ̀$_i$ Ⓐ [ø$_i$ tì-tʲʰɛ̀ ɯ̀ᵏpáːpò]-ːpɛ̀$_i$
that-⟨SgM⟩ that-⟨AnPl⟩ teach -⟨SgM⟩

b. [tíːpʲɛ̀$_i$-kʰɛ̀ tì-tʲʰɛ̀ ɯ̀ᵏpáːpò]-ːpɛ̀$_i$
that-⟨SgM⟩-objAn that-⟨AnPl⟩ teach -⟨SgM⟩

kpàːhákʰɯ́ pʰá-nɛ̀-ːrɛ̀
know much-⟨ø⟩-only

a,b. ‘The one whom they taught knows everything.’

(1013) a. Ímí teene pá́áa dibye májchone.

b. Pá́áa dibye májchone ímí nééneé.

a. ímíˀ tʰɛ̀ː-nɛ̀ Ⓐ [pʰáːà$_i$ tì-pʲɛ̀ mà^{x}ʧʰò]-nɛ̀$_i$
good that-⟨ø⟩ bread that-⟨SgM⟩ eat -⟨ø⟩

b. [pʰáːà$_i$ tì-pʲɛ̀ mà^{x}ʧʰò]-nɛ̀$_i$ ímíˀ né́ː-nɛ̀ɛ́
bread that-⟨SgM⟩ eat -⟨ø⟩ good say-⟨ø⟩

a,b. ‘The bread that he ate was good.’

(1014) a. Pɨ́pá tétsii dibye pá́áa májchotsíi.

b. Pá́áa di-bye májchotsíi pɨpáhre.

a. pʰɨ́pʰáˀ
wet

tʰɛ́-tsʰìː Ⓐ [tì-pʲɛ̀ pʰáːà má^{x}ʧʰò]-tsʰíî
that-⟨place⟩ that-⟨SgM⟩ bread eat -⟨place⟩

b. [pʰáːà tì-pʲɛ̀ má^{x}ʧʰò]-tsʰíî pʰɨ̀pʰáˀ-ʔrɛ̀
bread that-⟨SgM⟩ eat -place wet-only

a,b. ‘The place where he ate the bread was wet.’

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

[6]Example 327, page 165, corresponds to 1012 but with relativization into the subject rather than object.

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 ò:ʔí:pʲé 'dog'. (Compare 998, page 381, and the discussion therewith.)

(1015) Ó ájtumɨ́ oohííbyé oke ɨ́hdóóbeke.

ó á^{x}t^{h}ʉ̀umí-^{ʔ} [ò:ʔí-:pʲé$_{i}$ ò-k^{h}è ^{S}ɨ^{ʔ}tó]-:pè$_{i}$-k^{h}è
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 è:kpà 'that plank' in 1016:

(1016) Oke d*aa*cu eew*a* éé*já* lliiñe íjcy*a*w*á*vu.

ò-k^{h}è t-à:k^{h}ʉ̀ [è:-kpà$_{i}$ Ⓐ
I-objAn youImp-give that-⟨slab⟩

[[é:-há Ⓖ ^{L}tʃɪ:ɲɛ̀] ɪ́^{x}k^{jh}à]-kpá$_{i}$]-βʉ̀
that-⟨shelter⟩ below be -⟨slab⟩ -thm
'Give me the plank that is under that house.'

è:kpà '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 wáñehjɨ́núíyóné ijtyámú…

[$_{NP}$ [$_{S}$ámúʔts^{h}ì-k^{jh}é-nɛ̀ ò kpáɲɛ̀^{ʔ}hí-nú-í-jó]-né]
you.DuM-objAn-?? I festival-do-fut-frs -⟨ø⟩

^{G}ɪ́^{x}t^{jh}á-mʉ́
starch-plAn
'…the starch with which I would have honored you with a festival…'

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 [kpàɲɛ́ʔhí ɪ^{G}^{x}tʲ^{jh}á-mʉ̀ɹ] (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 wákímeííbye.
mítʲʰà-nɛ̀ kpákʰímɛ̀í-ːpʲɛ̀ '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 wákímeííbye tsájucóóhi.
[mítʲʰà-nɛ̀ ø$_i$ kpa^{s}kʰímɛ̀í]-ːpʲɛ̀$_i$ tsʰá-hʉ̀kʰóː-ʔì
much-adv work -⟨SgM⟩ come-now-⟨t⟩
'The one who works a lot comes now.'

(1020) Téhulle wákímyeíhíjcyaabe tsááhií.
[tʰɛ́-ʔʉ̀ɯʧɛ̀ ø$_i$ kpa^{s}kʰímʲɛ̀í-ʔ íˣkʲʰà]-ːpɛ̀$_i$ tsʰáː-ʔìː
that-⟨yonder⟩ work-sub be- ⟨SgM⟩ come-⟨t⟩-emph
'The one who always works over there came.'

(1021) Oohííbyeke dsɨjɨvétsoobe tsúúca péjucóó ihjyávu.
[ø$_i$ òːʔíː-pʲɛ̀-kʰɛ̀ tsɨ^{s}híβɛ́-tsʰò]-ːpɛ̀$_i$
dog-⟨SgM⟩-objAn die-caus -⟨SgM⟩

tsʰɯ́ːkʰà pʰé-hɯ̀kʰóː-ʔì i^{G}ʔ hʲá-βɯ̀
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 wákímeííbyeke ó ahdóhi.

[ø$_i$ mítʲʰà-nɛ̀ kpa̠kʰímɛ̀í]-ːpʲ$_i$ɛ̀-kʰɛ̀ ó àʔtó-ʔì
much-adv work -⟨SgM⟩-objAn I pay-⟨t⟩
'I paid the man who worked a lot.'

(1023) Oohííbyeke dsɬjɬvétsóóbeke ó uhbáhi.

[ø$_i$ òːʔí-ːpʲɛ̀-kʰɛ̀ tsi̠hɬβé-tsʰó]-ːpɛ̀$_i$-kʰɛ̀ ó ɯ̀ʔpá-ʔì
dog-⟨SgM⟩-objAn die-cause -⟨SgM⟩-objAn 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) Oohííbyeke dsɬjɬvétsóóbedítyú tsijtye ihjyúváhi.

[ø$_i$ òːʔí-ːpʲɛ̀-kʰɛ̀ tsi̠hɬβé-tsʰó]-ːpɛ̀$_i$-tí-tʲʰɯ́
dog-⟨SgM⟩-objAn die-cause -⟨SgM⟩-anim-sou

tsʰì-ˣtʲʰɛ̀ ìʔhʲɯ́βá-ʔì
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 wákímeíbyema péjúcoóbe.

[ø$_i$ tí-ːpʲɛ̀$_k$-mà kpa̠kʰímɛ̀í]-ːpʲɛ̀$_i$-mà pʰé-hɯ́kʰò-ːpɛ̀$_k$
that-⟨SgM⟩-with work -⟨SgM⟩-with go-now-⟨SgM⟩
'He$_k$ went with the one$_i$ who works with him$_k$.'

[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.

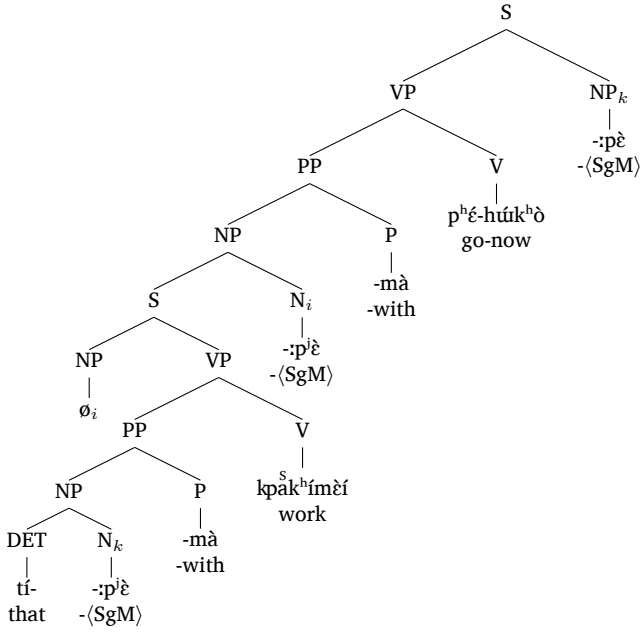


Figure 18.3 STR: Dííbyema wákímeíbyema péjúcoóbe.

Other examples of relativization into the subject follow.

(1026) Diibye pá́á́a májchoobe péjucóó.

tì-:pʲɛ̀ Ⓐ [ø$_i$ pʰá:à maˢˣʧʰò]-:pɛ̀$_i$ pʰé-hʊ̀kʰó:-ʔì
that-⟨SgM⟩ bread eat -⟨SgM⟩ go-now-⟨t⟩
'He that ate the bread has gone.'

(1027) Tsɨ́ɨ́meke muha meúwaabómé tsá tsíñéhjɨ́ri meíjcyatúne.

[tsʰɨ́:mɛ̀-kʰɛ̀ mʊ̀ʊʔà mɛ̀ ʊ̀ˢkpà:pó]-mɛ́ tsʰaᴴʔ
children-objAn we SAP teach -⟨AnPl⟩ not

tsʰí-ɲɛ́-ʔhí-ɾì mɛ̀ íˣkʲʰà-tʰʊ́-nɛ̀
other-⟨ø⟩-pl-oblIn SAP be-neg-⟨n⟩
'We who teach children do not get involved in other things.'

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

relativization is into the direct object. Compare this to 1029, in which relativization is into the subject.

(1028) Táñahbe májchótsoobe péjucóóhi.

[tʰá Ⓖ ɲa-ˀpè^{L} ø$_i$ ma^{S}ˣʧʰó-ʦʰò]-ːpè$_i$ pʰé-hùkʰóː-ʔì
my sib-⟨SgM⟩ eat-caus -⟨SgM⟩ go-now-⟨t⟩
'The one (SgM) that my brother fed has now gone.'

(1029) Táñáhbeke májchótsoobe péjucóóhi.

[ø$_i$ tʰá Ⓖ ɲá-ˀpè-kʰè ma^{S}ˣʧʰó-ʦʰò]-ːpè$_i$
my sib-⟨SgM⟩-objAn eat-caus -⟨SgM⟩

pʰé-hùkʰóː-ʔì
go-now-⟨t⟩
'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 -ːpɛ ⟨SgM⟩, 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 -nɛ ⟨ø⟩ (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 oohííbyeke iájtyúmɬɬbedívú oke ajcúhi.

b. Táñahbe pááa iájtyúmɬnévú oke ajcúhi.

tʰá Ⓖ ɲa^{G}-ˀpè$_k$ (my sib-⟨SgM⟩)
{ a. [òːʔíː-ːpʲè$_i$-kʰè (dog-⟨SgM⟩-objAn)
{ b. [pʰáːà$_i$ (bread)

ì$_k$ a^{S}ˣtʲʰúmɬ]-ːpè$_i$-tí-βúɪ
self find -⟨SgM⟩-anim-thm
ì$_k$ a^{S}ˣtʲʰúmì]-né$_i$-βúɪ
self find -⟨ø⟩-thm
} ò-kʰè àˣkʰúɪ-ʔì
I-objAn give-⟨t⟩

'My brother$_k$ gave me { a. the dog he$_k$ found / b. the bread he$_k$ found } .'

Further examples of relativization into the direct object follow. (See also 366, page 178.)

(1031) Óóma u dsɬjcójama ó peé wañéhjɨvu.
[ó:-mà ù ø$_i$ tsɬ^{x}k^{h}ó]-hà$_i$-mà[8]
I-with you sew -⟨shelter⟩-with

ó p^{h}è-é-^{ʔ} kpàɲé^{ʔ}hì-βù
I go-fut-⟨t⟩ festival-goal
'I will go to the festival with the clothes (shirt, pants,…) you sewed for me.'

(1032) Táwajyámúu o dsɬjcoja tsúúca nójcanúhi.
[t^{h}á Ⓖ kpa^{G}h^{j}á^{H}mɯ-ɯ^{L}]$_i$ Ⓐ [ò ø$_i$ tsɨ^{Sx}k^{h}ò]-hà$_i$
my clothes-rem I sew -⟨shelter⟩

ts^{h}ú:k^{h}à nó^{x}k^{h}ànú-ʔì
already deteriorate-⟨t⟩
'The clothes that I sewed are now deteriorated.'

Recall that we claimed in section 10.3.2 that a^{x}k^{h}ɯ 'give' obligatorily undergoes inversion, the recipient being marked as a direct object and the theme (what is given) being marked with -βɯ '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 -βɯ '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:[9]

(1033) Okée u ájcúwari ó wákímyeíhi.
[ò-k^{h}^{H}ɛ́-^{L}ɛ́ ù ø$_i$ ^{S}á^{x}k^{h}ú]-kpà$_i$-ɾì ó kpák^{h}ím^{j}èí-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.
[ò-k^{h}^{H}ɛ́-^{L}ɛ́ ù ø$_i$ ^{S}á^{x}k^{h}ú]-kpà$_i$-t^{h}ù ó mè:nú-ʔì
I-objAn-rem you give -⟨slab⟩-sou I make-⟨t⟩

ʧɛ́:ʔò-kpà
door-⟨slab⟩
'I made a door with the plank you gave me (some time ago).'

[8] In 1031 -ma 'with' is used rather than -ɾi '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.)

[9] See also example 438, 203.

(1035) Cáraca táñáhbeke o ájcuube dsɬjɨvéhi.

kʰáràkʰà Ⓐ [[tʰá Ⓖ ɲá-ʔpɛ̀]-kʰɛ̀ ø$_i$ ò a̰ˢˣkʰṵ̀]-ːpɛ̀$_i$
chicken my sib-⟨SgM⟩ -objAn I give -⟨SgM⟩

tsɬhɨ̀βɛ́-ʔì
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 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(:)- (*aa*-) 'thematic' and at least one following morpheme. When a(:)- 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(:)- 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)

	singular	dual	plural
masculine	à:-pɛ̀ (*aá*be) 'he'	à:-mʊ́tsʰì (*aa*mʊ́tsi) 'those two (masc.)'	à:-mɛ̀ (*aá*me) 'they'
feminine	à:-ʧɛ̀ (*aá*lle) 'she'	à:-mʊ́pʰɨ̀ (*aa*mʊ́pɨ) 'those two (fem.)'	

The inanimate connectives are formed with a(:)- 'thematic' and an inanimate classifier.[1] The classifier may be followed by -ːkʰɯ 'duIn' or -ˀ⁽ˀ⁾hɨ 'plural'. Examples follow.

(1036) a. à:-ʔɛ̀ (*aa*he) 'that tree'
thm-⟨tree⟩
b. á-ʔɛ̀ː-kʰʊ̀ɯ (*á*heécu) 'those two trees'
thm-⟨tree⟩-du
c. á-ʔɛ̀-ˀhɨ́ (*á*hehjɨ) 'those trees'
thm-⟨tree⟩-pl

(1037) a. à:-ʞpà (*aa*wa) 'that slab (plank, bench, machete,…)'
thm-⟨slab⟩
b. á-ʞpà-ːkʰʊ̀ɯ (*á*waacu) 'those two slabs (planks, tables, machetes,…)'
thm-⟨slab⟩-du
c. á-ʞpà-ˀhɨ́ (*á*wahjɨ) 'those slabs (planks, benches, machetes,…)'
thm-⟨slab⟩-pl

(1038) a. á-ʔà:mɨ́ (*á*haámɨ) 'that leaf (paper, book,…)'
thm-⟨leaf⟩
b. á-ʔà:mɨ́-kʰʊ̀ɯ (*á*haamɨ́cu) 'those two leaves (paper, book,…)'
thm-⟨leaf⟩-du
c. á-ʔà:mɨ́-hɨ́ (*á*haamɨ́jɨ) 'those leaves (papers, books,…)'
thm-⟨leaf⟩-pl

[1] Because these are inanimate, they never bear -Ⓛkʰɛ 'objAn' nor -⁽ˀ⁾ti 'benefactive'.

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 19.2 Common adverbial connectives

à-ʔtɯ̀	(ahdu)	'in that way'
thm-⟨like⟩		
á-ìhʲɯ̀	(áijyu)	'at that time'
thm-⟨time⟩		
á:-né-ʧì:	(áánéllii)	'for that reason'
thm-⟨ø⟩-motive		
à:-nɛ̀	(aane)	'then'
thm-⟨event⟩/-⟨ø⟩		
á-ɾó-náà	(árónáa)	'but'
thm-frs-while		
á-tsʰì-ʔtʲɯ̀	(átsihdyu)	'from that place'
thm-⟨place⟩-sou		
á:-náà	(áánáa)	'meanwhile'
thm-while		
á-ʔàˣʧʰó-tʰà	(áhajchóta)	'for that time/distance'
thm-⟨duration⟩-relating.to		

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) ò:í-:pʲé tsì:né-ʔì (Ooííbyé dsɨ́néhi.) 'The dog runs.'
dog-⟨SgM⟩ run-⟨t⟩

(1040) á:nɯ̀ ʧʰèmé-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 à:ʧɛ́βáà.[2]

(1041) Tsáápilléváa bádsɨjcaja awáhi.
Aalléváa paíjyuváré pehíjcyá úmɨhévú íhmaahóma.

tsʰá:-pʰìʧɛ́-βa̋-à̋ pátsɨ́ˣkʰà-hà àkpá-ʔ
one-⟨SgF⟩-rpt-rem adolescentF-sg diet-⟨t⟩a

à:-ʧɛ́-βa̋-à̋ pʰà-íhʲù̵-βá-ɾɛ́ pʰɛ̀-ʔ íˣkʲʰá-ʔì
thm-⟨SgF⟩-rpt-rem all-⟨time⟩-pl-only go-sub be-⟨t⟩

ú̵mɨʔɛ́-βú̵ ɪ́ʔ mà:ʔó-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 íñuujúwa. Ááwavúváa pícyoíñuube…
…mè:nú̵-ʔ ɪ́ ɲù̵:hú̵-kpà
make-⟨t⟩ self shelter-⟨slab⟩

á:-kpà-βú̵-βa̋-à̋ pʰíkʲʰò-íɲù̵-: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.

[2]The 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.

(1043) M-ɬɬhenéváa ávyéjuube tsajtyé cóómívuú.

Áánemáváa wájyamu újcuúbe. Aajáváa tsajtyéébé ihjyávu.

mí:ʔè-né-βa-a áβʲɛ́hù-:pè tsʰàˣtʲʰɛ́-ʔ kʰó:mí-βùɯ́
skin-pl-rpt-rem reign-⟨SgM⟩ take-⟨t⟩ town-goal

á:-nè-má-βá-à kpáhʲàmù ɯ́ˣkʰù-:pè
thm-⟨ø⟩-with-rpt-rem cloth get-⟨SgM⟩

à:-há-βa-a tsʰàˣtʲʰɛ́-:pɛ́ ì ʰʲá-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 -ⓛkʰɛ '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.

tsʰá-ìhʲɯ́-ì ó pʰè-ɛ́-ʔ tʰá ɪ:ɲɯ́-hɨ-βù
one-⟨time⟩-PT I go-fut-⟨t⟩ my dirt-⟨disk⟩-goal
'At some time I will go to my country.'

(1045) Aabe ó wáyéééveéhi.[4]

à-:pè ó kpájɛ́ɛ́-:βè-ɛ́-ʔì
thm-⟨SgM⟩ I rest-sIn-fut-⟨t⟩
'Then I will rest.'

(1046) Áábeke táátsɨɬju ɨɬcúveéhi.

á-:pè-kʰɛ̀ tʰá: Ⓖ tsʰɨ́:hù ɨ:kʰɯ́-βè-ɛ́-ʔì
thm-⟨SgM⟩-objAn my mother serve-sIn-fut-⟨t⟩
'My mother will serve me (food).'

[3]Note that the tone on à:- in 1045 is low. However, in 1046 and 1047, it must become high to avoid violating the *LLX constraint.

[4]The sequence ééé is orthographically ambiguous between /ɛ́ɛ́:/ and /ɛ́:ɛ́/. 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 éee sequence of ó wáyéeevéhi 'I rest' is /ɛ́è:/. This is as expected because morphophonemically the sequence is /ɛ́è-:/, with the length contributed by -:βɛ '-sIn'.

(1047) Áábedi óhdi tsijtye ɬdáátsóveéhi.
á-:pɛ̀-tì ó-ʔtì
thm-⟨SgM⟩-anim.sou I-anim.sou

tsʰì-ˣtʲʰɛ̀ ɬtá:tsʰó-βɛ̀-é-ʔì
other-⟨AnPl⟩ pity-sIn-fut-⟨t⟩
'And others will have compassion for me.'

Example 1044 does not begin with a connective because it initiates the discourse. In 1045, à:pɛ̀ refers to the subject of 1044. In 1046, á:pɛ̀kʰɛ̀ refers to the subject of 1045, bearing -Ⓛkʰɛ 'objAn' because it is the direct object of 1046. In 1047, á:-pɛ̀-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 tsahe mútsɬɬtsɬhe táhjyá úníutu.
Aahe tsúúca neeváhi.

é-ìhʲɯ́-pʰɛ̀ ó pàˣtsʰó-ʔ tsʰà-ʔɛ̀ múɯtsʰí:tsʰì-ʔɛ̀
that-⟨time⟩-rem I plant-⟨t⟩ one-⟨tree⟩ pear.apple-⟨tree⟩

[[tʰá ʔ Ⓖ hʲá] Ⓖ ɯ̃́níùɯ]-tʰùɯ à:-ʔɛ̀ tsʰɯ́:kʰà nɛ̀:βá-ʔì
my house beside -sou thm-⟨tree⟩ already fruit-⟨t⟩.
'Some time ago I planted one pear apple tree beside my house. That tree is already bearing fruit.'

(1049) Úméhewááné ó nahjɬheenúhi.
Ááwáhjɬtu ó méénuú ácúvewááne.

ɯ́mɛ́-ʔɛ̀-kpá:-nɛ́ ó nàʔhíʔɛ̀-:nɯ́-ʔì
tree-⟨tree⟩-⟨slab⟩-pl I buy-sTr-⟨t⟩

á:-kpá-ʔhì-tʰùɯ ó mɛ́:nùɯ-ɯ́-ʔ àkʰɯ́βɛ̀-kpá-:nɛ̀
thm-⟨slab⟩-pl-sou I make-fut-⟨t⟩ sit-⟨slab⟩-pl
'I bought some boards. With those boards I will make benches.'

(1050) Juuváríyée ó ájtyumɬ waajácúhaamɬcu.
Áhaamɬcúu ó tsajté ááhɬvu.

hùɯ:βá-ɾí-jɛ̀-ɛ̀ ó áˣtʲʰùmí-ʔ kpà:hákʰɯ́-ʔà:mí-kʰùɯ
trail-oblIn-only-rem I see-⟨t⟩ know-⟨leaf⟩-du

á-ʔà:mí-kʰɯ̋f-ɯ̀ ó tsʰàˣtʰé-ʔ á:ʔì-βɯ̀
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, á:nétʃì: indicates that the first sentence is the reason or motive for the second:

(1051) Ihjyúijyu ó cheméhi. Áánéllii tsáhái o májchotú(ne).
ìʔhʲɯ́-ìhʲɯ̀ ó tʃʰèmé-ʔì
yesterday-⟨time⟩ I be.ill-⟨t⟩

á:-né-tʃì: tsʰǎʔá-ì ò máˣtʃʰò-tʰɯ́-(nè)
thm-⟨ø⟩-motive neg-PT I eat-neg-(⟨n⟩)
'I was sick yesterday. For that reason I have not yet eaten.'

In the second sentence of 1052, árónáà indicates 'in spite of that', referring to the event indicated by the preceding sentence:

(1052) Áijyúu táñaalle tsivá cahgúnuco.
Árónáaacáa tsá o ímílletú o ádone.

á-ìhʲɯ̋-ɯ̀ tʰá Ⓖ ɲa̋:-tʃè tsʰìβá-ʔ
thm-⟨time⟩-rem my sib-⟨SgF⟩ bring-⟨t⟩

kʰàʔkɯ́nɯ̀-kʰò
manioc.drink-⟨InSg⟩

á-ɾó-náà:kʰǎ-à tsʰǎʔ ò ímítʃè-tʰɯ́ [ò ȃtò]-nè
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 táiiñújɨvu.
ó-pʰéè ò̲ pʰé:-ʔ [tʰá ı̋:ɲɯ́-hɨ̀]-βɯ̀ 'I went to
I-rem I go-⟨t⟩ my dirt-⟨disk⟩ -goal my country.'

(1054) Áábekée táñahbe ímí waatsúcúpejtsóhi.
á-:pè-kʰɛ̋-ɛ̀ [tʰá Ⓖ ɲà-ʔpè]
thm-⟨SgM⟩-objAn-rem my brother

ímíˀ kpà:tsʰúɪ-kʰúɪ-pʰɛ̀ˣtsʰó-ʔì
good receive-sTr-find-⟨t⟩
'My brother received me well.'

(1055) Áijyúu mítyane muhtsi méihjyúvájcatsíhi.
á-ìhʲ-ɯ̄-ɯ̀ mítʲʰà-nɛ̀ mɯ̀ˀtsʰì mɛ́ ìˀhʲɯ́βá-ˣkʰàtsʰí-ʔì
thm-⟨time⟩-rem many-⟨ø⟩ we.du SAP speak-recip-⟨t⟩
'At that time we talked about many things.'

(1056) Áhdurée táñaalle tsáá tétsihvu.
á-ˀtɯ̀-ɾɛ̀-ɛ̀ [tʰá ⓖ ɲà:-ʧɛ̀] tsʰá:-ˀ
thm-⟨like⟩-only-rem my sib-⟨SgF⟩ come-⟨t⟩

tʰɛ́-tsʰì-ˀβɯ̀
that-⟨place⟩-goal
'My sister also came there.'

(1057) Aallée múhtsima majcho meenúhi.
à:-ʧɛ̀-ɛ̀ mɯ́ˀtsʰì-mà màˣʧʰò mɛ̀:nɯ́-ʔì
thm-⟨SgF⟩-rem we.du-with food prepare-⟨t⟩
'And she prepared the food for us.'

(1058) Aanée muhtsi mémajchóhi.
à:-nɛ̀-ɛ̀ mɯ̀ˀtsʰì mɛ́ màˣʧʰó-ʔì
thm-⟨ø⟩-rem we.du SAP eat-⟨t⟩
'And we ate it.'

In 1054, á:pɛ̀kʰéɛ̀ refers to the subject of 1053, and it is the direct object of 1054. In 1055, áìhʲúɪɯ̀ refers to the time of 1054, and functions as a time adverbial in 1055. In 1056, á-ˀtɯ̀ɾéɛ̀ refers to something that also happened at that time. In 1057, à:ʧéɛ̀ refers to the subject of 1056, and is the subject of 1057. In 1058, à:néɛ̀ refers to the time after 1057, and functions as a time adverbial in 1057.

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-:pɛ̀ (that-⟨SgM⟩):

(1059) *Jóáa péé cóómívuú. Aabe ichéménéllii tsá ɬɬcúi tsáátune.*

hóáà pʰɛ́ː-ʔ kʰóːmí-βʉ̀ʉ́ú · à-ːpɛ̀$_i$
John go-⟨t⟩ town-goal that-⟨SgM⟩

[ì$_i$ tʃʰɛ́^{S}mɛ́]-né-tʃìː tsʰáʰ^{H}ʔ ɾːkʰʉ́ʉ̀ì tsʰáː-tʰʉ̀ʉ-nɛ̀
self sick- ⟨ø⟩-because not hurry come-neg-⟨n⟩
'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-ɾò-ːpɛ̀ (that-frs-⟨SgM⟩), is understood as the subject of the subordinate clause.

(1060) a. *Jóáa wajtsɬhi. Ároobe ó imíllé dibye pééneé.*

b,c. *Jóáa wajtsɬhi. Ároobe pééne ó imílléhi.*

hóáà$_i$ kpàˣtsʰɪ́-ʔì
John arrive-⟨t⟩

a. á-ɾò-ːpɛ̀$_i$ ó ìmítʃɛ́-ʔì [tì-pʲɛ̀$_i$ pʰɛ̃^{S}ː]-nɛ̀ɛ́
that-frs-⟨SgM⟩ I want-⟨t⟩ that-⟨SgM⟩ go -⟨ø⟩

b. [á-ɾò-ːpɛ̀ pʰɛ̃^{S}ː]-nɛ̀ ó ìmítʃɛ́-ʔì
that-frs-⟨SgM⟩ go -⟨ø⟩ I want-⟨t⟩

c. á-ɾò-ːpɛ̀$_i$ [ø$_i$ pʰɛ̃^{S}ː]-nɛ̀ ó ìmítʃɛ́-ʔì
that-frs-⟨SgM⟩ go -⟨ø⟩ I want-⟨t⟩

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-pʲɛ as the subject of pʰɛ̃^{S}ː '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 occurr 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 dííllé kemúellére. (2) Aaméváa ɨɨténáa teene cátuujɨ ityábáhcyóné lléhdollére pééhií. (3) Aanéváa diityéké iájtyúmɨne tsane ɨdɨbéévéne wááménelle cáámevújuco, tsúúca núlledívú píívyetélleréjuco. (4) Aanéváa diitye úúballévá...

...(1) à:-mé-βá-à pʰé:-ʔ tí:-ʧɛ́ kʰèmúɪ̀-èʧɛ́-ɾè. (2) à:-mé-βá-à ɨ́:tʰé-náà tʰè:-nὲ kʰátʰù:hì ì-tʲʰápá-ʔkʲʰó-né ʧɛ́ʔtò-ʧɛ́-ɾé pʰé:-ʔìí. (3) à:-né-βá-à tì:-tʲʰé-kʰé ì-á˟tʲʰɪ́mí-nὲ tsʰà-nὲ ì-tɪ́pé-:βé-nὲ kpá:mɛ́nὲ-ʧὲ kʰá:mὲ-βɪ́ɪ-hɪ̀ɪkʰò, tsʰɪ́ɪ:kʰà nɪ́ɪʧὲ-tí-βɪ́ɪ pʰí:βʲὲ-tʰé-ʧὲ-ɾé-hɪ̀ɪkʰò. (4) à:-né-βá-à tì:-tʲʰὲ ɪ́ɪ:pàʧɛ́-βá-ʔ...

...(1) Then they went after her at a distance. (2) While they were looking she pulled up some *ñejilla* 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 à:-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 ì '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 à:-né-βá-à simply means 'then'.) In the fourth sentence, the people are reestablished as topic by means of the pronoun tì:-tʲʰὲ (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) Ehdúv*áa* nééllere tsehdí íjcyujúw*á* llíjyutu.
Áhejúriv*áa* dityépɨ́ péjúcóórónáa óómille…

è^{ʔ}-tú-β$^{H\ L}$á-à nɛ^{S}ː-ʧè-ɾè tsʰè^{ʔ}tí-ʔì í ^{x}kʲʰ^{G}ʉ́hú́kpá
that-⟨like⟩-rpt-rem say-⟨SgF⟩-only dig-⟨t⟩ self fire

ʧíhʲʉ̀-tʰʉ̀ ɯ́ á-ʔɛ̀hú́-rì-β$^{H\ L}$á-à tì-tʲʰɛ́pʰɨ́
ashes-sou thm-⟨hole⟩-oblIn-rpt-rem that-⟨DuF⟩

pʰ^{S}ɛ́-hú́kʰóː-ɾó-náà óːmì-ʧè…
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 ʉ̀ pʰé-hʉ̀kʰóː-ʔì (¿A u péjucóó?) 'Are you going now?'
y*ɲ* you go-now-⟨t⟩

(1063) tsʰ^{H}áʔá-ìíkʲʰè (Ts*áháiíkye*.) 'Not yet (but soon).'
not-PT

In 1064, the verb of the second clause is ellipsed:

(1064) Aane tsaíjyú ménijtyú teene ɨtsɨtsɨɨne; téhdure tsaíjyú óónováne.

à:-nɛ̀ tsʰà-íhʲɯ́ mɛ́ nìˣtʲʰɯ́-ʔ tʰɛ̀:-nɛ̀ Ⓐ ɨ́ tsʰɨ̰ɨtsʰɨ́:-nɛ̀
thm-⟨ø⟩ one-⟨time⟩ SAP wash-⟨t⟩ that-⟨ø⟩ self white-⟨ø⟩

tʰɛ́-ʔtɯ̀-ɾɛ̀ tsʰà-íhʲɯ́ _____ ó:nòβá-nɛ̀
that-⟨like⟩-only one-⟨time⟩ colored-⟨ø⟩
'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.

GLOSS	Íñeje	Báácoje	Llívamu
1 to put	pʰìkʲʰò	pʰìkʰò	pʰìkʰò
2 my watch	tʰàɲúʔpà	tʰànúʔpà	tʰànúʔpà
3 hammock	kpàápʲà	kpàápà	kpàápà
4 rope	kpá:pʲàɯ̀	kpá:pàɯ̀	kpá:pàjɯ̀
5 needle	ánèétʰò	ánèˣtʰò	ánèˣtʰò
6 needles	ánètʰó:nè	ánèˣtʰónè	ánèˣtʰónè
7 to clean	pʰà:hʲúkʰɯ̀	pʰà:hʲúkʰɯ̀	pʰà:húkʰɯ̀
8 to hurt	àβʲéβè	àβʲéβè	àβéβè
9 to be exchanged	kʰápʰàjó:βè	kʰápʰàjó:βè	kʰápʰàó:βè
10 to exchange	kʰápʰájòákʰò	kʰápʰájòákʰò	kʰápʰáòákʰò
11 chief	áβʲéhɯ̀púpè	áβʲéhɯ̀púpè	áβéhɯ̀púpè
12 water	núˣpʰàkʲʰò	núˣpʰàkʲʰò	núˣpʰàkʰò
13 to burn	àí:βʲè	àí:βʲè	àí:βè
14 to fall	à:kʰítʲʰè	à:kʰítʲʰè	à:kʰítʰè
15 to bring	tsʰìβà	tʃʰìβà	tsʰìβà
16 me	òkʰè	òkʲʰè	òkʰè
17 I come	ò tsʰáhɯ̀kʰó:	ò tsʰáhàkʰó:	—
18 we	mɯ̀ʔtsʰì	mɯ̀ʔtʃʰì	mɯ̀ʔtsʰì
19 to be burned	àˣtʲʰè	àˣtʰè	àˣtʰè
20 porcupine	áɲí:ɲìpà	áɲí:nìpà	—
21 nail	àɲúí:ʔʲò	àɲúhí:ʔò	—
22 tarantula	à:ɾíkʲʰò	à:ɾíkʰò	à:ɾíkʰò

GLOSS	Íñeje	Báácoje	Llívamu
23 liquor	áβʲɛ̀ˣpʰákʲʰò	áβʲɛ̀ˣpʰákʲʰò	áβɛ̀ˣpʰákʰò
24 to yawn	ákpàkʰúnʉ̀	ákpàkʲʰúnʉ̀	ákpàkʰúnʉ̀
25 to stir	pòɾíˣkʲʰò	pòɾíˣkʰò	pòɾíˣkʰò
26 who	kʰà:pʲé	kʰà:pé	kʰà:pé
27 flood	núˣpʰàpʲà	núˣpʰàpà	núˣpʰàpà
28 to heat	kʰàɾúʔkʰò	kʰàɾíʔkʰò	—
29 cup	kʰànɛ́kʰò	kʰànúkpà	—
30 to jump	kʰátsʰìɲí:βʲè	kʰátʃʰìní:βè	—
31 my leg	tʰàˣkʲʰúpà	tʰàˣkʰúpà	tʰàˣkʰúpà
32 pineapple plant	kʰútʃìíkʲʰò	kʰútʃìíkʰò	kʰútʃìíkʰò
33 to chew coca	tɛ̀íˣkʲʰʉ̀	tɛ̀íˣkʰʉ̀	tɛ̀íˣkʰʉ̀
34 spoon	tɛ̀íhʉ̀kpà	tɛ̀íhʲʉ̀kpà	tɛ̀íhʉ̀kpà
35 guava	tʰúí:tsʰìhʲʉ̀	tʰúí:tʃʰìhʉ̀	—
36 lamp	túí:ɾúpàíʔkʲʰʉ̀	túí:ɾúpàíʔkʰʉ̀	túí:ɾúpàíʔkʰʉ̀
37 yes	é:è	hé:è	—
38 beads	íkʲʰá:βɛ̀ʔì	íkʰá:βɛ̀ʔì	—
39 now	íkʲʰòókʰà	íkʰòókʰà	íkʰòókʰà
40 to be	ìˣkʲʰà	ìˣkʰà	ìˣkʰà
41 to stand	ìhʲókʰʉ̀nʉ̀	ìhókʰʉ̀nʉ̀	ìhókʰʉ̀nʉ̀
42 to leave	ìˣtʃʰíβʲè	ìˣtʃʰíβè	ìˣtʃʰíβè
43 this day	íˣkʲʰòóhɨ	íˣkʰòóhɨ	íˣkʰòóhɨ
44 yesterday	ìíhʲʉ̀	ìíhʉ̀	ìíhʉ̀
45 his name	ìmʲémɛ̀	ìmémɛ̀	ìmémɛ̀
46 aunt	í:mʲɛ̀é	í:mɛ̀é	í:mɛ̀é
47 to finish	ìmíβʲè	ìmíβè	ìmíβè
48 to dance	kʰìˣkʲʰò	kʰìˣkʰò	kʰìˣkʰò
49 to sweep	tʃìhʲà	tʃìhà	tʃìhà
50 broom	tʃìhʲákʰó:ʔà	tʃíhákʰó:ʔà	tʃìhákʰó:ʔà
51 to get drunk	tʃíjì:kʲʰáβè	tʃíjì:kʰáβè	tʃíjì:kʰáβè
52 bowl	tʃíjìʔtʃò	tʃírìʔtʃò	—
53 cooking pot	tʃíjìíʔʲò	tʃírìíʔò	—
54 to knot a lasso	tʃóʔpʰìkʲʰáɾò	tʃóʔpʰìkʰáɾò	—
55 to joke	máˣtʃʰíhʲʉ̀ú	máˣtʃʰíhʉ̀ú	—
56 song	màˣtsʰì	màˣtʃʰì	màˣtsʰì
57 to sing	màˣtsʰíβà	màˣtʃʰíβà	màˣtsʰíβà
58 ghost	má:tsʰìí	má:tʃʰìí	—
59 he is big	mítʲʰàápè	mítʲʰàápè	mítʰàápè
60 two people	mí:tʲʰétsʰìí	mí:tʰétʃʰìí	mí:tʰétsʰìí
61 to be sad	nɛ̀ʔníβʲè	nɛ̀ʔníβè	nɛ̀ʔníβè
62 squirrel	né:pʰìkʲʰò	né:pʰìkʰò	né:pʰìkʰò
63 to climb	nɛ̀ɾí:βʲè	nɛ̀ɾí:βè	nɛ̀ɾí:βè

GLOSS	Íñeje	Báácoje	Llívamu
64 frog	níˀhʲàkpà	níˀhàkpà	níˀhàkpà
65 to mold	nìˣkʲʰò	nìˣkʰò	nìˣkʰò
66 chigger	níːkʲʰùɯ́	níːkʰùɯ́	níːkʰùɯ́
67 sky	níˣkʲʰɛ̀hɨ̀	níˣkʰɛ̀hɨ̀	níˣkʰɛ̀hɨ̀
68 to wash	nìˣtʲʰùɯ	nìˣtʰùɯ	nìˣtʰùɯ
69 soap	nìˣtʲʰɯ́kpà	nìˣtʰɯ́kpà	nìˣtʰɯ́kpà
70 porcupine	nìːhʲáùɯ	nìːháùɯ	nìːháùɯ
71 to molest	pʰátsʰàɾíˣkʲʰò	pʰátsʰàɾíˣkʰò	pʰátsʰàɾíˣkʰò
72 to gather together	pʰìˀkʲʰáːβɛ̀	pʰìˀkʰáːβɛ̀	pʰìˀkʰáːβɛ̀
73 to thunder	ɾòɾíˀkʲʰò	ɾòɾíˀkʰò	ɾòɾíˀkʰò
74 to dig	tsʰɛ̀ˀtíkʲʰùɯ	tsʰɛ̀ˀtíkʰùɯ	tsʰɛ̀ˀtíkʰùɯ
75 another	tsʰìíɲɛ̀	ʧʰìíɲɛ̀	tsʰìíɲɛ̀
76 another (male)	tsʰìˣpʰì	ʧʰìˣpʰì	tsʰìˣpʰì
77 something	tsʰíɛ̀mɛ́nɛ̀	ʧʰíɛ̀mɛ́nɛ̀	tsʰíɛ̀mɛ́nɛ̀
78 cold weather	tsʰíˀkʲʰòʔò	ʧʰíˀkʲʰòʔò	tsʰíˀkʰòʔò
79 different	tsʰíˀtʲùɾɛ̀	ʧʰíˀtɯ̀ɾɛ̀	tsʰíˀtɯ̀ɾɛ̀
80 far	tsʰíʔùɯʧɛ̀	ʧʰíɯ̀ʧʰɛ̀	—
81 to untie	tsʰíɲàájò	ʧʰínàájò	tsʰínàáɾò
82 mouse	tsʰìɲíùɯ	ʧʰìɲíùɯ	tsʰìníùɯ
83 cold place	tsʰɯ́ːkʰòtsʰíì	tsʰɯ́ːkʰòʧʰíì	tsʰɯ́ːkʰòtsʰíì
84 to become skinny	ùɯˣtsʰítʲʰɛ̀	ùɯˣʧʰítʰɛ̀	ùɯˣtsʰítʰɛ̀
85 basket	ɯ́βɛ̀ɾɯ́ˣtsʰì	ɯ́βɛ̀ɾɯ́ˣʧʰì	ɯ́βɛ̀ɾɯ́ˣtsʰì
86 to whip	kpàˀtsʰíˀkʲʰùɯ	kpàˀʧʰíˀkʰùɯ	kpàˀtsʰíˀkʰùɯ
87 hole	kpáʔʲɛ̀hùɯ	kpájɛ̀hùɯ	kpáʔɛ̀hùɯ
88 piece of log	kpáʔʲòóùɯ	kpájòóùɯ	kpáʔòóùɯ
89 cloth	kpáhʲàmùɯ	kpájhàmùɯ	—
90 to prune	kpáβìjíˣkʲʰò	kpáβìɾíˣkʰò	—
91 to come	tsʰàá	ʧʰàá	tsʰàá

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. ímìpáˣʧʰò 'fix' may derive from *imì-pa-ʧʰo (good-verbalizer-caus). Likewise, ìʔhʲúβà 'talk' may derive from *ìʔhɯ-βa mouth-verbalizer and ùrˣkʰáβà 'become fat' from *ɯˣkʰa-βa- fat-verbalizer.
3. ímíhʲù 'happy' may derive from *imi-hʲɯ (good-speech); e.g., ímíhʲù-ːβé-mɛ̀ 'they became very happy'.
4. ímìβʲé- 'finish' may derive from ímì-βʲé- (good-verbalizer). (However ímìβʲé- is a transitive verb, whereas -ːβ$^{(j)}$ɛ generally derives intransitive verbs.)
5. í kpàhʲámù 'his clothes' may derive from i kpa-ha-mɯ (self ⟨slab⟩-⟨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. maˣʧʰo 'eat (bread)' may derive from *mai-tsʰo- (bread-cause), with the /*i/ palatalizing the /ts/. Support for this is found in the word mǎ^{H}ʔo 'cassava bread'.
8. pʰíːβʲɛ̀ 'grow' may derive from pʰi-ːβɛ. The *pʰi would have been either 'body' or 'big'; the *-ːβɛ would have been either the verbalizer

'become' or 'sIn' (which, as suggested above, may have been the same morpheme).

9. -na:$\overset{L}{a}$k^{h}a 'meanwhile' may derive from *-nɛ-$\overset{L}{a}$:k^{h}a (⟨ø⟩-realize). This may be due to either a historical or a morphophonemic process.
10. -^{ʔ} i^{x}k^{jh}a[1] '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. -ts^{h}i (not palatalized) ∼ -ʧ^{h}i (palatalized) ⟨place⟩ and -ʔɯʧɛ ⟨yonder⟩ ∼ $\overset{H}{\varepsilon}$ʧɛ (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 -$^{(ʔ)}$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 ɛʧɛ in example 660, page 276.
13. ts^{h}ɨ:mɛ 'children' may derive from ts^{h}ɨ:-mɛ (baby-ANPL) where ts^{h}ɨ:- is cognate with the classifier -ts^{h}ɨ ⟨baby⟩.
14. The /hɯ/ of -Ⓛ◯h$\overset{L}{ɯ}$k^{h}o: 'now, already; focus' may be cognate with the /hɯ/ of -Ⓛ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. mi: 'two' may be cognate with -mɯ 'dual' as in -mɯts^{h}i ⟨DuM⟩ and -mɯp^{h}ɨ ⟨DuF⟩.
17. -na$\overset{L}{a}$(:k^{h}a) 'while' (discussed in section 17.3 may be derived from -nɛ ⟨event⟩ and the adverbial clitic -ha(:ca) 'realize' (listed in 11.2).
18. The pronoun m$\overset{H}{ɯ}$ɯ 'indefinite animate singular' discussed in section 14.3.2 may be cognate with -mɯ 'plAn'.
19. The suffix -Ⓛ◯ts^{h}a 'each' is probably cognate with the root ts^{h}à- '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/.

[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 ɑtérée- is atʰɛɾɛ 'worthless' followed by -ɛ- 'pertain to'.

ɑɑ- ∼ ɑ- a(:)- 'that' (thematic connective), e.g.,
á?ùɯʧè (áhulle) [adverbial thematic connective] 'that place',
áìhʲùɯ (áijyu) [adverbial thematic connective] 'that time',
à:ʧè (ɑɑlle) [pronominal thematic connective] 'that one (SgF)',
à:mè (ɑɑme) [pronominal thematic connective] 'those (AnPl)',
à:kpà (ɑɑwɑ) [pronominal thematic connective] 'that slab-like thing'
-ɾò ∼ -jò 'frs' may be added as in áɾò?á:mì (ároháámɨ) [pronominal thematic connective] 'that leaf-like thing, although it does not seem to be',
áɾónáà (áɾónáɑ) [adverbial thematic connective] 'but, however, by contrast'

ɑpɑɑ- ∼ ɑpɑ- ˩apʰà(:) 'only' (-ɾɛ always follows.) For example, àpʰá:mʲéɾɛ̀ (ɑpáámyére) [adjective] 'the only ones (AnPl)',
àpʰá?à:mɨɾɛ̀ (ɑpáhɑɑmɨre) [adjective] 'the only leaf-like thing'

[1] In 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").

atérée- àtʰérɛ́è- 'worthless, despicable', e.g.,
àtʰérɛ́èkpà (atéréewa) [adjective] 'worthless slab-like thing'

bee- ∼ be- ∼ beh- pè:- ∼ pè- ∼ pèˀ- 'new, recent', e.g.,
pɛ́:pɛ̀ɛ́ ∼ [pɛ́:pɛ̀] (béébeé ∼ [béébe]) [adjective] 'the one (SgM) that just arrived',
pèˣtʰè (bejte) [adjective] 'the new ones (AnPl)',
pèˀhà (behja) [adjective] 'the new shelter-like thing'

bɨwa- pɨkpà- 'the same as before', e.g.,
pɨkpáhà (bɨwája) [adjective] 'the same slab-like thing',
pɨkpáʔùʧè (bɨwáhulle) [adjective] 'the same place'

bóónée- pó:né-è- 'the following, after a time', e.g.,
pó:néèʔá:mɨ̀ (bóónéeháámɨ́) [adjective] 'the next leaf-like thing'

bóónétúe- pó:né-tʰúᵘ-è- 'following, behind', e.g.,
pó:nétʰúᵘèmɨ̀ (bóónétúemɨ́) [adjective] 'the next vehicle of transportation'

cóee- ∼ cóe- kʰóè:- ∼ kʰóè- 'extra, excess', e.g.,
kʰóè:mɨ̀ (cóeémɨ́) [adjective] 'the extra vehicle of transportation',
kʰóèpʰátʃì (cóepálli) [adjective] 'the extra field'

ee- ∼ e- è:- ∼ è- 'that (medial)', e.g.,
è:mɨ̀ (eémɨ́) [demonstrative pronoun] 'that (medial) vehicle of transportation',
ɛ́ʔà:mɨ̀ (éhaámɨ́) [demonstrative pronoun] 'that (medial) leaf-like thing'

eh- èˀ- 'that (distal)', e.g.,
ɛ́ˀhɨ̀ɨ́ ∼ ɛ́ˀhɨ̀ (éhjɨ́ɨ́ ∼ éhjɨ́) [demonstrative pronoun] 'that disk-like thing'

ehdícya- èˀtíkʲʰà- 'like that', e.g.,
èˀtíkʲʰà:pè (ehdícyaábe) [indefinite pronoun] 'that one (SgM) like this'

éhdɨ́ɨ́va- ɛ́ˀ-tí:βà- 'of that quality, that kind of', e.g.,
ɛ́ˀ-tí:βà-pʰá:hɨ̀ (éhdɨ́ɨ́vapáájɨ́) [adjective] 'shoe (can,…) like that one'

ehdu- è-ˀtùᵘ- 'like that (in quality, size, quantity)', e.g.,
é-ˀtùᵘ-pà (éhduba) [adjective] 'drum (trunk,…) like that one',
é-ˀtúᵘ-pà-βà (éhdúbava) [quantifier] 'that many drums (trunks,…)'

éhnéjcúe- ɛ́-ˀnɛ́ˣkʰúᵘ-è- 'that side', e.g.,
é-ˀnɛ́ˣkʰúᵘ-è-ʔì (éhnéjcúehi) [adjective] 'that side of the river'

hajcho- ʔaˣʧʰo- 'the same size, the same height, the same distance', e.g.,
ʔàˣʧʰó-:pè (hajchóóbe) 'one (SgM) who is the same height', as in example 495, page 224;
ʔàˣʧʰó-hà (hajchója) [comparative adjective] 'one ⟨shelter⟩ the same size as', as in 496, page 224.

hállúe- ʔátʃúᵘ-è- 'pertain to the upper part', e.g.,
ʔátʃúᵘ-è-kpà (hállúewa) [adjective] 'the slab-like thing on top'

hállúvúe- ʔátʃɯ́-βɯ́-è- (upper-goal-per) ‘pertain to that which is on top or next in sequence’,[2] e.g.,
ʔátʃɯ́-βɯ́-è-ʔá:mɨ̀ (hállúvúeháámɨ́) [adjective] ‘the leaf-like thing that follows (or is on top of) another’,
ʔátʃɯ́-βɯ́-è-ˣpʰì (hállúvúejpi) [adjective] ‘the next one (SgM)’

i- ∼ ɨ- ì- ∼ ɨ̀- ‘this (proximate)’, e.g.,
íhʲɯ̀ɯ́ ∼ íhʲɯ̀ (íjyuú ∼ íjyu) [demonstrative] ‘this (proximate) long thin thing (road, shotgun,…)’

íéve- íéβè- ‘empty, not in use, available, free’, e.g.,
ìéβèʔá:mɨ̀ (iévehɑ́ámɨ́) [adjective] ‘the available leaf-like thing’,
íéβèʔɛ́-hɯ̀ (íévehéju) [adjective] ‘empty hole’,
íéβè-mɨ̀ (íévemɨ́) [adjective] ‘the empty vehicle of transportation’,
íéβè-ːpè (íéveébe) [adjective] ‘the naked one (SgM)’

ihdícya- ìˀtíkʲʰà- ‘like this’, e.g.,
ìˀtíkʲʰà-mè (ihdícyame) [indefinite pronoun] ‘like these (AnPl)’,
ìˀtíkʲʰá-ìhʲɯ́-ɾè (ihdícyáijyúre) [indefinite adverb] ‘whenever’,
ìˀtíkʲʰá-ʔɯ̀tʃè (ihdícyá-hulle) [indefinite adverb] ‘wherever’

íhdyúe- íˀtʲɯ́è- ‘separate’, e.g.,
íˀtʲɯ́è-míːʔò (íhdyúemɨ́ɨ́ho) [adjective] ‘the separated hide (sheet of metal, etc.)’

illu- ìtʃɯ̀- ‘like this’, e.g.,
ítʃɯ̀-ɾò (ílluro) [demonstrative pronoun] ‘like this bottle’,
ítʃɯ́-ɾò-βà (íllúrova) [quantifier] ‘this quantity of bottles’

ímihɨ́va- ímìʔɨ́βà- ‘pretty, good’, e.g.,
ímìʔɨ́βà-hɯ̀ (ímihɨ́vaju) [adjective] ‘the pretty path (road, shotgun,…)’

íñejcúe- íɲɛ̀ˣkʰɯ́-è- ‘pertain to this side’, e.g.,
íɲɛ̀ˣkʰɯ́è-ʔóˣtsʰɨ̀ (íñejcúehójtsɨ́) [demonstrative pronoun] ‘the hand of this side’

ɨ́dsɨhɨ́va- ítsìʔɨ́βà- ‘worthless’, e.g.,
ítsìʔɨ́βà-íˀkʲʰɯ̀ (ɨ́dsɨhɨ́vaíhcyu) [adjective] ‘worthless frame’

ɨ́hdée- íˀté-è- ‘old, pertaining to former time’, e.g.,
íˀté-è-ˣpʰì (ɨ́hdéejpi) [adjective] ‘the old one (SgM)’,
íˀté-è-pʰátʃì (ɨ́hdéepálli) [adjective] ‘the old field’

ɨ́mɨ́áá- ímɨ̀á:- ‘generous, proper, just, saintly, valuable’, e.g.,
ímɨ̀á:-tʃè (ɨ́mɨ́ɑ́álle) [adjective] ‘the saint (SgF)’,
ímɨ̀á:-mɨ̀ (ɨ́mɨ́ɑ́ámɨ́) [adjective] ‘a good vehicle of transportation’

ɨ́vee- íβè:- ‘why’, e.g.,
íβè:-kʰí (ɨ́veekí) [interrogative advereb o pronoun] ‘for what reason’,
íβè-ːpè (ɨ́veebe) [interrogative pronoun] ‘why (SgM)’,

[2]The presence of -βɯ̀ (-vu) ‘goal, theme’ in this construction is very interesting.

íβè:-kpà (ɨveewa) [interrogative pronoun] ‘why ⟨slab⟩’

kee- ∼ ke- kʰè:- ∼ kʰè- ‘which’, e.g.,
kʰè:-ʔè (keéhe) [interrogative pronoun] ‘which tree’,
kʰéʔà:-mɨ̀ (kéhaámɨ) [interrogative pronoun] ‘which leaf-like thing’

mi- ∼ mii- ∼ mɨ- ∼ mɨɨ mì(:)- ∼ mɨ̀(:) ‘two’ (-ːkʰɯ ‘dual’ follows inanimate classifiers.) Examples:
míː-ɲɛ́-kʰɯ̀ɯ́ ∼ míː-ɲɛ́-kʰɯ̀ (mííñécuú ∼ mííñécu) [quantifier] ‘two things’,
mí-ˣkʲʰòːhɨ́-kʰɯ̀ (míjcyoojɨ́cu) [quantifier] ‘two days’,
mɨ́ː-hɨ́-kʰɯ̀ɯ́ ∼ mɨ́ː-hɨ́-kʰɯ̀ (mɨ́ɨ́jɨ́cuú ∼ mɨ́ɨ́jɨ́cu) [quantifier] ‘two disk-like things’,
míː-tʲʰétsʰìí ∼ míː-tʲʰétsʰì (míítyétsií ∼ míítyétsi) [quantifier] ‘two (DuM)’

muhdɨ́ɨ́va- mùʔ-tíːβà- ‘how it is, what form it has, what type it is, how it behaves’,
mùʔtíː-βà-kʰò (muhdɨ́ɨ́vaco) [adjective] ‘what form (of a long thing thing)’

muhdú- mùʔtɯ́- ‘how it is, how big it is, how many there are’, e.g.,
mɯ́ʔtɯ̀ː-ːpè (múhduúbe) [adjective] ‘what size (SgM)’,
mɯ́ʔtɯ́-pʰèˣkʰóβà (múhdúpejcóva) [quantifier] ‘how many nights’

néhnɨhɨ́va- néʔnɨ̀ʔíβà- ‘bad, perverse, ugly, horrible’, e.g.,
néʔnɨ̀ʔíβà-ːpè (néhnɨhɨ́vaábe) [adjective] ‘the bad one (SgM)’,
néʔnɨ̀ʔíβà-kpà (néhnɨhɨ́vawa) [adjective] ‘the bad slab-like thing’

nihñée- nìʔɲé-è- ‘pertaning to the last’, e.g.,
nìʔɲé-è-nɛ̀ (nihñéene) [adjective] ‘the last thing’,
nìʔɲé-è-ˣpʰì (nihñéejpi) [adjective] ‘the last (SgM)’,
nìʔɲé-è-ˣpʰákʲʰò (nihñéejpácyo) [adjective] ‘the last liquid’

óehɨ́va- óèʔíβà- ‘ugly, horrible, repulsive, despicable’, e.g.,
óèʔíβà-pʰáːhɨ̀ (óehɨ́vapáájɨ) [adjective] ‘the ugly (ring, shoe,…)’,
óèʔíβà-ʧè (óehɨ́valle) [adjective] ‘the repulsive (SgF)’

pa- ∼ paá- pʰà- ∼ pʰàá- ‘all, complete, whole’, e.g.,
pʰà-kpà (pawa) [adjective] ‘whole slab-like thing’,
pʰá-ʔàːmɨ̀ (páhaámɨ) [adjective] ‘whole leaf-like thing’,
pʰá-mè-ːɾè (pámeére) [indefinite pronoun] ‘all (AnPl)’

páñétú-e- pʰáɲɛ́tʰɯ́-è- ‘crucial, most important’, e.g.,
pʰáɲètʰɯ́-è-ʔáˣkʰɯ̀ (páñetúehájcu) [adjective] ‘the most important pillar’,
pʰáɲɛ́tʰɯ́-è-ˣpʰì (páñétúejpi) [adjective] ‘the most important (SgM), the main authority (SgM)’

pápihchúu- pʰápʰìˀʧʰúːùˌ- ‘three’, e.g.,
pʰápʰìˀʧʰúːùˌβà (pápihchúúuva) [quantifier] ‘three small spherical things’,
pʰápʰìˀʧʰúːìːʔʲóβà (pápihchúúiihyóva) [quantifier] ‘three pencils (or similar things)’

peve- pʰèβè- ‘empty, not in use, ordinary, incomplete’, e.g.,
pʰèβé-tsʰîˌ (pevétsíi) [adjective] ‘empty place’,
pʰèβé-ˣtʰè (pevéjte) [adjective] ‘the unemployed (AnPl); the ordinary ones (AnPl)’,
pʰèβé-βìːùˌ (pevéviíu) [adjective] ‘the available pieces of cassava’

pié- ∼ piéé- pʰìé(ː)- ‘same as before’, e.g.,
pʰìé-tsʰìˀβùˌ (piétsihvu) [adjective] ‘the same place’

piva- pʰìβà- ‘many, numerous’, e.g.,
pʰìβáìːʔʲóβà (piváiihyóva) [quantifier] ‘many pencils (or similar things)’

pɨ́ɨ́née- pʰɨ́ːné-è- ‘pertain to the center, central’, e.g.,
pʰɨ́ːné-è-ʔè (pɨ́ɨ́néehe) [adjective] ‘the central tree’,
pʰɨ́ːné-è-ì (pɨ́ɨ́néei) [adjective] ‘the central river’

pɨ́ɨ́né-e-hójtsɨ- pʰɨ́ːné-è-ʔóˣtsʰɨ́- ‘four (lit. half a hand)’, e.g.,
pʰɨ́ːné-è-ʔóˣtsʰɨ́-mè-βà (pɨ́ɨ́néehójtsɨ́meva) [quantifier] ‘four (AnPl)’

pɨ́ɨ́névú-e- pʰɨ́ːnéβʉ́-è- ‘corresponding to the center or middle’, e.g.,
pʰɨ́ːnéβʉ́-è-kpà (pɨ́ɨ́névúewa) [adjective] ‘the slab-like thing in the middle’

tee- ∼ te- tʰè(ː)- ‘that (aforementioned)’, e.g.,
tʰé-ìhʲùˌ (téijyu) [adverb] ‘the aforementioned time’,
tʰèː-nè (teéne) [definite pronoun] ‘that aforementioned thing’,
tʰèː-kpà (teéwa) [definite pronoun] ‘that aforementioned slab-like thing’

tehdɨ́ɨ́va- tʰèˀ-tɨ́ːβà- ‘like the aforementioned’, e.g.,
tʰèˀ-tɨ́ːβà-kpà (tehdɨ́ɨ́vawa) [adjective] ‘like the aforementioned slab-like thing’

téhdu- tʰéˀtùː- ‘similar to the aforementioned in size or quantity’, e.g.,
tʰéˀtùː (téhduu) [adjective] ‘the size of the aforementioned ball’

ténejcúe- tʰé-nɛ̀ˣkʰʉ́-è- ‘pertain to the aforementioned side’, e.g.,
tʰé-nɛ̀ˣkʰʉ́-è-ì (ténejcúei) [definite pronoun] ‘that aforementioned side of the river’

túјkénúe- tʰúˣkʰénʉ́-è- ‘pertain to the beginning’, e.g.,
tʰúˣkʰénʉ́-è-ˣpʰì (túјkénúejpi) [adjective] ‘the first (SgM)’,
tʰúˣkʰènʉ́-è-tsʰîˌ (túјkenúetsíi) [adjective] ‘the first place’

tsaa- ∼ tsa- tsʰà(ː) ‘one’, e.g.,
tsʰà:pʰì (tsaápi) [quantifier] ‘one (SgM)’,
tsʰàmɨ (tsamɨ) [quantifier] ‘one vehicle of transportation’

tsáhojtsɨ- tsʰá-ʔòˣtsʰɨ- ‘five (lit. one hand)’,
tsʰá-ʔòˣtsʰí-hɨˣtʰó-βà (tsáhojtsɨjɨjtóva) [quantifier] ‘five lines’
tsanéemé- tsʰànɛ́-èmɛ́- ‘the same size as’, e.g.,
tsʰànɛ́-èmɛ́-nɛ̀ (tsanéeméne) [adjective] ‘thing of the same type’,
tsʰànɛ́-èmɛ́-mɨ̀ (tsanéemémɨ) [adjective] ‘vehicle of transportation of the same type’
tsánejcúe- tsʰá-nɛ̀ˣkʰɯ́-è- ‘one side of’, e.g.,
tsʰánɛ̀ˣkʰɯ́èkpà (tsánejcúewa) [adjective] ‘one side of the slab-like thing’
tsii- ∼ tsi- ∼ tsɨɨ- ∼ tsɨ- tsʰì(ː)- ∼ tsʰɨ̀(ː)- ‘other’, e.g.,
tsʰìː-ɲɛ̀ (tsiíñe) [indefinite pronoun] ‘other thing’,
tsʰí-ʔàːmɨ̀ (tsíhaámɨ) [indefinite pronoun] ‘other leaf-like thing’,
tsʰɨ̀ː-mɨ̀ (tsɨɨmɨ) [indefinite pronoun] ‘other vehicle of transportation’
tsíemé- tsʰí-èmɛ́- ‘some, whichever’, e.g.,
tsʰí-èmɛ́-ˣpʰì (tsíeméjpi) [indefinite pronoun] ‘someone (SgM)’,
tsʰí-èmɛ́-ˣpʰà (tsíeméjpa) [indefinite pronoun] ‘whichever soup’
tsííñejcúe- tsʰíː-ɲɛ̀ˣkʰɯ́-è- ‘other side of’, e.g.,
tsʰíː-ɲɛ̀ˣkʰɯ́-è-míːʔè (tsííñejcúemɨɨhe) [indefinite pronoun] ‘pertain to the other side of the skin’
tsí-ñé-emé- tsʰí-ɲɛ́-èmɛ́- ‘other type of’, e.g.,
tsʰí-ɲɛ́-èmɛ́-pápʲà (tsíñéemébábya) [adjective] ‘other kind of sack’
tsúúcáa- tsʰɯ́ːkʰá-à- ‘pertain to the past’, e.g.,
tsʰɯ́ːkʰá-à-ˣpʰì (tsúúcáajpi) [adjective] ‘the one (SgM) of old’,
tsʰɯ́ːkʰá-à-nɛ̀ (tsúúcáane) [adjective] ‘the thing out of the past’,
tsʰɯ́ːkʰá-à-ˣpʰákʲʰò (tsúúcáajpácyo) [adjective] ‘the soup that is past its time’
wáhdíe- kpáˀtí-è- ‘ordinary, common’, e.g.,
kpáˀtíà-hà (wáhdíaja) [adjective] ‘an ordinary house’
wahdɨɨva- kpàˀ-tɨ́ːβà- ‘insignificant’, e.g.,
kpàˀ-tɨ́ːβà-nɛ̀ (wahdɨɨvane) [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.

#σ̊... (that is, a high tone on the first syllable) '**subordinate clause** (indicated by ˚ over the vowel)' [V/N, $V/V_{subordinate}$]

$$\begin{array}{lll} \# & [_{V} & \sigma\ldots \\ & \Updownarrow & \\ \# & [_{V[+subordinate]} & \overset{H}{\sigma}\ldots \end{array}$$

-Ⓛμ '**emphasis** (emph)'. This always results in -$\overset{L\ H}{\sigma\sigma}$ 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.

[-Ⓛ:] '**future**'. See -i ∼ -Ⓛ:, page 429.

-Ⓛ◯$\overset{L}{\mu}$ ∼ **-Ⓛ◯p$^{h}\overset{L}{e}$** '**remote past** (rem)'. [V/V, N/N, Adj/Adj, Adv/Adv (second position clitic)] There are two forms:

1. The most frequent form is -Ⓗ$\overset{L}{\sigma}$, 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 úmɨvaábe.
   à:-nɛ́-ɛ̀ ʉ́mɨ́βà-:pɛ̀ 'So he fled (long ago).'
   thm-⟨ø⟩-rem flee-⟨SgM⟩

   (1066) a. Mítyamée tsááhi.
   b. Mítyaméváa tsááhi.
   a. mítʲʰà-mɛ́-ɛ̀ tsʰá:-ʔì 'Many came long ago.'
   many-⟨AnPl⟩-rem come
   b. mítʲʰà-mɛ́-βā-à tsʰá:-ʔì 'Many came long ago
   many-⟨AnPl⟩-rpt-rem come (it is said).'

2. The other form of the future is -Ⓛ◯pʰɛ, as in 1067 (which is similar to 1110):

[1] One could argue that the form of this suffix is simply -: (or -μ) and that -$\overset{L\ H}{\sigma\sigma}$ is the result of FLTS.

[2] This form of the remote past suffix may be simply -Ⓛ◯σ, 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.

(1067) Aanépe úmɨvaábe.
a:-nɛ-pʰɛ́ ʊ́míβà-ːpɛ̀ ‘So he escaped (long ago).’
thm-⟨ø⟩-rem escape-⟨SgM⟩
Examples 1068 (like 277) is a one-word response that adds -ː ‘emphasis’; FLTS applies to yield the final split vowel.

(1068) /o:-pʰɛ̀-ː/ [óːpʰɛ̀ɛ́] (Óópeé.) ‘I (long ago).’
I-rem-emph
Compare 1068 to 366, 1053, and 278. Other examples are found in 1048 and 772.

D.2 Suffixes with segments

The suffixes listed in this section add phonological segments. Many also contribute tone (pitch) and/or vowel length (duration).

-*a*mi -Ⓛ◯ami ‘incredulity’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1069) kʰà-ːpʲé-àmì (¿C*aa*byé*a*mi?) ‘Which?! (I can’t
which-⟨SgM⟩-incredulity believe it!)’

-b*a* *#σ̄*…-Ⓛ◯pa[3] ‘multiple action, intransitive (mIn)’ [V/V]. See the tone derivation of ó kʰà:jó-pá-ʔì in figure D.1 as well as those of figure 4.3 (page 120).

```
o ca:yo    be.angry
:  |  |
:  L__._ba    mIn
:  :  +  :
:  :  L__._hi    <t>
:  :  :  :  :
:  :  :  :  L   FDLT
H  :  H  H  :   DHT
:  :  :  :  :
ó ca:yó-bá-hi ‘I am angry.’
```

Figure D.1 TD: ó *ca*:yób*á*hi

-ː*be* ∼ -ː*bye* -Ⓛːpe ‘singular masculine ⟨SgM⟩’ [classifier] This suffix may delink conflicting tones except those of a relocation suffix.

-*ca* -kʰa ‘counterfactual conditional (if)’ [$V_{subordinate}$/Adv]

(1070) U pé*éca* muurá úúm*a* ó péé*i*yáhi.
ʊ̀ʊ̀ pʰɛ́ː-kʰà mʊ̀ʊ̀ːrá ʊ́ː-mà ó pʰɛ́ː-ì-já-ʔì
you go-CF confirm you-with I go-fut-frs-⟨t⟩
‘If you had gone, I would have gone with you.’

[3]This suffix makes its host’s initial syllable heavy; see section 5.7.3.

-ca(:) -Ⓛ◯k^{h}a ‘bid for affirmation (affirm)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1071) ¿A úca ú májchoó?
à ɯ́-k^{h}à ɯ́ má^{x}ʧ^{h}ò-ó-ʔì ‘Are you going to eat it?’
yn you-affirm you eat-fut-⟨t⟩

In 1072 -Ⓛ◯k^{h}àá comes about by the addition of -: ‘emphasis’ and the application of FLTS.

(1072) ò:-k^{h}àá (Oócaá.) ‘I!’
I-affirm-emph

-co -k^{h}o ‘implore (implore)’ [V$_{imperative}$/V (used only with imperatives)]

(1073) ɨ́:k^{h}ɯ́ì ts^{h}à:-k^{h}ò (ɨ́ɨ́cúi tsaáco.) ‘Hurry up and come!’
quick come-implore

-coba ∼ -cyoba -k^{h}^{L}opa ‘big (aug)’ [N/N, Adj/Adj]

(1074) kpá^{x}p^{h}í:-k^{jh}òpà (wájpíícyoba) ‘big man’
man-aug

(1075) mít^{jh}ámé-k^{h}òpà (mítyámécoba) ‘a great many’
many-aug

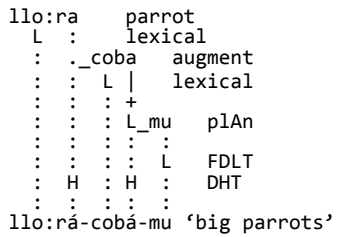


Figure D.2 TD: llo:rácobámu

-cooca -k^{h}^{L}o:k^{h}a ‘when (when)’ [V$_{subordinate}$/Adv]

(1076) O tsáácooca úúma ó ihjyúvaáhi.
ò ts^{h}á:-k^{h}ò:k^{h}à ɯ́:-mà ó ì^{ʔ}h^{j}ɯ́-βà-á-ʔì
I come-when you-with I mouth-have-fut-⟨t⟩
‘When I come, I will speak with you.’

-cu -Ⓛ◯k^{h}ɯ ‘singular transitive (sTr)’ [V/V]

Example 1077a implies multiple acts of swallowing because mɛ^{ʔ}to ‘swallow’ is inherently multiple transitive. By contrast, in 1077b the addition of -Ⓛ◯k^{h}ɯ ‘sTr’ makes the verb singular transitive, so indicates a single act of swallowing.

(1077) a. Tsúúca taabójɨɨne ó mehdóhi.
b. Tsúúca taabójɨ ó mehdúcúhi.
a. tsʰúːkʰà tʰàːpó-híː-nɛ̀ ó mɛ̀ˀtó-ʔì 'I've already swallowed the pills'
already cure-⟨disk⟩-pl I swallow-⟨t⟩
b. tsʰúːkʰà tʰàːpó-hɨ́ ó mɛ̀ˀtúɯ́-kʰúɯ́-ʔì 'I've already swallowed the pill.'
already cure-⟨disk⟩ I swallow-sTr-⟨t⟩

-ːcu ∼ -ːcuu ∼ -ːcyu -ːkʲʰɯ 'dual (du)' [$N_{inanimate}$/N, Adj/Adj]

úmɛ̀-ʔé-ːkʰùɯ (úmehéécu) 'two trees'
tree-⟨tree⟩-du
tʰé-nɛ̀-ːkʰùɯ (téneécu) 'these two things'
this-⟨ø⟩-du
mí-ɲé-ːkʰùɯúɯ (míñéécuú) 'two things'
two-⟨ø⟩-du
kʰómì-kʲʰùɯ (cómicyu) 'two towns'
town-du
ɨ́mɨ̀á-kpá-ːkʰùɯ (ɨ́mɨ̀áwáácu) 'two good slab-like things'
good-⟨slab⟩-InDu

-cunu ∼ -cyunu -kʲʰɯ̀nɯ 'multiple action (mIn or mTr)' [V/V]

(1078) Píívámeva dsɨɨnécunú dííbye déjuvu téhullévu.
pʰíːβá-mɛ̀-βà tsɨ̀ːné-kʰùɯnúɯ-ˀ
numerous-⟨AnPl⟩-rpt run-mIn-⟨t⟩

tíːpʲɛ̀ téhùɯ-βùɯ tʰé-ʔùɯʧé-βùɯ
that-⟨SgM⟩ behind-goal that-⟨yonder⟩-goal
'Many ran behind him to that place.'

-di ∼ -hdi -Ⓛ$^{(ʔ)}$ti 'negative imperative (neg)' [V/V] For examples see section 13.4 and 237, page 132.

-di ∼ -hdi -Ⓛ$^{(ʔ)}$ti 'animate (anim)' [N/N, N/N_{case}] See example 14, page 31. In figure D.3, note that in the derivation of kʰáːní-tì-βùɯ the Ⓛ of -ti is delinked by the Ⓛ of -βɯ 'goal' whereas in the derivation of ámánà-tí-tʲʰùɯ it blocks the Ⓛ of -tʲʰɯ 'source':

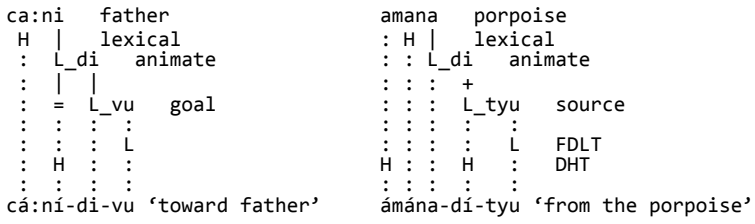


Figure D.3 TD: cá:nídivu, ámánadítyu

-dɬɬva -tɨɨβa 'type of ⟨type⟩' [classifier] (or possibly [N/N]).

(1079) ¿ɬɬnevú ú tsivá ehdɬɬvane?
Ɬɬ-nɛ̀-βʉ́ ʉ́ ts^{h}ìβá-^{ʔ} ɛ̀^{ʔ}-tɨ́ːβà-nɛ̀
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 distribuion. (1) -Ⓛ$^{(ʔ)}$t$^{(j)}$ʉ is a case marker, glossed 'like'; (2) -Ⓛ◯$^{(ʔ)}$t$^{(j)}$ʉ is a classifier, glossed ⟨like⟩. We illustrate each in turn.

1. -Ⓛ$^{(ʔ)}$t$^{(j)}$ʉ 'likeness, similarity, comparative (like)' [N/N$_{case}$].
(1080) k^{h}ɛ́ːmɛ̀-tʉ̀ (kéémedu) 'like an old man'
tí-ːp^{j}ɛ̀-tʉ̀ (dííbyedu) 'like him'
k^{h}ánáːmà-tʉ̀ (cánáámadu) 'like salt'
(1081) tíː Ⓖ ts^{h}íːhʉ̀-tʉ̀ (dɬɬtsɬɬjudu) 'like your mother'
your mother-like
(1082) ò-^{ʔ}tʉ̀ tì-ːp^{j}ɛ̀ (Ohdu diíbye.) 'He is like me.'
I-like that-⟨SgM⟩
When -Ⓛt$^{(j)}$ʉ follows a monosyllabic classifier, it does not ordinarily delink the low imposed by that classifier on the preceding noun, e.g., ʉ́mɛ́ʔɛ̀-kpá-tʉ̀ (tree-⟨slab⟩-like) 'like a slab-like thing'. Even if that monosyllabic classifier's Ⓛ is blocked, the Ⓛ of -Ⓛtʉ may fail to dock, as though that classifier's Ⓛ were present: kpa^{L}^{x}k^{h}ó-ʔɛ́-tʉ̀ (flower-⟨tree⟩-like) 'like a flowering tree'.
2. -Ⓛ◯$^{(ʔ)}$t$^{(j)}$ʉ 'likeness, similarity, comparative ⟨like⟩' [V$_{subordinate}$/N$_{case}$, V$_{subordinate}$/V$_{adverb}$]. This suffix may delink conflicting tones; for example, figure 3.27, page 85, shows that -Ⓛ◯tʉ (-du) 'like' can delink the Ⓛ of -Ⓛʉβʉ (-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 σ^{S}). Hosts with more than two syllables bear the suffix-imposed Ⓛ on the penult.

However, bisyllabic hosts unexpectedly bear a low tone on their final syllable. (It is as though the suffix's Ⓛ, having been blocked by the subordination tone, docks on the host's final syllable.) See the following chart and the examples that follow it.

HOST	TONES
1 syllable	σ́-tɯ
2 syllables	σσ̀-tɯ
3 syllables	σσσ́-tɯ
4 syllables	σσ̀σ́-tɯ

(1083) né-ʔtɯ̀ (néhdu) 'like saying'

(1084) fˣkʲʰà-tɯ̀ (íjcyadu) 'like being…'
tóˣkʰò-tɯ̀ (dójcodu) 'as when (small things) fall (one after the other)'

(1085) Dibye méénudu tsá o méénutúne.
[tì-pʲè mɛ́ːnɯ̀]-tɯ̀ tsʰâʔ ò méːnɯ̀-tʰɯ́-nè
that-⟨SgM⟩ do -⟨like⟩ not I do-neg-⟨n⟩
'I do not do what he does.'

(1086) kʰó-βà-ˣtsʰó-tɯ̀ (cóvajtsódu) 'like burning it'
firewood-have-caus-like

(1087) iwáájácutsódu
ì kpáːhákʰɯ̀-tsʰó-tɯ̀ ' having informed (someone)'
self know-caus-like

Figure 3.27, page 85, shows that -Ⓛ◯tɯ 'like' can delink the Ⓛ of -Ⓛɯβɯ 'maximal'.

-e -ē 'pertain to (per)' [N_{bound}/N Adj/Adj, must be followed by a classifier]

(1088) Diityéejpi áánuú.
tìː-tʲʰé-è-ˣpʰì áːnɯ̀ɯ́
that-⟨AnPl⟩-per-⟨SgM⟩ this.SgM
'This one (SgM) is one of them.'

(1089) ímíbájchóewa
ímípáˣʧʰó-è-kpà
fix-per-⟨slab⟩
'slab (plank,…) pertaining to those that are fixed (e.g., the planks resting on them)'

(1090) a. Diéllevu tsaálle.
b. Díiélledívú tsaálle.
a. tí^{G} ɛ́tʃɛ̀-βʉ̀ʉ́
you place-goal
b. tí:-é̲-tʃɛ̀-tí-βʉ́ʉ́
you-per-⟨SgF⟩-goal
} tsʰà:-pɛ̀ come-⟨SgM⟩
a. 'He came to where you were.'
b. 'He came to your female relative.'

-eme -^{L}éme 'similar to (sim)' [N/N, Adj/Adj, must be followed by a classifier]

(1091) tí-:pʲé-è̲mé̲-ˣpʰì (dííbyéeméjpi) 'one like him'
that-⟨SgM⟩-sim-⟨SgM⟩

(1092) íwáeméwa
í-kpá-è̲mé̲-kpà 'a slab (plank, bench, table,
self-⟨slab⟩-sim-⟨slab⟩ machete,…) like this one'

-haaca ∼ -ha -Ⓛ◯ʔa^{L}(:kʰa) 'realize (realize)' [V/V, N/N, Adj/Adj, Adv/Adv]

(1093) Diibyéha tsáájucóóhi.
tì-:pʲé-ʔà tsʰá:-hʉ̀kʰó:-ʔì 'He, I see,
that-⟨SgM⟩-realize come-now-⟨t⟩ is now coming.'

(1094) tì-:pʲé-ʔ^{L}a̲:kʰà (Diibyéhaáca.) 'It is HE.'
that-⟨SgM⟩-realize

The tone derivations of tʰè:ʔí-ʉ̀pá-ʔà and kpàˣpʰí-ʉ̀pá-ʔá:kʰà follow:

```
te:hi   river                wajpi   man
 |  :                        |  :
 L__._uba   probable         L__._uba   probable
 :  : L :   lexical          :  : L :   lexical
 :  : L_._ha   realize       :  : L_._ha:ca   realize
 :  : : :  :                 :  : : :  L  :   lexical
 :  : : :  L                 :  : : :  :  :   FDLT
 :  H : H  :                 :  H : H  :  :   DHT
 :  : : :  :                 :  : : :  :H :   PLTS
te:hí-ubá-ha                 :  : : :  :: :
'perhaps that river'         wajpí-ubá-haáca 'probably a man'
```

Figure D.4 TD: te:híubáha, wajpíubáhaáca

-ha(ja) -Ⓛ◯ʔa(ha) 'challenge veracity, curiosity, perplexity (verify)' [V/V, N/N, Adj/Adj, Adv/Adv, only used with questions] See section 11.2.7.

(1095) { mùːpá-ʔàhà / mùːpá-ʔà / WH-verify } { ¿Muubáhaja? / ¿Muubáha? } 'Who might it be?'

-hajchííjyu ~ -hajchi: -ʔa^{L}^{x}ʧ^{h}iː(h^{j}ɯ) 'if, conditional (if)' [$V_{subordinate}$/Adv]

(1096) U ímílléhajchíí úúma ó peéhi.
ùɪ ímíʧé-ʔà^{x}ʧ^{h}íː úːː-mà ó p^{h}è-é-ʔì
you want-if you-with I go-fut-⟨t⟩
'If you want, I (will) go with you.'

(1097) Májo u ímílléhajchííjyu.
máhò ùɪ ímíʧé-ʔà^{x}ʧ^{h}íːh^{j}ùɪ
let's.go you want-if
'Let's go, if you want.'

-hañe -ʔaɲe 'various, collection, set (var)'

1. [N/N, Adj/Adj]

(1098) ì̀jámɛ̀^{G}-ʔáɲɛ̀ (iyámeháñe) 'various kinds of animals'
mɨ́^{L}amúmáà^{G}-ʔáɲɛ̀ (mɨamúnáaháñe) 'types of people'
p^{h}íːm^{j}ɛ̀^{G}-ʔáɲɛ̀ (píímyeháñe) 'type of ants'
nɯ̀^{H}ʔnɛ́-ʔàɲɛ̀ (núhnéhañe) 'caterpillars (various types)'

(1099) háː-ʔàɲɛ̀ (jááhañe) 'houses (hamlet)'

(1100) nɪ̀^{H}ːh^{j}á-ʔàɲɛ̀ (nííjyáhañe) 'various rains' (phrase final)
k^{h}ò^{H}ːhɨ́-ʔáɲɛ́ (cóójɨháñé) 'various days' (nonfinal)

2. [$V_{nonfinite}$/N] σ^{G}ʔaɲe '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) p^{h}ɪ̀^{N}ʔk^{jh}áːβɛ̀^{G} ʔáɲɛ̀ (pihcyáávehañe) 'gatherings'
gather-sIn 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 ʔaɲɛ will bear tone as though the genitive low tone were present:

(1102) kpa̋^{N}^{x}k^{h}ó Ⓖ ʔáɲɛ̀ (wajcóháñe) 'various kinds of flowers'
ʧ^{h}ɛ̋^{N}mé Ⓖ ʔáɲɛ̀ (cheméháñe) 'various sicknesses'
a̋^{N}tó Ⓖ ʔáɲɛ́ (adóháñé) 'beverages'

The noun phrase headed by ʔaɲɛ ‘set’ may be possessed, as in 1103 and 1104:

(1103) ímyéénujcátsiháñé

í Ⓖ [mʲɛ́ːnɯ̄-ˣkʰátsʰi Ⓖ ʔáɲɛ́] ‘their battles’
self do-recip var

(1104) méimítyuháñe

mɛ́ Ⓖ [ímí-tʲʰɯ̄ Ⓖ ʔáɲɛ̀] ‘our evil deeds’
SAP good-neg var

-hde ∼ -hdye -Ⓛ◯ʔt(ʲ)e ‘concede (concede)’ [V/V, N/N, Adj/Adj, Adv/Adv] See section 11.2.9.

(1105) Anéhde waáca dipye.

à-né-ʔtɛ̀ kpàá-kʰà tì-pʲʰɛ̀ ‘OK, then, you
thm-⟨ø⟩-concede permit-affirm youImp-go may go.’

-hnécu -Ⓛʔnekʰɯ ‘immediate result (result)’ [V_{active}/Adv]

(1106) Íñehi ó wátsahjyúcú baavu callájahnécu.

íɲɛ̀-ʔì ó kpátsʰà-ʔhʲúkʰú-ʔ pàː-βɯ̀
aguaje-⟨cluster⟩ I cut-sTr-⟨t⟩ below-goal

kʰàtʃáhà-ʔnɛ́kʰɯ̀.
scattered-result
‘I cut the cluster of *aguaje* palm fruit down with the result that it scattered all over.’

-hi -Ⓛ◯ʔ(i) ⟨t⟩ [classifier] (This occurs on main clause verbs when the subject is not a classifier.) Utterance medial the form is -Ⓛ◯ʔ while utterance final it is -Ⓛ◯ʔi. -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 dsɨjcó íwajyámu.

b. Táñaalle íwajyámú dsɨjcóhi.

a. [tʰá Ⓖ ɲàː-tʃɛ̀] tsɨ̀ˣkʰó-ʔ [í Ⓖ kpàhʲámɯ̀]
my sib-⟨SgF⟩ sew-⟨t⟩ self clothes

b. [tʰá Ⓖ ɲàː-tʃɛ̀] [í Ⓖ kpàhʲámɯ́] tsɨ̀ˣkʰó-ʔì
my sib-⟨SgF⟩ self clothes sew-⟨t⟩
a,b. ‘My sister sews her clothes.’

-hijcy*a* -ʔi^{x}k^{jh}a
This is an affixal form of the verb 'be'; see section 5.10.

1. [V/V] -Ⓛʔi^{x}k^{jh}a 'habitual (be)' In 1108 the Ⓛ is blocked by the host's lexically marked low tone:
   (1108) P*a*íjyuv*á*r*é* w*a*kímyeíhíjcy*aá*be.
   p^{h}à-íh^{j}ù-βá-ɾ*ɛ́* kpàk^{h}ím^{j}ɛ́^{L}í-ʔ í^{x}k^{jh}à-ːpɛ̀ 'He works
   all-⟨day⟩-rpt-only work-sub be-⟨SgM⟩ every day.'
   Note that in 1151, page 436, -ʔi^{x}k^{jh}a- does not seem to indicate 'habitual' specifically, but a more general imperfective aspect.
2. [N/V] -^{L}ʔi^{x}k^{jh}a 'characteristic (be)'
   (1109) Diibyéhijcy*a* *á*vyet*a* ímí.
   tì-ːp^{j}é-ʔ^{L}i^{x}k^{jh}à áβ^{j}ɛ̀t^{h}à ímíʔ 'He is always very good.'
   that-⟨SgM⟩-be very good

-hj*a* -Ⓛ◯ʔha 'not witnessed (nwit)' [V/V, N/N, Adj/Adj, Adv/Adv]

(1110) A*a*néhj*á*p*e* peebe ihjyávu.
à:-nɛ́-ʔhá-p^{h}ɛ̀ p^{h}ɛ̀-ːpɛ̀ [^{G}iʔ h^{j}á]-βʉ̀
thm-⟨event⟩-nwit-rem go-⟨SgM⟩ self house -goal
'So he went to his house (but I did not see it).'

-i ∼ **-Ⓛ:** (or equivalently, -Ⓛμ) 'future (fut)' [V/V] There are two forms of this suffix.

1. When followed by a suffix other than -Ⓛ◯ʔi ⟨t⟩, the form is simply -ì, as illustrated in figure D.5a and b.
2. When followed by -Ⓛ◯ʔi ⟨t⟩, 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 V$^{L\ H}$V^{L}ʔi. Compare the tone derivations of pá^{x}ts^{h}ó-ì-ʧɛ̀, má^{x}ʧ^{h}ò-í-mɛ̀, and má^{x}ʧ^{h}ò-ó-ʔì in figure D.5c.

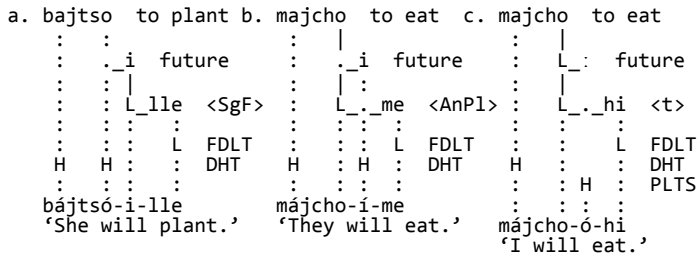


Figure D.5 TD: bájtsóille, májchoíme, májchoóhi

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 Ⓛ (the low tone of the host's final syllable) because it is imposed by the following -Ⓛ◯ʔi ⟨t⟩. However, -Ⓛ◯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 -Ⓛ◯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 -Ⓛ◯ʔi counts the length added by the future suffix as a syllable, it is tempting to suppose that this variant of the future is Ⓛσ, 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.

ó / I { a. máˣʧʰó-tʰɛ̲̀-é̲-ʔ ; máˣʧʰó-tʰɛ̲̀-ː-ʔì ; eat-go.do-fut-⟨t⟩ } tʰa̲ᴳ ʔʰʲá-βɯ̀ my house-goal

'I will go to eat at my house.'

-i ∼ -iíkye -i̲ᴸ ∼ -(Ⓛ)◯iːkʲʰeᴸ 'projected time (PT)' [V/V, N/N, Adj/Adj, Adv/Adv] (See section 5.9.3.3.) The full form (-iːkʲʰɛ̀ᴸ) 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) tsʰa̲ʔá-i̲ːkʲʰɛ̀ᴸ (tsáháiíkye) 'not yet'
not-PT

(1113) Tsáhái dibye tsáátune.

tsʰa̲ʔá-i̲ᴸ tì-pʲɛ̀ tsʰáː-tʰɯ̀-nɛ̀ 'He has not yet come.'
not-PT that-⟨SgM⟩ come-neg-⟨n⟩

See also 794, page 314.

-icho -itʃʰóᴴʔ 'sort of, a little bit (ish)' [Adj/Adj] See section 7.8.5.2.

-ijyu -ihʲɯᴸ 'at that time ⟨time⟩' [$V_{subordinate}$/NP]

(1114) Taabóóbé oke tááboó cóómívu o pééijyu.

tʰà:pó-ːpé̲ ò-kʰɛ̀ tʰáːpò-ó-ʔ [kʰóːmí-βɯ̀ ò pʰɛ̀ːˢ]-ìhʲɯ̲̀
cure-⟨SgM⟩ I-objAn cure-fut-⟨t⟩ town-goal I go -⟨time⟩
'The doctor will treat me when I go to town.'

-iñu -Ⓛ◯iɲɯ 'go after doing (do.go)' [V/V]

(1115) Íllure oke pajtyéíñuúbe.

ítʃɯ̀-ɾɛ̀ ò-kʰɛ̀ pʰàˣtʲʰé-íɲɯ̲̀-ːpɛ̀ 'He has passed in front
like.that-only I-objAn pass-do.go-⟨SgM⟩ of me, leaving me.'

-iyo ∼ -iya -Ⓛ◯i-yoᴸ ∼ -i-yaᴸ (fut-frs) 'should, would' [N/N, follows a classifier if present] (See example 1070.)

-j -Ⓛˣ 'vocative (voc)' [N/N_{case}, V/V]

(1116) ʧíːʔì-x̲ , tí-ʧʰàá (Llííhij, díchaá.) 'Son, come!'
son-voc youImp-come

-jcatsi -^{x}k^{h}$\overset{L}{\text{á}}$ts^{h}i ‘reciprocal (recip)’ [V/V]

(1117) Úhbájcatsímútsí méwá hallútu.
úʔpá-^{x}k^{h}àts^{h}í-mútsʰí mɛ́kpá Ⓖ $\overset{L}{\text{ʔ}}$átʃʉ́-t^{h}ʉ̀
argue-recip-⟨DuM⟩ wife top-sou
‘They argued about the wife.’

-je -Ⓛhe ‘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 Ⓛ of -Ⓛ:pɛ ⟨SgM⟩ delinks the Ⓛ of -Ⓛhɛ ‘come after doing’.

-jɨ ∼ -hjɨ -Ⓛ◯$^{(ʔ)}$hɨ ‘plural (pl)’ [N$_{\text{inanimate}}$/N, Adj/Adj]

(1118) ɛ̀:-nɛ́-ʔhì̱ (eenéhjɨ) ‘those (things)’
that-⟨ø⟩-pl

(1119) ímí-t^{jh}ʉ̀-nɛ́-ʔhì̱ (ímítyunéhjɨ) ‘bad (things)’
good-neg-⟨ø⟩-pl

(1120) ímí-ʔà:-mɨ́-hì̱ (ímíhaamɨjɨ) ‘good (books, papers, bills,…)’
good-⟨tree⟩-⟨leaf⟩-pl

(1121) a. Mítyame tsááhi.
b. Mítyaméhjɨ́ tsááhi.

a. mít^{jh}à-mɛ̀ many-⟨AnPl⟩	ts^{h}á:-ʔì come	a.	‘Many are coming.’
b. mít^{jh}à-mɛ́-ʔhɨ́ many-⟨AnPl⟩-pl		b.	‘Many big ones are ws‘coming.’

-jɨɨva ∼ -jɨɨ -Ⓛ◯hɨ:(βa) ‘deny (deny)’ [V$_{\text{subordinate}}$/V, N/N, Adj/Adj, Adv/Adv] The final syllable (βa) only occurs sentence finally.

The tones for nouns and verbs are different.

1. Following a noun the form is -Ⓛ◯hɨ:(βa).
(1122) tì-:p^{j}ɛ́-hɨ́:βà (Diibyéjɨ́ɨva.) ‘It is not he.’
that-⟨SgM⟩-deny
2. Following a verb (after the classifier subject) the form is #Ⓗ… -Ⓛhɨ:(βa). This may delink conflicting tones, particularly those of a preceding pronominal classifier, as illustrated in 1123.
(1123) Májchóóbejɨ́ɨ mítyane.
má^{x}ʧ^{h}ó-:pɛ̀-hɨ́: mít^{jh}à-nɛ̀ ‘He did not eat much.’
eat-⟨SgM⟩-deny much-⟨ø⟩

-jkimei -ˣkiʰmei̲ ‘behave like, to act like (act.like)’ [N/V]

(1124) ó tsʰí:mɛ́né-ˣkʰímɛ̀i̲-ʔ(ì) (Ó tsɬɬménéjkímeí.)
I child-act.like-⟨t⟩
‘I act like a child.’

-jtɑne -ˣtʰa̲ne ‘exclude, without regard for (exclude)’
[V/V, N/N, Adj/Adj, Adv/Adv]

(1125) Díítyéjtɑ̲ne dsɬɬneébe.
tí:-tʲʰɛ́-ˣtʰàne̲ tsí:nɛ̀-:pɛ̀ ‘He ran without giving
that-⟨AnPl⟩-exclude run-⟨SgM⟩ them a thought.’

See also 809, page 316.

-juco(:) ∼ -co: We list here two closely related morphemes, the verbal suffix -Ⓛ◯hɯ̲kʰo: ‘now’ discussed in section 5.12.1.1 and the second-position clitic -Ⓛ◯hɯ̲kʰo ‘focus’ discussed in section 11.2.2.

1. [V/V] -Ⓛ◯hɯ̲kʰo: ‘now, already (now)’
(1126) ò pʰɛ́-hɯ̀kʰó:-ʔ(ì) (O péjucóó.) ‘I go now.’
I go-now-⟨t⟩
This shortens to -kʰò: (-coo) in certain (rare) cases, as in 1127:
(1127) ì ˣkʲʰá-kʰó:-ʧɛ̀-hɪ́: (Ijcyácóóllejɬɬ.) ‘She is no
be-now-⟨SgF⟩-deny longer here.’

2. [N/N, Adj/Adj, Adv/Adv] -Ⓛ◯hɯ̲kʰo ‘focus (focus)’
(1128) tì-:pʲɛ́-hɯ̀kʰò (Diibyéjuco.) ‘It is HE.’
that-⟨SgM⟩-focus
For examples, see the tone derivations in figure 3.10, page 67.

-juj -Ⓛhɯ-ˣ ‘quick (quick-voc)’ [$V_{imperative}$/V] The host bears nonfinite tone (with perhaps some exceptions) and -Ⓛhɯˣ cannot delink this. Therefore the Ⓛ does not dock unless the stem is at least three syllables long. For examples see section 14.2.2.

-ke ∼ -kye -Ⓛk$^{(j)h}$e ‘animate object (objAn)’ [N/N_{case}] This suffix delinks conflicting tones.

(1129) Oohííbyeke ó ɑɑmú.
ò:ʔí-pʲɛ̀-kʰɛ̀ ó à:mú-ʔ(ì) ‘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 pʰé:-ʔ [[tʰa^{G}ʔ hʲá]-βú
I go-⟨t⟩ my house -goal

ò ma^{S}ˣʧʰò]-k̲ʰì̲
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 máˣʧʰò-tʰé-k̲ʰì̲[4] (Ó májchotéki.) ‘I go to eat.’
I eat-go.do-pur

-lle -Ⓛ◯ʧe ‘treat like (treat)’ [N/V]

(1132) Dííbyeke ó tsɬɬmenélléhi.

tí-:pʲè-kʰè ó tsʰí:mènέ-ʧέ-ʔì ‘I treat him
that-⟨SgM⟩-objAn I child-treat-⟨t⟩ like a child.’

-lle -Ⓛʧe ‘try (try)’ [V/V]

(1133) ¿ɬveekí oke ú méénulléhi?

íβè:kʰí ò-kʰè ú mέ:nù-ʧέ-ʔì ‘Why are you trying
why I-objAn you hit-try-⟨t⟩ to hit me?’

(1134) ò-kʰè mέ:nú-ʧè-:pè (Oke méénúlleébe.) ‘He tried
I-objAn hit-try-⟨SgM⟩ to hit me.’

-lle -Ⓛʧe ‘singular feminine ⟨SgF⟩’ [classifier] This suffix may delink conflicting tones except those of a relocation suffix.

(1135) máˣʧʰò-ʧè (Májcholle.) ‘She eats.’
eat-⟨SgF⟩

-lliíhye ∼ -hlliíhye ∼ -llii ∼ -hllii -$^{(ʔ)}$^{L}ʧi:(ʔʲe) ‘reason, motive, purpose (motive)’ [N/N_{case} $V_{subordinate}$/Adv]

(1136) Ehdu méénuube tsɬɬjúlliíhye.

èʔ-tù méːnù-:pè tsʰí:hú-^{L}ʧi̲:ʔʲè̲ ‘He made it like that
that-⟨like⟩ make-⟨SgM⟩ mother-for for his mother.’

In 738, page 299, -^{L}ʧìì ‘motive’ forms part of a sentence-initial connective.

[4] In 1131 the low tone of -Ⓛkʰì ‘purpose’ is blocked by that of -Ⓛtʰε ‘go to do’.

Section 10.7.2 presents examples where -tʃ^{L}ìì ‘motive’ follows a subordinate clause (always preceded by -nɛ ⟨event⟩).

-m*a* -Ⓛma ‘instrument, accompaniment (with)’ [N/N_{case}] This suffix delinks conflicting tones.

(1137) T*á*ñ*á*hbem*a* ó t*áá*v*á*teéhi.
[tʰá Ⓖ ɲá-ʔpɛ̀]-mà ó tʰá:βá-tʰɛ̀-ɛ́-ʔì
my sib-⟨SgM⟩ -with I hunt-go.do-fut-⟨t⟩
‘I go with my brother to hunt.’

(1138) T*á*ñ*aa*lle óóm*a* ds+jcó t*á*w*a*jyámu.
[tʰá Ⓖ ɲá^{L}:-tʃɛ̀] ó:-mà tsɨ̀^{x}kʰó-ʔ tʰá kpáh^{Gj}ámʉ̀
my sib-⟨SgF⟩ I-with sew-⟨t⟩ my clothes
‘My sister sewed my clothes.’

-me ∼ -mye ‘animate plural’

1. [V/$V_{complete}$] -Ⓛ◯m$^{(j)}$e ⟨AnPl⟩ This suffix may delink conflicting tones except those of a relocation suffix.
(1139) mà^{x}tʃʰó-mɛ̀ (M*a*jchóme.) ‘They are eating.’
eat-⟨AnPl⟩
2. [$N_{animate}$/N_{plural}] -Ⓛm$^{(j)}$e ⟨AnPl⟩ -mɛ (-me) ⟨AnPl⟩ may form the plural of certain nouns:
(1140) o^{L}:ʔí-:pʲɛ̀ (jaguar-⟨SgM⟩ oohííbye) ‘jaguar’
o^{L}:ʔí-mʲɛ̀ (jaguar-⟨AnPl⟩ oohímye) ‘jaguars’
(1141) /pʰá-mɛ̀-:ɾɛ̀/ (pámeére) ‘all of them (animate)’
all-⟨AnPl⟩-only
See also the tone derivation in figure 3.33, page 90.

-mei -Ⓛmei ‘expression of compassion or pity (poor)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1142) ¡Áyúú, +dátsó *áá*diméi!
ájʉ́ː +tátsʰó á:tì-mɛ́ì ‘Oh! Poor him!’
oh sad that.SgM-poor

(1143) ¡Éje, *áá*diméi; ú úv*a*ñú!
ɛ́hɛ̀ , á:tì-mɛ́ì ; ʉ́ ʉ́βàɲʉ́-ʔì
Look that.one-poor you make.suffer-⟨ø⟩
‘Look at that poor man! You really made him suffer!’

-mei -m$^{(j)L}$ëi ‘reflexive, passive (ɾ/ɽ)’ [V/V (valence reducing)]

(1144) kpáʔtà+-nʉ́-mɛ̀í-:pʲɛ̀ (W*á*hd*a*+númeííbye.) ‘He cut himself.’
cut-mTr-ɾ/ɽ-⟨SgM⟩

Although the verb of 1144 bears -nɯ ‘multiple transitive (mTr)’, it generally refers to a single cut, not to many cuts nor to cutting repeatedly.

-mu -Ⓛm$^{(j)}$ɯ ‘plural (for animate nouns) (plAn)’ [$N_{animate}$/N, Adj/Adj]

(1145) mé:nì-mùɯ (méénimu) ‘peccary’
peccary-plAn

(1146) ní:βɯ́kpà-m^{j}ùɯ (níívúwamyu) ‘deer (plural)’
deer-plAn

-mutsi -Ⓛmɯts^{h}i ‘dual masculine ⟨DuM⟩’ [classifier N/N][5] This suffix may delink conflicting tones except those of a relocation suffix.

(1147) ímípá^{x}ʧ^{h}ò-mɯ́ts^{h}ì (ímíbájchomútsi)) ‘the two (DuM) fixed (it)’
fix-⟨DuM⟩

(1148) Ihjyúvájcatsímútsi.
ì^{ʔ}h^{j}ɯ́βá-^{x}k^{h}a̲ts^{h}í-mɯ́ts^{h}ì̲[6] ‘Those two (males) are talking’.
talk-recip-⟨DuM⟩

-mupɨ -Ⓛmɯp^{h}ɨ ‘dual feminine ⟨DuF⟩’ [classifier N/N][7] This suffix may delink conflicting tones except those of a relocation suffix.

(1149) ímípá^{x}ʧ^{h}ò-mɯ́p^{h}ì̲ɨ (ímíbájchomúpɨ) ‘the two (DuF) fixed (it)’
fix-⟨DuF⟩

(1150) Úmɨhé pañe wákímyeímúpɨ.
úmì^{ʔ}έ Ⓖ p^{h}a̲ɲè kpák^{h}ím^{j}ɛ́í-mɯ́p^{h}ɨ̲[8] ‘Those two (females)
field inside work-⟨DuF⟩ work in the field.’

-naaaca ∼ -naa -naa̲(:k^{h}a) ‘while’ [$V_{subordinate}$/Adv] There are two forms:
Sentence finally the form is -naa̲:k^{h}a. By PLTS, this becomes #Ⓗ…-náàák^{h}à.

(1151) Tsɨɨju goocó tsɨɨmene tahíjcyánáaáca.
ts^{h}ɨ̲:hùɯ kò:k^{h}ó-^{ʔ} [ts^{h}ɨ́:mɛ̀nɛ̀ t^{h}à-^{ʔ} ɪ̂^{x}k^{j}^{h}á]-náa̲ák^{h}à
mother laugh-⟨t⟩ child cry-sub be -while
‘The mother laughs while the baby is crying.’

Sentence medially the form is simply #Ⓗ…-naa̲.

[5] -Ⓛmɯts^{h}i may be the combination of -Ⓛmɯ ‘plAn’ and -ts^{h}i ⟨DuM⟩.
[6] The Ⓛ of -mɯts^{h}i ⟨DuM⟩ is blocked by the lexically marked Ⓛ of the reciprocal suffix.
[7] -Ⓛmɯp^{h}ɨ may be the combination of -Ⓛmɯ ‘plAn’ and -p^{h}ɨ ⟨DuF⟩.
[8] The Ⓛ of -mɯp^{h}ɨ ⟨DuF⟩ is blocked by the root’s lexically marked Ⓛ.

-ne ~ -ñe -Ⓛ◯nɛ̀ 'singular (sg)' [$Adj_{inanimate}$/Adj] $Adj_{inanimate}$ includes adjectival, numeral and qualifier phrases.

-(:)ne ~ -(:)ñe -Ⓛ◯(:)nɛ 'plural (plIn)' [$N_{inanimate}$/N]; for example, kʰómì-ɲɛ̀ (cómiñe) 'towns' and úmɛ̀ʔé-ːnɛ̀ (úmehééne) 'trees'. The tone derivation of úmìʔé-kpʊ̀ʊ́-nɛ̀ 'little fields' follows:

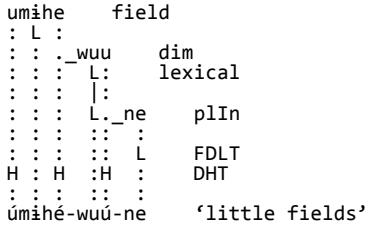


Figure D.6 TD: úmɨhéwuúne

See also [ʊ́mɛ́-ʔɛ̀-kpá-ːnɛ̀] (tree-⟨tree⟩-⟨slab⟩-plIn úmé*hewáánetu*) 'clothes pins' in 703, and [úmèʔé-ːnɛ̀-ʔáɲɛ̀] (tree-plIn-var úmehéénehá̋ne) 'many diverse trees' in figure 3.6.

-ne -nɛ ⟨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] -Ⓛ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 kʰóʔpʰɛ̀-nɛ̀ 'hard thing' and kʰóʔpʰé-nɛ̀-ʊ́βʊ̀ʊ 'really hard thing' follow:

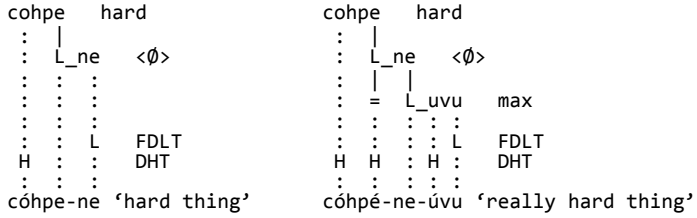


Figure D.7 TD: cóhpene, cóhpéneúvu

2. [V/$V_{complete}$] -Ⓛ◯ne ⟨ø⟩ may follow a verb as a classifier subject, as discussed in section 6.2.1. Note that in this case -nɛ ⟨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:

(1152) t^{h}úút^{h}áβà^{L} -ːβé-nè (Túútáva*a*avéne.) ‘It soured.’
sour-sIn-⟨ø⟩

```
tutava   be ruined
 : : |
 : : L_:ve   sIn
 : : |   :
 : : L___._ne   <Ø>
 : : :   :  :
 : : :   :  L   FDLT
 H H :   H  :   DHT
 : : :   :  :
túúáva-ːvé-ne ‘It was ruined.’
```

Figure D.8 TD: tútáva*a*avéne.

3. [$V_{subordinate}$/N,[9] $V_{subordinate}$/AdvCl] -Ⓛ◯nɛ 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 ⟨ø⟩. 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) Im*á*jchóne péjúcoóbe.
ì $mà^{Sx}$ʧ^{h}ó-nè p^{h}é-hʊ́k^{h}ò-ːpɛ̀ ‘After eating, he left.’
self eat-⟨event⟩ go-now-⟨SgM⟩

-ne ∼ -hne -Ⓛ◯$^{(ʔ)}$ne ‘recent (rec)’ [V/V, N/N, Adj/Adj, Adv/Adv, second position clitic]

(1154) Ohné ó meenú.
ò-^{ʔ}né ó mɛ̀ːnʊ́-ʔ(ì) ‘I did it recently.’
I-rec I do-⟨t⟩

(1155) tì-ːp^{j}é-nè mɛ̀ːnʊ́-ʔ(ì) (Diibyéne meenú.) ‘He did it recently.’
that-⟨SgM⟩-rec do-⟨t⟩

[9] When the subordinate clause is a relative clause, what results is really a noun *phrase* headed by -ne ⟨ø⟩.

-nu -Ⓛ◯nɯ ‘do, become, cause to be, cause to have (do)’ [N/V]

(1156) Dííbyeke ó dsɨ́ɨdsɨ́nuhi.
tí-ːpʲɛ̀-kʰɛ̀ ó tsɨ̀ːtsɨ́-nɯ́ɯ-ʔì ‘I helped him have money.’
that-⟨SgM⟩-objAn I money-do-⟨t⟩

The tone derivations of kpáɲɛ̀ʔhɨ́-nɯ́ɯ-ì-já-ʔì and kpáɲɛ̀ʔhɨ́-nɯ́ɯ-í-jó-ʧɛ̀-kʰɛ̀ follow:

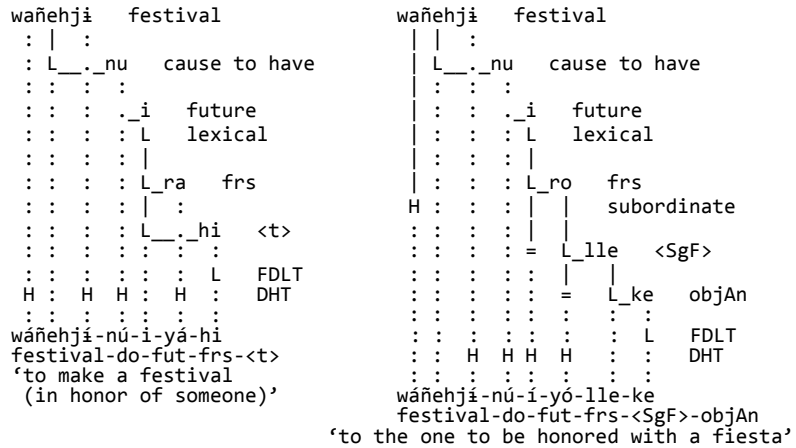


Figure D.9 TD: wáñehjɨ́núiyáhi, wáñehjɨ́núíyólleke

-pe -Ⓛ◯$p^{h\,L}e$ ∼ -Ⓛ◯$\overset{L}{\mu}$ See **remote past**, page 420.

-pejtso -$p^{h\,L}e^{x}ts^{h}o$ ‘upon encountering (meet)’ [V/V]

(1157) Ihjyávu óómííbyeke ó úhbápejtsóhi.
[[[$\overset{G}{\text{i}}_{i}$ ʔhʲá]-βɯ̀
self house -goal

$\overset{S}{\text{o}}$ːmí]-ːpʲɛ̀$_{i}$]-kʰɛ̀ ó ɯ́ʔpá-pʰɛ̀ˣtsʰó-ʔì.
arrive -⟨SgM⟩ -objAn I upbraid-meet-⟨ø⟩
‘I bawled him$_{i}$ out when he$_{i}$ returned to his$_{i}$ house.’

Example 531 is similar.

-pi -Ⓛ◯pʰi ‘excessively, habitually (excess)’ [V/V]

(1158) Tájtsɨ́ɨméné cuwápíhi.
tʰáˣtsʰɨ̀ːmɛ́né kʰɯ̀kpá-pʰí-ʔì ‘My baby always sleeps.’
child sleep-excess-⟨t⟩

In 1159 the host’s penult is not low (as expected) because this word is a predicate adjective:

(1159) kʰúkpá-pʰí-ʔ ùɪúɪ (Cúwápí uú.) 'You sleep too much.'
sleep-excess-⟨t⟩ you

-ra See -ro ∼ -ra ∼-yo ∼ -ya 'frustrative, contraexpectation (frs)'

-re ∼ -ye -(ː)ɾɛ ∼ -(ː)ɾɛ 'only'
[N/N, Adj/Adj, Adv/Adv, $V_{nonfinite}/V_{nonfinite}$]
-(ː)ɾɛ ∼ -(ː)jɛ '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 -ɾɛ ∼ -jɛ is added would have ended LL#, then—whether it is verbal or nominal—the tones become LH-ɾɛ.
2. If the word to which -ɾɛ is added would have ended HL#, then those tones remain: HL-ɾɛ.

With some exceptions, -(ː)ɾɛ ∼ -(ː)jɛ lengthens the preceding vowel only if the word does not have a heavy syllable earlier in the word. Compare, for example, kpáˣpʰì-ːjɛ̀ 'man only', in which there are no long vowels before -(ː)jɛ and it does lengthen the preceding syllable, with the following words in which there are earlier long vowels and -(ː)jɛ does not lengthen the preceding vowel: hɯ̀ːβá-ɾɛ̀ 'trail only', íkʲʰᴸóːkʰá-ɾɛ̀ 'only now', tìː-tʲʰɛ́-ɾɛ̀ 'they only', tíː-ʧɛ̀-ɾɛ̀ 'she only'.

-ri ∼ -yi -Ⓛɾi ∼ -Ⓛji 'inanimate oblique (oblIn)' [N/N_{case}]

(1160) ɨ́nɨɨtsúwari wákímyeííbye.
ɨ́nìːtsʰɯ́-kpà-ɾì kpákʰímʲɛ̀íːpʲɛ̀ 'He works with his
machete-⟨slab⟩-oblIn work-⟨SgM⟩ machete.'

(1161) Mítyane imájchóneri chémeébe.
[míʧʲʰà-nɛ̀ ì máˣʧʰó]-nɛ̀-ɾì ʧʰɛ́mɛ̀ːpɛ̀
much-⟨ø⟩ self eat -⟨ø⟩-oblIn sick-⟨SgM⟩
'He got sick because he ate too much.'

-rɨvaco #ᴸσː...-ɾɨβakʰo 'resulting position (result.posit)'
[$V_{nonfinite\ root}$/Adv] See 180, page 114.

-ro ∼ -ra ∼-yo ∼ -ya -Ⓛɾo ∼ -Ⓛɾa 'frustrative, contraexpectation (frs)' [V/V, N/N, Adj/Adj] Note that in 1162 and 1163 the syllables preceding -ɾo and -ja 'frustrative' bear low tone:

(1162) Mítyane ó májchorá. Áároobe tsá o újcávatú.
míʧʲʰànɛ̀ ó máˣʧʰò-ɾá-ʔì áː-ɾò-ːpɛ̀ tsʰᴴaʔ
much I eat-frs-⟨t⟩ thm-frs-⟨SgM⟩ not

ò ɯ́ˣkʰáβà-tʰɯ́(nɛ̀)
I become.fat-neg
'I eat a lot. However, I do not get fat.'

(1163) Ó májchóiyáhi.
ó máˣʧʰó-ì-já-ʔì 'I want to eat (but there is nothing).'
I eat-fut-frs-⟨t⟩

-Ⓛɾo ∼ -Ⓛɾa 'frustrative' delinks conflicting tones; see figures 3.30 and 3.31, page 87 and example 1164, in which -ɾo 'frustrative' delinks the Ⓛ from the penult of -Ⓛ◯hɯ̱́kʰo 'focus':

(1164) tì-ːpʲɛ́-hɯ́kʰòː-ɾò[10] (Diibyéjúcoóro.)
that-⟨SgM⟩-focus-frs
'It is HE (but that does not matter).'

However, apparently -ɾo ∼ -ɾa 'frustrative' does not delink a root's lexically marked tone, as shown by the tone derivations of ɨ́ʔβɛ̀tʰɛ́-ɾá-ʔì and ɨ́ʔβɛ̀tʰɛ́-ɾó-nɛ̀ in figure D.10:

```
FINITE                                SUBORDINATE
ɨhvete   to stop doing                ɨhvete   to stop doing
:  L |   lexical                      |  L |   lexical
:  : +                                |  : +
:  : L_ra   frs                       |  : L_ro   frs
:  : +  :                             |  :  :  :
:  : L__._hi   <t>                    H  :  :  ._ne   <∅>
:  :  :  :  :                         :  :  :  :  :
:  :  :  :  L   FDLT                  :  :  :  :  L   FDLT
H  : H  H  :   DHT                    :  : H  H  :   DHT
:  :  :  :  :                         :  :  :  :  :
ɨ́hveté-rá-hi                         ɨ́hveté-ró-ne
'...stopped doing it                  '...stopped doing it
 (but in vain)'                        (but in vain)'
```

Figure D.10 TD: ɨ́hvetéráhi, ɨ́hvetéróne

-te -Ⓛtʰe 'go to do (go.do)' [V/V] This suffix delinks conflicting tones.

(1165) Májchotéébé ihjyávu.
máˣʧʰò-tʰɛ́-ːpɛ́ [ʲíˀ hʲá]-βɯ̀ 'He went home to eat.'
eat-go.do-⟨SgM⟩ self house -goal

-te ∼ -jte -Ⓛ(x)tʰe ∼ -Ⓛːtʰe 'animate plural ⟨AnPl⟩' [N/N]

(1166) tsʰà-ːtʰɛ̀ (tsaáte) 'some (AnPl)'
one-⟨AnPl⟩

[10] We do not know why the penultimate vowel is long in this word.

(1167) tì-ːtʲʰɛ̀ (diitye) ‘those (AnPl)’
tsʰà-ːtʰɛ̀ (tsaáte) ‘some (AnPl)’
tsʰì-ˣtʲʰɛ̀ (tsijtye) ‘others (AnPl)

In table D.1, note that the low tone of -Ⓛkʰɛ̀ ‘objAn’ delinks the Ⓛ imposed by -Ⓛːpɛ ⟨SgM⟩ but not that of -Ⓛˣtʰɛ ⟨AnPl⟩:

Table D.1 Tone resistance by -jte ⟨AnPl⟩

	peccary	peccary + objAn
singular	mɨ́nɛ̀-ːpɛ̀ mɨ́neébe	mɨ́né-ːpɛ̀-kʰɛ̀ mɨ́néébeke
plural	mɨ́nɛ̀-ˣtʰɛ̀ mɨ́nejte	mɨ́nɛ̀-ˣtʰɛ́-kʰɛ̀ mɨ́nejtéke

-tsa -Ⓛ◯tsʰa ‘each’ [Adj$_{numeral}$/Adj (only on numeral phrases), follows the classifier]

(1168) a. tsápiítsa
tsʰápʰìː-tsʰà ‘each one’
one-each

b. míítyetsítsa
míː-tʲʰɛ̀tsʰí-tsʰà ‘two each’
two-⟨AnM⟩-each

c. pɨ́ɨ́néehójtsɨ́mevátsa
pʰɨ́ːné-ɛ̀-ʔóˣtsʰɨ́-mɛ̀-βá-tsʰà ‘each four’
half-per-⟨hand⟩-⟨AnPl⟩-pl-each

-tso ∼ -tsa -Ⓛtsʰo ∼ -Ⓛtsʰa ‘causative (caus)’ [V/V (valence increasing)]

(1169) Mehéró májchotsó ɨ́jtsɨ́ɨ́méneke.
mèʔéró máˣtʃʰò-tsʰó-ʔ [ɨ́ ˣtsʰɨ́ːmɛ́nɛ̀]-kʰɛ̀
aunt eat-caus-⟨t⟩ self child -objAn
‘My aunt fed her child.’

-tsʰò becomes -tsʰà before -mɛ́i ‘rɨ́p’:

(1170) tsɨ́hɨ́βɛ́-tsʰá-mɛ́ɛ́ɨ́-ːpʲɛ̀ (Dsɨ́jɨ́vétsámeɨ́ibye.) ‘He caused his
die-caus-rɨ́p-⟨SgM⟩ own death.’

-tu ∼ -tyu -t$^{(j)h}$ɯ ∼ -t$^{(j)}$ɯ ‘source (sou)’ [N/N$_{case}$]

(1171) Ávyéjuube tsáá ihjyátu.

áβ^{j}éhɯ̀-ːpɛ̀	ts^{h}áː-^{ʔ}	[$\overset{G}{\text{ı}}$	^{ʔ}h^{j}á	]-t^{h}ɯ̀	‘The chief comes
reign-⟨SgM⟩	come-⟨t⟩	self	house	-sou	from his house.’

-tu(ne) ∼ -tyu(ne) ‘negative (neg)’

1. [V$_{stem}$/V] #$\overset{H}{\sigma}$…-Ⓛt$^{(j)h}$ɯ(ne)
2. [V/V$_{stem}$] #$\overset{H}{\sigma}$…-t$^{(j)h}\underset{L}{\text{ɯ}}$(ne)
3. [Adj/Adj]

(1172) ìmí-t^{jh}ɯ̀ (imítyu) ‘bad’
good-neg

The optional final syllable nɛ̀ of -t^{h}ɯ(nɛ) ∼ -t^{jh}ɯ(nɛ) only occurs sentence finally, as in 1173:

(1173) Tsá dibye múijyú tsíjtyeke pɬáábotú.

ts$^{h}\overset{H}{\text{a}}^{ʔ}$	tì-p^{j}ɛ̀	mɯ́-ìh^{j}ɯ́	ts^{h}í-^{x}t^{jh}ɛ̀-k^{h}ɛ̀	
not	that-⟨SgM⟩	WH-time	other-⟨AnPl⟩	-objAn

p^{h}ɬáːpò-t^{h}ɯ́-(nɛ̀)
help-neg-⟨n⟩
‘He never helps others.’

The tone derivations of ɬ^{ʔ}βètʰé-tʰɯ̀-ɾó-nɛ̀ and áːʔíβè-tʰé-tʰɯ̀-ɯ́pɛ̀ follow:

```
ɬhvete   stop doing                 a:hɬve   visit
:  L |   lexical                    :  : |
:  : +                              :  : L_te   go.do
:  : L_tu   neg                     :  : :  +
:  : :  |                           :  : :  L_tu   neg
:  : :  L_ro   frs                  :  : :  :  |
:  : :  |  :                        :  : :  :  L_:be   SgM
:  : :  L__._ne   <n>               :  : :  :  :   :
:  : :  :  :  :                     :  : :  :  :   L   FDLT
:  : :  :  :  L   FDLT              H  H :  H  :   :   DHT
H  : H  :  H  :   DHT               :  : :  :  : H :   PLTS
:  : :  :  :  :                     :  : :  :  : : :
ɬhveté-tu-ró-ne                     ááhɬve-té-tu-úbe
’did not hardly stop (doing it)’    ‘He did not go to visit.’
```

Figure D.11 TD: ɬhvetéturóne, *ááhɬvetétuúbe*

-u. See -vu.

-uba -Ⓛ◯^{L}úpa ‘probable (prob)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1174) Diibyéubá tsááhi.
tì-ːpʲɛ́-ù̱pá tsʰáːʔì ‘He probably comes.’
that-⟨SgM⟩-prob come-⟨t⟩

See also figure D.4, page 426.

When a word ending with -Ⓛ◯^{L}ù̱pɯ ‘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 genitives; see section 9.1, page 252.

-ucunu -Ⓛɯkʰ^{L}ù̱nɯ ‘singular stative (sSt)’ [V/V]

-uvu -Ⓛɯβɯ ‘to the maximum extent (max)’ [N/N, Adj/Adj, $V_{nonfinite}$/N] Generally -Ⓛɯβɯ docks a low tone on its host’s final syllable; however, after some lexically-marked high tones, -Ⓛɯβɯ becomes -^{L}ù̱βɯ.

The tone derivations of úhíkʰò-úβù and àˣtʃʰúʔóːù-úβù-ɾɛ́-hùkʰò follow:

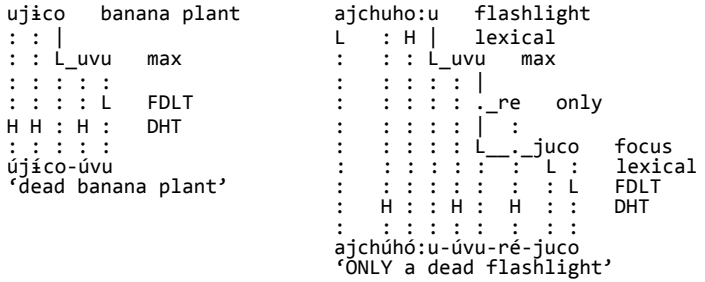


Figure D.12 TD: új꜒coúvu, ajchúhó:uúvuréjuco

(1175) tʰá: Ⓖ kʰ^{H}á:ní-ù̱βù̱ (táácááníuvu) ‘my deceased father’
my father-max

(1176) ¿Kiátú áánúuvu tsááhi?
kʰì̱á-tʰú́ á:nú́-ù̱βù̱ tsʰáːʔì ‘Where does THIS (SgM) come from?’
where-sou this.SgM-max come-⟨t⟩

-ù̱βù̱ (-uvu) is also used as a superlative following -nɛ ⟨ø⟩:

(1177) àˣtʲʰú́βá-nè-ú́βù̱ (ajtyúváneúvu) ‘the brightest green/blue’
green-⟨ø⟩-max

(1178) Ímíñeúvú méénuco.
ímí-ɲè-ú́βú́ mé:nù-kʰò ‘Do it the best you can.’
good-⟨ø⟩-max do-implore

-v*a* -βa ‘plural (pl)’ [Adj$_{numeral}$/Adj (only used with numerals)]

(1179) ts^{h}á-ʔò^{x}ts^{h}ɨ́-mɛ̀-β̲à (ts*á*hojtsɨ́mev*a*) ‘five live beings’
one-⟨hand⟩-⟨AnPl⟩-pl

-(:)v*a* -Ⓛ◯(ː)βa ‘have’ [N/V]

(1180) àh^{j}á-βà (*a*jyáv*a*) ‘to have a son-in-law’
ì:ɲúɯ́-βà (iiñúv*a*) ‘to be dirty’
tì:tsɨ́-βà (dɨɨdsɨ́v*a*) ‘to have money’

The tone derivation of kpájnɛ̀ʔhɨ́-βà-t^{h}é-nɛ̀-βʉ̀ follows:

```
wañehjɨ   festival
 : |  :
 : L__._va   have
 : :  :  |
 : :  :  L_te   go.do
 : :  :  |  :
 : :  :  L__:_ne   <Ø>
 : :  :  :  :  |
 : :  :  :  :  L_vu   goal/theme
 : :  :  :  :  :  :
 : :  :  :  :  :  L   FDLT
 H :  H  :  H  :  :   DHT
 : :  :  :  :  :  :
wáñehjɨ-va-té-ne-vu
‘to where they will have the festival’
```

Figure D.13 TD: w*á*ñehjɨ*v*at*é*nevu

In 1181 -Ⓛ◯βa should dock its low tone on the last syllable of k^{h}ar̲ak^{h}a but this is blocked by the root’s lexically marked low tone:

(1181) Mítyane c*á*rac*á*múvalle.

[mít^{jh}à-nɛ̀ k^{h}ár̲ak^{h}á]-mɯ́-β̲à-tʃɛ̀ ‘She has many
many-pl chicken -⟨AnPl⟩-have-⟨SgF⟩ chickens.’

-v*a* -Ⓛ◯βa ‘learned by hearsay, reportative (rpt)’ [V/V, N/N, Adj/Adj, Adv/Adv]

(1182) Diibyév*á* peé úúm*aá*.

tì-ːp^{j}é-β̲á p^{h}ɛ̀-é-^{ʔ} ɯ́ː-màá[11] ‘He will go with you
that-⟨SgM⟩-rpt go-fut-⟨ø⟩ you-with (it is said).’

(1183) a. Mítyámev*a* ts*áá*hi.
b. Mítyamév*á* ts*áá*hi.

[11] When the pronoun becomes long, the final vowel of the suffix splits by FLTS.

a. mítʲʰá-mè-βà
many-⟨AnPl⟩-plQ
b. mítʲʰᴸá-mé-βá
many-⟨AnPl⟩-rpt
} tsʰá:-ʔì come { a. ‘Many are coming.’ b. ‘Many are coming (they say).’

The tone derivation of màˣʧʰó-βà-:pɛ́-βàˣ follows:

```
majcho   to eat
 |   :
 L___._va   come to do
 :   :  |
 :   :  L_:be   <SgM>
 :   :  |   :
 :   :  L___._vaj   reportative
 :   :  :   :  :
 :   :  :   :  L    FDLT
 :   H  :   H  :    DHT
 :   :  :   :  :
majchó-va-:bé-vaj
‘He is coming to eat (it is said).’
```

Figure D.14 TD: majchóva:bévaj

-va -Ⓛ◯βa ‘come to do (come.do)’ [V/V]

(1184) Ó cuwává dihjyá pañévu.
ó kʰʉ̀ʉ̀kpá-βá-ʔ [[tiᴸʔ hʲá] Ⓖ pʰᴸáɲɛ́]-βʉ̀ʉ̀
I sleep-come.do-⟨t⟩ your house inside -goal
‘I come to sleep in your house.’

-:ve ∼ -:vye -Ⓛ:βʲʲe ‘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) póʔɛ́hʉ̀ʉ̀-:βè (bóhéjuuve) ‘to have a hole’
póʔókpà-:βè (bóhówaave) ‘become visible, appear’
kʰáʔpʰì-:βʲè (cáhpiivye) ‘to be poured out’

(1186) ᴸó:ʔí-:pʲé-:βè-:pè (oohííbyéévеébe) ‘He lives like a dog
dog-⟨SgM⟩-sIn-⟨SgM⟩ (lit. became a dog).’

(1187) mɛ́:ní-:βʲɛ̀-:pè (Mééníívyeébe.) ‘He became a pig.’
pig-sIn-⟨SgM⟩

(1188) Mɨ́amúnáájpíívyeébe.
mɨ́ᴸámʉ́ná:-ˣpʰí:-βʲɛ̀-:pè ‘He became a human.’
person-⟨SgM⟩-sIn-⟨SgM⟩

The tone derivation of mɨàmʊ́náː-ˣpʰíː-ːβʲèː-ːpè follows:

```
mɨamunaa   people
 :L : :|   lexical
 :: : :L_jpi   <SgM>
 :: : :|   |
 :: : :=   L_:vye   become
 :: : ::   |    |
 :: : ::   =    L_:be   <SgM>
 :: : ::   :    :   :
 :: : ::   :    :   L   FDLT
 H: H HH   H    :   :   DHT
 :: : ::   :    : H :   PLTS
 :: : ::   :    : : :
mɨamúnáá-jpíː-vye-ébe ‘He became a human.’
```

Figure D.15 TD: mɨamúnáájpíːvyeébe

-véjɨu -βéhɨɯ ‘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 -Ⓛ◯$^{(ʔ)}$tɯ ‘like’. See example 810, page 317

-vu ∼ -vyu ∼ -u -Ⓛβ$^{(j)}$ɯ ∼ -Ⓛɯ ‘goal, theme (goal, thm)’ [N/N$_{case}$] See 1110, page 429.

(1189) Ávyéjulle péé ihjyávu.

áβʲéhʉ̀-tʃɛ̀	pʰéː-ʔ	[^{G}ɪʔ	hʲá	]-βʉ̀	‘The chieftess goes
reign-⟨SgF⟩	go-⟨t⟩	self	house	-goal	to her house.’

-wu(u) -kpʉ̀^{L}(ɯ) ‘diminutive, very (dim)’ [N/N, Adj/Adj]. Word medially, i.e., when some suffix or clitic follows, the form is -kpʉ̀^{L}ɯ. Word finally the form is -Ⓗkpʉ̀^{L}ɪ.[12] Further, the tone patterns are different for nouns and adjectives:

1. When -kpʉ̀^{L} follows a noun, all preceding tones are high except for any lexically marked low tones, as in the examples that follow:

   (1190) kpáˣpʰí-kpʉ̀^{L}ɯ (wájpíwu) ‘small man’
   man-dim

   (1191) ájá-né-kpʉ̀^{L} (áyánéwu) ‘few things’
   few-frs-⟨ø⟩-dim

   The tone derivations of ájá-né-kpʉ̀ and ámáná-kpʉ̀ɯ́-mʉ̀ are given in figure D.16 and that of ʔóʔtsʰárɨ́hɨ́-kpʉ̀ɯ́-mʉ̀-ɾé-hʉ̀kʰò is given in figure D.17.

[12]Even though, as here, a second /ɯ/ is not present, the syllable preceding -kpʉ̀^{L} must bear high tone; i.e., it behaves as though the extra syllable were present.

```
aya    few                amana
| :                      : H :   lexical
L_._ne    <∅>           : : ._wuu   dim
| :  :                   : : :  L|   lexical
= :  ._wu    dim        : : :  :+
: :  :  L    lexical    : : :  :L_mu   plAn
H H  H  :    DHT        : : :  ::  :
: :  :  :                : : :  ::  L   FDLT
áyá-né-wu                H : H  ::  :   DHT
'few things'             : : :  ::  :
                         ámáná-wuú-mu  'little porpoises'
```

Figure D.16 TD: *ámánáwuúmu, áyánéwu*

```
ohtsarɨjɨ   pichico
:   : : :
:   : : ._wuu   dim
:   : : :  L|   lexical
:   : : :  :+
:   : : :  :L_mu   plAn
:   : : :  ::  |
:   : : :  ::  ._re    only
:   : : :  ::  |  |
:   : : :  ::  L__._juco   now
:   : : :  ::  :  :  L :   lexical
:   : : :  ::  :  :  : L   FDLT
H   H H H  :H  :  H  : :   DHT
:   : : :  ::  :  :  : :
óhtsárɨjɨ-wuú-mu-ré-juco
'now only little pichicos (type of monkey)'
```

Figure D.17 TD: *óhtsárɨjɨwuúmuréjuco*

2. When -kpɯ̀ follows an adjective, it imposes a low tone on the adjective's first syllable, as seen in 1192 and 1193: Ⓛ…-kpɯ̀(ɯ). It is used to enhance adjectives, as in 1192:

   (1192) ìmí-kpɯ̀ tì:-ʧɛ̀ (Imíwu diílle.) 'She is very pretty.'
   good-dim that-⟨SgF⟩

   (1193) kʰàjópá-kpɯ̀ (cayóbáwu) 'very angry'
   kpàkʰímʲɛ́ípʰí-kpɯ̀ (wakímyéípíwu) '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'.

Appendix E

The Bora Classifiers

E.1 Explanation and disclaimers

This section presents a list of Bora classifiers.[1] 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 Iñeja 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 Iñeje, (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 /-a̲ːkʰoɾoʔo/ *shape:* resembling a blown-up bag or a dress without a waist

-acúúu /-a̲kʰɯːɯ/ *position:* seated (or setting)

-aalláco /-a̲ːʧakʰo/ *shape:* resembling a tube with a bulge in the middle

-allúrou /-a̲tʃɯɾoɯ/ *shape:* large bulging eyes of people or animals

-aamái /-a̲ːmai/ *shape:* a column of people or animals one after another

-aapárou /-a̲ːpʰaɾoɯ/ *shape:* a circular stain

-aráára /-a̲ɾaːɾa/ *shape:* having many small holes in it (e.g., a hide with holes made by a shotgun)

-aráárau /-a̲ɾaːɾaɯ/ *shape:* a small stain

-atyóhraj+ /-a̲tʲʰoʔɾahɨ/ *shape:* loose, not rolled up (e.g., a pile of clothes tossed in a heap)

-avóhoóu /-a̲βoʔoːɯ/ *position:* turned face down

•-ba, -bya or -hba /-Ⓛpa ~ -Ⓛpʲa ~ -Ⓛʔpa/
1. *shape:* thick, long and round, e.g., a log
2. *shape:* any kind of package, carton or box
3. *shape:* a musical instrument 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
7. many other things, e.g., úmìpà (únibа) 'lip', nĩˣtʲʰɯ̀pà (níjtyubа) 'strainer', tòʔhípà (dohjɨbа) 'sling for carrying a baby on the shoulder', úɯkʰɛ̀ːpà (úkeébа) 'swampy area', kpàːpʲà (waábya) 'hammock', tsɯ̀tsápà (dsudsábа) 'type of palm called *huicungo*', úɯʧɛ̀pà (úlleba) 'frying pan', tsʰàʔrópà (tsahróba) 'tightly woven basket'

•-babya or -Ⓛhbabya /-Ⓛpapʲa ~ -Ⓛʔpapʲa/ *shape:* a container the shape of a bag

•-bajcu /-Ⓛpaˣkʰɯ/ *shape:* any type of bone

•-baju or -hbaju /-Ⓛpahɯ ~ -Ⓛʔpahɯ/ *botanical:* stand of trees

-banúúnui /-pa̲nɯːnɯi/ *shape:* long, narrow ridge like those made by a plow

•-bau or -hbau /-Ⓛpaɯ ~ -Ⓛʔpaɯ/ *shape:* mound, hill or round protuberance

●-:be /-Ⓛːpɛ/ *being:* male person or animal (singular masculine ⟨SgM⟩)

-beeróba or -beeróu /-pɛ̀ːɾopa ∼ -pɛ̀ːɾoɯ/ *shape:* a bald dome (e.g., a head without hair)

●-bewa /-Ⓛpɛkpa/ *shape:* a stack of things

-bɨhjɨ /-Ⓛpɨʔhɨ/ *shape:* a stain

-bojɨ /-Ⓛpohɨ/ *liquid:* a stationary bubble or pool of some liquid (e.g., a drop of water on the table, a pool of water)

-buhtsa /-Ⓛpɯʔtsʰa/ *shape:* a small mound of dirt (e.g., at the foot of an upturned tree)

-cadóóu /-kʰà́toːɯ/ *substance:* having two colors, each end being a different color

-cadúhdáu /-kʰà́tɯʔtáɯ/[2] *shape:* hung suspended from both ends (e.g., a hammock)

-cadsúdsuúu /-kʰà́tsɯtsɯːɯ/ *shape:* having shrunk in size

-cahdádau /-kʰà́ʔataɯ/ *position:* with the head bowed down, showing sadness, embarrassment, or disgust

-cahmái /-kʰà́ʔmai/ *shape:* a pile up of people, plates, boxes, or other things

-cahmátajɨ /-kʰà́ʔatʰahɨ/ *condition:* things stuck together

-cahjói or -cahjyói /-kʰà́ʔhoi ∼ -kʰà́ʔhʲoi/ *shape:* having a wavy edge, e.g., the rim of a hat, the edge of a canoe

●-caája /-Ⓛkʰaːha/ *spatial:* place like a gully or swamp

-caji /-Ⓛkʰahi/ *being:* a cow or tapir

-callájaáu /-kʰà́tʃahaːɯ/ *shape:* a disorganized group of things, people, or animals

-calléjuwa /-kʰà́tʃɛhɯkpa/ *shape:* having raised edges, but lacking much depth

-callóu /-kʰà́tʃoɯ/ *position:* person or animal with the head down

-callúrɨɨ́jɨ /-kʰà́tʃɯɾɨːhɨ/ *position:* one edge of an object higher than the opposing edge

-camáhjába /-kʰà́maʔhápa/[3] *shape:* broken pieces (of some object)

○-camáhllaba /-kʰà́maʔtʃapa/ *object:* the sediment left in the bottom in the preparation of some drink

○-camáhtajɨ /-kʰà́maʔtʰahɨ/ *object:* disk-shaped stopper for plugging up holes in wood or openings in the ground

-camújtyuhi /-kʰà́mɯˣtʲʰɯʔi/ *shape:* a short neck of a person or animal

○-camúruúi /-kʰà́mɯɾɯːi/ *position:* an obstruction in something tube-shaped

-canóóu /-kʰà́noːɯ/ *position:* bowing the head

○-canúnuúi /-kʰà́nɯnɯːi/ *shape:* very full, e.g., a bag or basket

-caanúroi /-kʰà́ːnɯɾoi/ *shape:* very full, e.g., a bulging bag or basket

-capátyuúu /-kʰà́pʰatʲʰɯːɯ/ *shape:* a sharp object pierced through something else

○-capújuúu /-kʰà́pʰɯhɯːɯ/ *position:* someone stooped over to pass under something

-carááu /-kʰà́raːɯ/ *shape:* a deep hole

[2]This derives from the verb kʰatɯʔta '(something suspended) to come loose'.

[3]This may derive from the verb kʰà́maʔha; compare kʰàmá-ːβɛ̀ 'to put together'.

-caríhjyau or -caríjyaáu /-k^{h}a̱^{L}ri^{ʔ}-h^{j}awɯ ∼ -k^{h}a̱^{L}rih^{j}a:ɯ/ *position:* two poles together at the top with the bottom points apart; a person standing with his legs apart

-caróhjawa /-k^{h}a̱^{L}ro^{ʔ}hakpa/ *shape:* a high riverbank or precipice

-caróóju /-k^{h}a̱^{L}ro:hɯ/ *shape:* cut at an angle or several objects cut at different heights or lengths

-catóroóu /-k^{h}a̱^{L}t^{h}oro:ɯ/ *shape:* a prop (supporting something); a person leaning against something

-catsóói /-k^{h}a̱^{L}ts^{h}o:i/ *position:* jacked up above the middle (e.g., a pair of pants jacked up above the waist)

-cayáhtyaj+ /-k^{h}a̱^{L}ja^{ʔ}t^{jh}ahɨ/ *condition:* a ruptured eyed

-cayííj+ /-k^{h}a̱^{L}ji:hɨ/ *condition:* a deformed mouth

●-co, -cyo, -coo, or -cyoo /-Ⓛk^{h}o ∼ -Ⓛk^{jh}o ∼ -Ⓛk^{h}o: ∼ -Ⓛk^{jh}o:/
1. *shape:* a slender pole
2. *other things of various shapes*, e.g., k^{h}àné́k^{h}ò (canéco) 'cup', k^{h}á^{ʔ}kúnɯ̀k^{h}ò (cáhgúnuco) 'starch drink', ʔɯ́mɨ̀k^{h}ò húmɨco 'forehead' (formed from ^{H}ɯ́mɨ̀ húmɨ́ɨ́ 'face'), né:-p^{h}^{L}ɨ̌k^{jh}ò (néépicyo) 'squirrel', mɯ́:mɯ̀k^{h}ò (múúmuco) 'wasp nest', nì:mɯ́k^{h}ò (niimúco) '*paujil* (type of bird)'

●-coóha /-Ⓛk^{h}o:ʔa/ *shape:* a tree with branches but no leaves or other similar things (e.g., a broom)

●-cohna /-Ⓛk^{h}o^{ʔ}na/ *shape:* long and narrow (e.g., the legs of people, animals or furniture)

○-cohña /-Ⓛk^{h}o^{ʔ}ɲa/ *shape:* resembling a bicycle pedal

●-coóho /-Ⓛk^{h}o:ʔo/ *shape:* resembling a fishnet (string knotted together like a fishnet)

●-coja /-Ⓛk^{h}oha/ *shape:* a rapidly made basket with very loose weave

●-coómi /-Ⓛk^{h}o:mi/ *spatial:* a place where people live (town or village)

-cotyái /-k^{h}o^{L}t^{jh}ai/ *shape:* long narrow supports (e.g., the legs of a table)

○-cubáu /-k^{h}^{L}ɯ̀paɯ/ *shape:* unnaturally short (e.g., cut-off pants, an amputated limb)

-cuhco /-Ⓛk^{h}ɯ^{ʔ}k^{h}o/ *condition:* very thin (person or animal)

-cuhllu /-Ⓛk^{h}ɯ^{ʔ}ʧɯ/ *shape:* curved or twisted, e.g., a pole or a road

○-cuhtsíu /-k^{h}^{L}ɯ̀^{ʔ}ts^{h}iɯ/ *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 /-Ⓛk^{h}ɯ^{ʔ}βi/ *shape:* a shriveled hand

-cujúúu /-k^{h}^{L}ɯ̀hɯ:ɯ/ *position:* a log that does not reach across to the other side

-cujúroba /-k^{h}^{L}ɯ̀hɯɾopa/ *shape:* underdeveloped or severed (e.g., a leg, an arm, a pole cut too short)

-cuumúruj+ /-k^{h}^{L}ɯ̀:mɯɾɯhɨ/ *shape:* a hump-backed person or animal

-cunííu /-k^{h}^{L}ɯ̀ni:ɯ/
1. *shape:* resembling a foot without toes
2. *figurative:* a person who does not walk normally because of pain in the toes

○-cunɨ́ɨ́rɨ́u /-k^{h}^{L}ɯ̀nɨ:ɾiɯ/ *condition:* having a dull edge or tip (an instrument such as a machete, axe, arrowhead,…)

-chaácha /-Ⓛʧʰaːʧʰa/ *condition:* soft and mushy (e.g., muddy ground or fruit that has been trampled)

-chachóóho /-ʧʰaˈʧʰoːʔo/ *shape:* the legs of a bowlegged person, table legs bent inwards

-chahpi /-Ⓛʧʰaʔpʰi/ *shape:* fluffed out (e.g., ruffled hair or feathers)

○-chaája /-Ⓛʧʰaːha/ *condition:* rotten or decomposed

-chehmúwa /-ʧʰɛˈʔmɯkpa/ *shape:* resembling a protruding jaw (e.g., that of a person lacking teeth)

-cheíji /-ʧʰɛˈihi/ *shape:* fine lines (e.g., scratches)

●-cheére /-Ⓛʧʰɛːrɛ/ *shape:* a split in a board or a canoe

●-chi or -tsi /-Ⓛʧʰi ∼ -Ⓛtsʰi/ *spatial:* a place (⟨place⟩)

-chihyo /-Ⓛʧʰiʲʔo/ *shape:* the frayed end of a rope

-chohra /-Ⓛʧʰoʔɾa/ *shape:* hanging over (e.g., a cock's comb hanging off to one side, a rope hanging over something)

-chuhchu /-Ⓛʧʰɯʔʧʰɯ/ *shape:* a short stump of a limb left on a tree that was not cut close to the trunk

-dajca /-Ⓛtaˣkʰa/ *condition:* trampled (grass or weeds)

-dɨbééu /-tɨˈpɛːɯ/ *position:* held between opposing objects, e.g., something held between the lips or teeth, or held in a vise

○-dɨmúmuúu /-tɨˈmɯmɯːɯ/ *shape:* opposing objects (one above the other below) misaligned, e.g., the upper teeth biting the lower lip

-dɨhrɨjɨ /-tɨˈʔɾɨhi/ *shape:* round and wider than high (e.g., a tuna can)

○-dobééu /-toˈpɛːɯ/ *shape:* pulled together (e.g., as when one closes the top of a sack)[4]

-dochóhoóu /-toˈʧʰoʔoːɯ/ *shape:* two poles leaning towards each other, or the legs of a table pointing inward

○-doódi /-Ⓛtoːti/ *shape:* a crack in a wall, a pole or, the ground

-dodo /-Ⓛtoto/ *shape:* very full and bulging

-doríhjyau /-toˈɾiʔhʲaɯ/ *shape:* two poles leaning away from each other, the legs of a table spread apart

○-dorɨ́ɨu /-toˈɾɨːɯ/ *condition:* having a very dull point (e.g., a nail lacking a sharp point)

-dootóroj+ /-toˈtʰoɾohɨ/ *shape:* hump-backed or curved

-dovíyiíu /-toˈβiji:ɯ/ *shape:* rolled up in leaves (paper, blanket,…)

-dujca /-Ⓛtɯˣkʰa/ *shape:* a cove in the river, a bay in the ocean

-dujúúu /-tɯˈhɯːɯ/ *shape:* upright and leaning forward

-dsaádsa /-Ⓛtsaːtsa/ *shape:* the point of something that is fibrous and splintery

-dsaára /-Ⓛtsaːɾa/ *shape:* uncombed hair, stiff bristles, a porcupine's needles

○-dseédse /-Ⓛtsɛːtsɛ/ *sound:* a disagreeable, bothersome sound

●-dseére /-Ⓛtsɛːɾɛ/ *sound:* a very high pitched sound, e.g., that of a cicada

○-dsɨhdsɨu /-tsɨˈʔtsɨɯ/ *shape:* a very short object

-dsɨrɨ́ɨu /-tsɨˈɾɨːɯ/ *shape:* a big round-bellied clay pot

-dsujgúruu /-tsɯˈˣkɯɾɯː/ *shape:*

[4]Compare tòpé-ːβɛ̀ (gather-sIn dobééve) 'to be gathered together'.

short and chubby

○-ejdéu /-ɛ̀ˣtɛɯ/ *shape:* a thick board or disc

○-eréreéi /-ɛ̀ɾɛɾɛːi/ *shape:* a stick-like thing with a sharp point

○-eróvaáu /-ɛ̀ɾoβaːɯ/ *shape:* liquid-filled blister

-eténiíu /-ɛ̀tʰɛniːɯ/
1. *shape:* the face made by someone not wanting to cough
2. *shape:* the face made by someone having difficulty in defecating

-geréreéi /-kɛ̀ɾɛɾɛːi/ *shape:* protruding (about to come out)

-goñɨ́jɨ /-kò͡ŋiːhi/ *shape:* an open mouth so you can see the teeth

-guhña /-Ⓛkɯˀɲa/ *shape:* S-shaped

○-gurúrujɨ /-kɯ̀ɾɯɾɯhi/ *shape:* a paddle with a rounded point

●-ha or -haá /-Ⓛʔa(ː)/
1. *shape:* a big grouping of animals, birds, fish, or people
2. *shape:* a pineapple

●-hadsɨ /-Ⓛʔatsɨ/ *shape:* a small grouping of people, (of animals, of trees,…)

●-hajca /-Ⓛʔaˣkʰa/ *shape:*
1. a hand of bananas
2. a big pile-up of something

●-hajcu /-Ⓛʔaˣkʰɯ/
1. *shape:* a stump, house pole, post, and such
2. *sound:* a big loud noise

●-hajɨ /-Ⓛʔahɨ/ *shape:* wrapped in leaves or paper and tied at the top

●-haámɨ /-Ⓛʔaːmɨ/ *shape:* very thin (e.g., a leaf or a piece of paper)

●-hajtsɨ /-Ⓛʔaˣtsʰɨ/ *spatial:* a clearing (e.g., a yard around the house)

●-hajchóta /-ˀ̀aˣʧʰotʰa/
1. *time:* duration
2. *spatial:* distance

●-hbahya /-Ⓛˀpaʔʲa/ *shape:* a pile of things

○-hbɨjɨ /Ⓛˀpɨhɨ/ *shape:* wrapped up

●-he or -heé /-Ⓛʔɛ(ː)/ *botanical:* a tree or a tree-like plant

○-heéba /-Ⓛʔɛːpa/ *shape:* having a thin middle (e.g., a girl with a narrow waist)

●-hejte /-Ⓛʔɛˣtʰɛ/
1. *shape:* e.g., the fibers of cotton
2. *shape:* the spines of certain trees

●-heju /-Ⓛʔɛhɯ/ *shape:* a hole

●-hi /-Ⓛʔi/ *shape:* a stalk of bananas (a bunch of grapes,…)

●-hiíba /-Ⓛʔiːpa/ *shape:* a blade of grass or a stalk of grain

●-hiícyo /-Ⓛʔiːkʲʰo/ *shape:* a cactus or pineapple plant

-hijyáwa /-ˀ̀ihʲakpa/ *shape:* a square

○-hɨjpɨ /-Ⓛʔɨˣpʰɨ/ *spatial:* a place to sit on a fallen log

○-hiíñe /-Ⓛʔiːɲɛ/ *spatial:* the sleeping platform that each family has in a multiple family round house

●-hɨ́wa /-Ⓛʔiːkpa/ *shape:* a big open, clear place in a wall or in the jungle that resembles a doorway

-hɨjpɨ /-Ⓛʔɨˣpʰɨ/ See -ɨjpɨ.

-hllahi /-Ⓛˀʧaʔi/ *shape:* a bundle of herbs or flowers that can be held in the hand

-hllalla /-Ⓛˀʧaʧa/ *shape:* resembling the bristles of a brush

-hllohi /-Ⓛˀʧoʔi/ *shape:* resembling small bunches of grapes

●-ho or -hoó /-Ⓛʔo(ː)/
1. *shape:* oval-shaped (e.g., cacao fruit)
2. *spatial:* a room in a house

-hoóba /-Ⓛʔoːpa/ *spatial:* gable end of a house

●-hoóha /-Ⓛʔoːʔa/ *shape:* a group of people, animals or things

●-hoójɑ /-Ⓛʔo:ha/ *shape:* a cylindrical hole, either in the ground or the cavity of an empty tin can

●-hojtsɨ /-Ⓛʔoˣtsʰɨ/ *shape:* hand-shaped

●-hoóu /-Ⓛʔo:ɯ/ *shape:* long and cylindrical (e.g., a log)

●-hoówɑ /-Ⓛʔo:kpa/ *shape:* an open space

●-hulle /-Ⓛʔɯtʃɛ/ *spatial:* some place away from the speaker (⟨yonder⟩)

●-i or -ii /-Ⓛi ∼ -Ⓛi:/ *shape:* a long, slender thing (e.g., a stick, a river)

-ibíiu /-ˡipiiɯ/ *shape:* cheeks puffed out when the mouth is filled with coca powder

●-ihbáu /-ˡiˀpaɯ/ *shape:* things that are bulged out in the middle (e.g., a man with a big stomach)

-ihbúcuúu /-ˡiˀpɯkʰɯ:ɯ/ *shape:* things in uneven lengths

●-ihcyu /-Ⓛiˀkʲʰɯ/ *shape:* some sort of framework

●-ihllo /-Ⓛiˀʧo/ *shape:* resembling a water or cooking pot

●-iíhyo or -ihyo /-Ⓛi:ʔʲo ∼ -Ⓛiʔʲo/ *shape:* things round and long (e.g., a pencil)

-ijyócuúu /-ˡihʲokʰɯ:ɯ/ *position:* things standing up

●-ijyu /-Ⓛihʲɯ/ *time:* a reference to time

●-imíjyɑu /-ˡimihʲaɯ/ *substance:* good, beautiful and appreciated things

○-ityóroóu /-ˡitʲʰoro:ɯ/ *position:* not parallel to the rest

-ivórowɑ /-ˡiβorokpa/ *shape:* twisted and bent (e.g., a board laid out in the sun)

-ɨɨbɨ́bɨho /-ˡi:pɨpɨʔo/ *condition:* a very full mouth, an overfull container

●-ɨhdsɨ /-Ⓛiˀtsɨ/

1. *shape:* fibers (e.g., those that remain after manioc has been grated)
2. *condition:* hair that is bushy and not combed

●-ɨɨ́jɨ /-Ⓛi:hi/ *shape:* an elevated platform or floor

-ɨjpɨ ∼ -hɨjpɨ /-Ⓛiˣpʰɨ ∼ -Ⓛʔiˣpʰɨ/

1. *spatial:* the point from which something develops, e.g., the roots of a plant
2. *figurative:* something's creator or originator

○-ɨtótoói /-ˡɨtʰotʰo:i/ *shape:* bumps caused by many points of things in a bag

-ɨtsɨ́ɨu /-ˡɨtsʰi:ɯ/ *position:* leaning forward

-ɨvóhoóu /-ˡɨβoʔo:ɯ/ *position:* lying face down

●-jɑ /-Ⓛha/ *shape:* a covering (e.g., a house, a pair of pants, a shirt)

-jɑábɑ /-Ⓛha:pa/ *botanical:* a clump of trees left standing in a field that has been cut down

-jɑáu /-Ⓛha:ɯ/ *botanical:* a branch with leaves only at the tip

-jcɑáhɑ /-Ⓛˣkʰa:ʔa/ *botanical:* plants with runners (e.g., vines)

-jcɑáhyɑ /-Ⓛˣkʰa:ʔʲa/ *condition:* very thin (person or animal)

●-jcɑámɨ /-Ⓛˣkʰa:mi/ *spatial:* a place full of mud (e.g., a mud hole)

●-jcoójɨ /-Ⓛˣkʰo:hi/ *time:* day or daytime

●-jcuúve /-Ⓛˣkʰɯ:βɛ/ *time:* late in the day

●-jɨ /-Ⓛhi/ *shape:* a flat, round thing, disk-like

●-jɨ́co /-Ⓛhi:kʰo/ *shape:* resembling a funnel

●-jɨhɑ /-Ⓛhiʔa/ *spatial:* an abandoned field or garden

-jɨho /-Ⓛhiʔo/ *shape:* things put one

on top of the other

•-jɨhto /-Ⓛhiʔtʰo/ *shape:* an emptied container (e.g., an empty sack)

•-jɨjto /-Ⓛhiˣtʰo/
1. *spatial:* a path through space that leads to some place
2. *figurative:* a line of teaching and beliefs

•-jke /-Ⓛˣkʰɛ/ *botanical:* climbing vines

○-jkejɨ /-Ⓛˣkʰɛhiɨ/ *spatial:* a place in the jungle where there are a lot of vines used for tying up things

•-jkeéme /-Ⓛˣkʰɛːmɛ/ *being:* an old man

-jkeéwa /-Ⓛˣkʰɛːkpa/ *shape:* a notch chopped into a tree

•-joóro /-Ⓛhoːɾo/ *shape:* a gully or a canal bed

•-jpa /-Ⓛˣpʰa/ *liquid:* a soup or broth

•-jpacyo /-Ⓛˣpʰakʲʰo/ *liquid:* all liquids

•-jpayu /-Ⓛˣpʰajɯ/ *liquid:* small pockets of water on any surface

•-jpi /-Ⓛˣpʰi/ See -pi.

•-jpille /-Ⓛˣpʰitʃɛ/ See -pille.

-jtatááwa /-ˣtʰaᴸtʰaːkpa/ *shape:* a piled up tangle of vines and leaves forming a shelter

•-jte, -jtye, or -te /-Ⓛˣtʰɛ ∼ -Ⓛˣtʲʰɛ ∼ -Ⓛtʰɛ/ *being:* three or more people or animals (animate plural ⟨AnPl⟩)

•-jtepɨ or -tepɨ /-Ⓛˣtʰɛpʰɨ ∼ -Ⓛtʰɛpʰɨ/ *being:* two women or female animals (dual feminine ⟨DuF⟩)

•-jtetsi or -tetsi /-Ⓛˣtʰɛtsʰi ∼ -Ⓛtʰɛtsʰi/ *being:* two men or male animals (dual masculine⟨DuM⟩)

•-jto /-Ⓛˣtʰo/ *shape:* having a point, e.g., a needle, a cow's horn

○-jtoha /-Ⓛˣtʰoʔa/ *shape:* wrapped up in leaves and tied at one end

•-jtoi /-Ⓛˣtʰoi/
1. *shape:* a curve in the river or on a trail
2. *shape:* the curve on the front of a bald head

○-jtu /-Ⓛˣtʰɯ/ *liquid:* the sap of a tree

•-jtuha /-Ⓛˣtʰɯʔa/ *shape:* resembling a foot

•-jtsuúho /-Ⓛˣtsʰɯːʔo/
1. *shape:* rolled up
2. *figurative:* a sickly person who has no energy
3. *figurative:* a person shivering from the cold

•-ju /-Ⓛhɯ/
1. *shape:* long and narrow, e.g., a trail, a river, a road
2. *figurative:* speech or teachings

•-juúho /-Ⓛhɯːʔo/ *botanical:* a palm leaf

-jumi /-Ⓛhɯmi/ *object:* the ridgepole of a house

•-juúva /-Ⓛhɯːβa/ *shape:* a trail left by tracks made by man or animal

-juwa /-Ⓛhɯkpa/ *shape:* missing a piece

-kehgóɾai /-kʰɛᴸʔkoɾai/ *shape:* thin in the middle and thicker at each end, e.g., a long neck

○-kejtúhi /-kʰɛᴸˣtʰɯʔi/ *shape:* having a long, thin neck

-kejtsétsei /-kʰɛᴸˣtsʰɛtsʰɛi/ *position:* stretching to see something (i.e., craning the neck to get the eyes into a position from which they can see something)

○-kihdyáhɨɨu /-kʰiᴸʔtʲaʔiːɯ/ *shape:* of a very staight cut board

-kihvújɨ /-kʰiᴸʔβɯhi/ *shape:* a lady's short haircut

-kiíjye /-Ⓛkʰiːhʲɛ/ *botanical:* the cap of a tree including all the branches and leaves

○-kiityúu /-kʰiᴸːtʲʰɯɯ/ *shape:* a notched cut around the circumference of a cylindrical object (e.g., a

tree)

○-kiityúruj˖ /-kʰi:tʲʰɯrɯhi/ *shape:* a flat cut around the circumference of a cylindrical object

-llaáhi /-Ⓛʧa:ʔi/ *shape:* an old deformed basket

-llahllár˖j˖ /-ʧaˀʧar˖ihi/ *shape:* flapping, e.g., a bit of torn cloth on a shirt that flaps

○-llahp˖r˖co or -llap˖r˖co /-ʧaˀpʰi˖rik˖ʰo ∼ -ʧapʰi˖rik˖ʰo/ *being:* a short, pot-bellied person

○-llajvávau /-ʧaˣβaβaɯ/ *shape:* a person, animal or thing with a bulge in the middle

●-llaára /-Ⓛʧa:ɾa/
1. *condition:* old torn clothes
2. *figurative:* a person dressed in rags

-llavájriwa /-ʧaβaˣɾikpa/ *shape:* a hole made in something by violence, e.g., an opening made in a palm leave roof by a strong wind

●-lle /-Ⓛʧɛ/ *being:* a woman or female animal (singular feminine ⟨SgF⟩)

-lle /-Ⓛʧɛ/ *spatial:* yonder, over there

-llevéhrou /-ʧɛβɛˀɾoɯ/ *shape:* circular

○-lli /-Ⓛʧi/ *shape:* a bunch of fibers tied together at one end

●-lliíhyo /-Ⓛʧi:ʔʲo/ *shape:* palm heart

○-lliihyój˖ /-ʧi:ʔʲoh˖i/ *shape:* rays of light, e.g., those made by the sun or a flashlight

●-llijyu /-Ⓛʧihʲɯ/ *shape:* any kind of powder

○-llovái /-ʧoβai/ *shape:* conical, long and cylindrical with a gradually diminishing thickness toward the end

-lloívoj˖ /-ʧoiβoh˖i/ *shape:* things twisted and spiral

-lloóllo /-Ⓛʧo:ʧo/ *shape:* things wrinkled

○-llum˖ba or -llum˖:ho /-ʧɯm˖ipa ∼ -ʧɯmi:ʔo/ *shape:* thick and prominent eyelids

-maacyáj˖ /-ma:kʲʰah˖i/ *condition:* a color streak that can appear on a shiny surface, e.g., a streak of oil in water

○-mah˖táj˖ /-maˀtʰah˖i/ *shape:* a dark blotch on a surface

○-mapóhewa /-mapʰoʔɛkpa/ *shape:* a large dark blotch on a surface

-mavíyoóho /-maβijo:ʔo/ *shape:* things that are curled up, e.g., dry leaves or hair

●-me
1. with nouns: /-Ⓛmɛ/ *being:* three or more people or animals (animate plural with a few animate nouns ⟨AnPl⟩)
2. with verbs: /-Ⓛ◯mɛ/ *being:* three or more people or animals (animate plural ⟨AnPl⟩)

○-mibyééu /-mipʲɛ:ɯ/ *shape:* wrapped up

-mihñíu /-miˀɲiɯ/ *shape:* a pile of things aligned lengthwise

-mivíyiíu /-miβiji:ɯ/ *shape:* coiled up, e.g., a coiled up rope

●-m˖ or -m˖˖ /-Ⓛmi(:)/ *shape:* a canoe or other vehicles of transportation

●-m˖˖he /-Ⓛmi:ʔɛ/ *shape:* a skin of an animal, a sheet of metal

●-m˖˖ho /-Ⓛmi:ʔo/ *shape:* flat thin sheet, e.g., bark of tree, a sheet of metal, fingernail

●-m˖jco /-Ⓛmiˣkʰo/
1. *shape:* a fenced enclosure
2. *shape:* a circle of people

-m˖˖m˖ /-Ⓛmi:mi/ *shape:* a dent or indentation

●-m˖˖ro /-Ⓛmi:ɾo/ *shape:* a shallow

cavity

-mɨróójɨ /-mɨ́ro:hɨ/ *shape:* a concavity in a surface

•-mo /-Ⓛmo/ *shape:* a large body of water, e.g., a big river, the ocean

-mocódsɨ́ɨu /-mók^{h}otsi:ɯ/ *shape:* an angry facial expresion

•-motsííu /-mótsʰi:ɯ/ *condition:* turning dark before it starts to rain

•-mu /-Ⓛmɯ/
1. *shape: umarí* fruit
2. *shape:* signal drum

○-muhmúu /-mɯ̀ʔmɯɯ/ *object:* a termite nest

•-mupɨ /-Ⓛmɯpʰɨ/ *being:* two women or female animals (dual feminine ⟨DuF⟩)

•-mutsi /-Ⓛmɯtsʰi/ *being:* two men or male animals (dual masculine ⟨DuM⟩)

•-naatsóu /-nà:tsʰoɯ/ *shape:* thing with a sharp point

•-ne or -ñe /-nɛ ∼ -ɲɛ/ the default classifier (maximally unspecified) There are two (or more) cases which differ in tonal effect and meaning:
1. /-Ⓛ◯nɛ/ thing
2. /#Ⓗ…ʰnɛ/ event

•-nehníjyau /-nɛ̀ʔnihʲaɯ/ *condition:* bad things or bad actions

•-nejcu /-Ⓛnɛˣkʰɯ/ *spatial:* the side of something, e.g., the side of a house

-nejcúu /-nɛ̀ˣkʰɯɯ/ *shape:* strong muscles

•-niíhyo /-Ⓛni:ʔʲo/ *being:* woman who has children, animal with young

•-nijkye /-Ⓛniˣkʲʰɛ/ *spatial:* a burial place, grave

○-niíñe /-Ⓛni:ɲɛ/ *spatial:* a place beyond

○-nipájchau /-nìpʰaˣʧʰaɯ/ *shape:* a full bladder or other things of that shape, e.g., a blown up balloon

-nɨhcórou /-nɨ̀ʔkʰoɾoɯ/ *shape:* things resembling a big ladle or dipper (used in the kitchen)

-nocóriwa /-nòkʰoɾikɸa/ *shape:* things resembling the downward curve of a hawks beak

-nohcórou /-nòʔkʰoɾoɯ/ *shape:* things curved, e.g., a rainbow

•-noóra /-Ⓛno:ɾa/ *shape:* holes made by breaking through to a cavity below the surface

•-nuhba /-Ⓛnɯʔpa/ *time:* used to number months (in relation to the moon)

○-nuuhéju /-nɯ̀:ʔɛhɯ/
1. *condition:* a rebellious person, one who does not listen to advice
2. *condition:* people, animals or things that do not move in a straight line

○-nuhmɨ́rajɨ or -numɨ́hrau /-nɯ̀ʔmiɾahɨ ∼ -nɯ̀miʔɾaɯ/ *shape:* big ears

•-nuhtsɨ /-Ⓛnɯʔtsʰɨ/ *shape:* a mound formed at the foot of a fallen tree

○-nuumɨ́ho /-nɯ̀:miʔo/ *being:* a person or animal with big ears

○-nuhmɨ́u /-nɯ̀ʔmiɯ/ *shape:* cups and pots with handles (“ears”).[5]

•-ñaáhi /-Ⓛɲa:ʔi/ *shape:* things that have dents in them

-ñohco /-Ⓛɲoʔkʰo/ *shape:* a curved

[5]Compare -nɯ̀ʔmiɾahɨ ∼ -nɯ̀miʔɾaɯ ‘ears’, -nɯ̀:miʔo ‘person or animal with big ears’, and -nɯ̀ʔmiɯ ‘cups and pots with handles (“ears”)’. The common semantic component “ear” obviously corresponds to the recurring partial nɯ̀ʔmɨ.

[6]Compare nɔ̀ʔkʰo ‘stork’.

handle on a pot[6]

-ñuhííu /-ɲɯ̃ˀiːɯ/ *shape:* a face with a frown

-oobɨrau /-o̲ːpɨɾaɯ/ *shape:* a solid sphere of some substance, e.g., a ball of dough or mud

-oodsɨjyau /-o̲ːtsɨhʲaɯ/ *shape:* a bulky place around a pole, tree or vine

○-ohcu /-Ⓛoˀkʰɯ/ *shape:* broken pieces of pottery on which to place a pot above the fire

-ohcúu /-o̲ˀkʰɯɯ/ *shape:* a swelling

●-oóhi /-Ⓛoːʔi/ *being:* jaguar, dog

-ohtóu /-o̲ˀtʰoɯ/ *shape:* a round hole in a shirt, board or wall

○-omóniíu /-o̲moniːɯ/ *shape:* deformed (e.g., an animal that has been burned by a fire)

●-oonái /-o̲ːnai/ *shape:* rolled up (e.g., a piece of paper or a pancake)

○-ootsɨrɨho /-o̲ːtsʰɨɾɨʔo/ *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

●-pachíchaáu /-pʰa̲tʃʰitʃʰaːɯ/ *shape:* things that are criss-crossed

●-paájɨ /-Ⓛpʰaːhɨ/
1. *shape:* a tubular hole (e.g., a pipe, a hollow tree trunk)
2. *shape:* shoe

●-pajtsɨ /-Ⓛpʰaˣtsʰɨ/ *shape:* circular, e.g., ring, roll of wire

●-palli /-Ⓛpʰatʃi/ *botanical:* a planted field

●-patúúu /-pʰa̲tʰɯːɯ/ *shape:* stretched out, e.g., a rubber band pulled taut

○-patúruúi /-pʰa̲tʰɯɾɯːi/ *position:* a person or animal stetched out

○-patúruúu /-pʰa̲tʰɯɾɯːɯ/ *position:* a rope or vine sretched out between two trees

-patsááho /-pʰa̲tsʰaːʔo/ *botanical:* trees left standing in a field that has been cut down

●-pejco /-Ⓛpʰɛˣkʰo/ *time:* darkness or night

○-peróówa or -peyóówa /-pʰɛ̲ɾoːkpa ~ -pʰɛ̲joːkpa/ *position:* thing not in its place

●-pi or -jpi /-Ⓛpʰi ~ -Ⓛˣpʰi/ *being:* a man or a male animal (singular masculine ⟨SgM⟩)

●-pille or -jpille /-Ⓛpʰitʃɛ ~ -Ⓛˣpʰitʃɛ/ *being:* a woman or a female animal (singular feminine ⟨SgF⟩)

○-pihchúu /-pʰi̲ˀtʃʰɯɯ/
1. *being:* two people or animals on top of each other
2. *figurative:* used to form the number three

-pihllárɨjɨ /-pʰi̲ˀtʃaɾihɨ/ *shape:* curled under (e.g., the lower lip curled down)

-piijyúu /-pʰi̲ːhʲɯɯ/ *shape:* having an end curled back sharply, e.g., a fishhook

○-pinónowa /-pʰi̲nonokpa/ *shape:* having a twisted point

-piúmiíu /-pʰi̲ɯmiːɯ/ *shape:* doubled back and flattened, e.g., the crimped edge of a sheet of tin

●-pɨ /-Ⓛpʰɨ/ *botanical:* bitter cassava root (manioc)

○-pɨɨha /-Ⓛpʰɨːʔa/ *substance:* very limp or flexible

-pɨhra /-Ⓛpʰɨˀɾa/ *shape:* flexible and hanging down, e.g., the ears of some dogs

-pɨɨjɨ /-Ⓛpʰɨːhɨ/ *substance:* having the consistency of mashed potatoes

-pɨóójɨ /-pʰi̲ːoːhɨ/ *action:* a duck walk (a gait like a duck)

-pɨúdɨɨjɨ /-pʰi̲ɯtɨːhɨ/ *shape:* a con-

vexity in a surface, e.g., an upward bulge in the floor of a canoe

○-pohrɨ /-Ⓛpʰoˀɾɨ/ *shape:* wrapped up (e.g., a lump of dough)

○-puhpúwa /-pʰɯ̀ˀpʰɯkpa/ *shape:* a haircut in the form of a bowl

○-raáhe /-Ⓛɾaːʔɛ/ *being:* a chicken

●-rahja /-Ⓛɾaˀha/ *shape:* a break in an enclosure caused by missing poles

●-raáho or -yaáho /-Ⓛɾaːʔo ∼ -Ⓛjaːʔo/
1. *spatial:* the distance or space between two points
2. *time:* a span or period of time

●-raára /-Ⓛɾaːɾa/ *shape:* punched full of holes; rotted

-ravájchau /-ɾa̲βaˣʧʰaɯ/ *shape:* resembling a bloated stomach

-rehmɨ́jɨ /-ɾɛ̲ˀmɨhɨ/ *being:* having very short legs or arms

-reére /-Ⓛɾɛːɾɛ/ *substance:* things glutinous and transparent, e.g., clear gelatine

-reróóu /-ɾɛ̲roːɯ/ *condition:* leaning to one side

●-revóóu /-ɾɛ̲βoːɯ/ *shape:* a person, animal or thing twisted toward the back, e.g., a person looking over his shoulder

-rihjyáwa /-ɾɪ̲ˀhʲakpa/ *shape:* things having the form of an arch (e.g., a pair of pliers)

○-rihji /-Ⓛriˀhi/ *shape:* bad and missing teeth

○-rihpájɨ /-ɾɪ̲ˀpʰahɨ/ *being:* a bow-legged person or animal

-rijyááu /-ɾɪ̲hʲaːɯ/ *position:* legs extended as when taking a step

-rɨjpáyu /-rɨ̲ˣpʰajɯ/ *being:* a short person with a big stomach

-rɨ́ɾɨ /-Ⓛɾiːɾɨ/ *condition:* a runny sore or infected, drippy eyes

●-ro or -yo /-Ⓛɾo ∼ -Ⓛjo/ *shape:* a bottle

○-rohcájɨ /-ɾo̲ˀkʰahɨ/ *shape:* crescent, half-moon

-rohllo /-Ⓛɾoˀʧo/ *shape:* long, thin and curved, e.g., a car's leaf spring

-rohpéwa /-ɾo̲ˀpʰɛkpa/ *shape:* a deformed fruit

○-rootímyeho /-ɾo̲ːtʰimʲɛʔo/ *being:* a person or animal with a solid, well built body

-rootóho /-ɾo̲ːtʰoʔo/ *shape:* having a thick middle

-rovíícyo /-ɾo̲βiːkʲʰo/ *shape:* concave, e.g., the cavity of an ear

○-ruhjɨ /-Ⓛɾɯˀhɨ/ *shape:* long, thin and wavy (not straight)

-ruhllu /-Ⓛɾɯˀʧɯ/ *shape:* permanently bent joint, e.g., a leg that can not be extended

-ruhrái /-ɾɯ̲ˀɾai/ *shape:* long and cylindrical

●-rujtsi /-Ⓛɾɯˣtsʰi/ *object:* a woven basket

○-ta /-Ⓛtʰa/ *shape:* a portion of something

-tahcáraji /-tʰa̲ˀkʰaɾahɨ/ *position:* sprawled out

-tajɨ́wa /-tʰa̲hɨkpa/ *shape:* smashed very flat

○-tajkíiu or -tajkíba /-tʰa̲ˣkʰiiɯ ∼ -tʰa̲ˣkʰipa/ *shape:* a person or animal with very thick legs

-tallíyiíu /-tʰa̲ʧiji:ɯ/ *shape:* twisted, e.g., a propeller

-tamɨ́duúu /-tʰa̲mɨtɯːɯ/ *shape:* a low place in a flat surface

-taríjyaáu /-tʰa̲ɾihʲaːɯ/ *action:* standing with the legs apart

-tarójɨ́ɨu /-tʰa̲ɾohɨːɯ/ *shape:* long and curved (e.g., a tree, branch, or bar)

-taáta /-Ⓛtʰaːtʰa/ *shape:* small

fibers in disarray, e.g., uncombed hair

-tyaátya /-Ⓛtʲʰa:tʲʰa/ *shape:* having collapsed sides, e.g., an empty soft-sided suitcase

-tehkéreu /-tʰɛ̀ˀkʰɛrɛɯ/ *shape:* round and smooth, e.g., the surface of a bald head

●-tojco /-Ⓛtʰoˣkʰo/ *spatial:* a corner in a room (in a box,…)

-tyohkéyeu /-tʲʰò̀ˀkʰɛjɛɯ/ *shape:* a swelling on the body

-tohra /-Ⓛtʰoˀra/ *shape:* suspended empty bag-like thing, e.g., an empty bag hung on a hook

-tuátsaáj˧ /-tʰɯ̀atsʰa:hi/ *shape:* having the legs upward (e.g., a table turned up side down, an animal with its legs up in the air)

-tuhra /-Ⓛtʰɯˀra/ *shape:* a hanging flexible object that flaps in the wind

○-tuhtsáj˧ /-tʰɯ̀ˀtsʰahi/ *shape:* the snout of a pig

●-tujke /-Ⓛtʰɯˣkʰɛ/ *botanical:* the stem of a leaf or a fruit

○-tujkéba /-tʰɯ̀ˣkʰɛpa/ *botanical:* a thick stem of a fruit

-tujúi /-tʰɯ̀hɯi/ *shape:* having a sharp point, e.g., the pointed nose of a tapir or anteater

●-tujúwa /-tʰɯ̀hɯkpa/ *shape:* having a dull point, e.g., a very prominent nose

-turúúu /-tʰɯ̀rɯ:ɯ/ *condition:* leaning over about to fall

○-turúruúj˧ /-tʰɯ̀rɯrɯ:hi/ *condition:* standing upright but very flexible, e.g., a rush stalk

-tsaáhe /-Ⓛtsʰa:ʔɛ/ *shape:* a handful of long, thin cylindrical objects (small rods)

○-tsahtsáwa /-tsʰà̀ˀtsʰakpa/ *shape:* resembling a large lock of hair

-tsañúúi /-tsʰà̀ɲɯ:i/ *shape:* spool of thread and similar things

-tsaára /-Ⓛtsʰa:ra/ *shape:* needle-like

-tseróój˧ /-tsʰɛ̀ɾo:hi/ *shape:* cross-eyed

●-tsii or -chii /-Ⓛtsʰi: ∼ -Ⓛtʃʰi:/ *spatial:* a place in general

●-tsiíba /-Ⓛtsʰi:pa/ *spatial:* peninsula

●-tsijtyo /-Ⓛtsʰiˣtʲʰo/ *shape:* a line around an object's circumference

-tsipáraáu /-tsʰɪ̀pʰaɾa:ɯ/ *shape:* tear or rupture

-tsipóóu /-tsʰɪ̀pʰo:ɯ/ *shape:* a big bend made in something (e.g., a pole bent without breaking)

●-ts˧ /-Ⓛtsʰi/ *being:* a baby

○-tso /-Ⓛtsʰo/ *shape:* long things that gradually taper toward the tip

-tsoodónoho /-tsʰò̀:tonoʔo/ *being:* a person or animal with a large chest

●-tsohna /-Ⓛtsʰoˀna/ *shape:* a pyramid or upright cone

●-tsoóho /-Ⓛtsʰo:ʔo/ *botanical:* plants or trees with one root but a number of trunks

●-tsoója /-Ⓛtsʰo:ha/ *shape:* hollow cone, funnel-shaped

-tsovúúruho /-tsʰò̀βɯ:ɾɯʔo/ *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

●-tsuúho /-Ⓛtsʰɯ:ʔo/ *being:* a person or animal with short bent arms or legs

●-tsuj˧ /-Ⓛtsʰɯhi/ *shape:* the flat, thin "ribs" that grow along the trunks of some trees

-tsuúri /-Ⓛtsʰɯ:ɾi/ *shape:* long narrow stip

●-tsuútsu /-Ⓛtsʰɯ:tsʰɯ/ *shape:* a fragment (of something)

●-u /-Ⓛɯ/ *shape:* spherical, e.g., a ball, a marble

○-ubáu /-ɯ̀ᴸpaɯ/ *being:* a person missing an arm or a leg

-uubóu /-ɯ̀ᴸːpoɯ/ *shape:* a small swelling on the surface

●-uúha /-Ⓛɯːʔa/ *shape:* a single kernel or chip (e.g., a kernel of wheat, a grain of sand)

-uúho /-Ⓛɯːʔo/ *spatial:* place where many vines hang from the trees

-uhro /-Ⓛɯˀɾo/ *shape:* a tall pot or jar

-uhtsárau /-ɯ̀ᴸˀtsʰaɾaɯ/ *shape:* hair standing on end, e.g., that of a porcupine

●-újcucu /-ɯˣkʰɯkʰɯ/[7] *spatial:* the place where two trails meet

-ujéého /-ɯ̀ᴸhɛːʔo/ *action:* turning sideways to pass through a narrow place

-umɨ́cou or -humɨ́cou /-ɯ̀ᴸmɨkʰoɯ ~ -ʔɯ̀ᴸmɨkʰoɯ/ *shape:* a very prominent forehead on man or animal (This is formed from ʔɯmɨkʰo -húmɨ́co 'forehead', which is formed from ʔɯ̀ᴴmɨ̀ 'face'.)

-umúúu /-ɯ̀ᴸmɯːɯ/ *shape:* lips held together very tightly

-uníbau /-ɯ̀ᴸnipaɯ/ *shape:* very big lips

○-uutsíyoɟɨ /-ɯ̀ᴸːtsʰijohɨ/ *shape:* lying on its side

○-utsúcuúu /-ɯ̀ᴸtsʰɯkʰɯːɯ/ *shape:* tight fitting (e.g., a small shirt on a big man)

-vaája /-Ⓛβaːha/ *shape:* rip in a cloth

○-vaáre /-Ⓛβaːɾɛ/ *being:* a person controlled by a demon

-vaári /-Ⓛβaːɾi/ *shape:* tattered, e.g., clothing

○-vechíhcyo /-βɛ̀ᴸtʃʰiˀkʲʰo / *substance:* very curved and flexible at the tip, e.g., a fishing rod

○-vehrátsai /-βɛ̀ᴸˀɾatsʰai/ *shape:* oval

-vihcya /-Ⓛβiˀkʲʰa/ *shape:* sharply curved, e.g., a fishhook

○-vihcyo /-Ⓛβiˀkʲʰo/ *shape:* a thing that has a hook on the end

-vijvíi /-βɨ̀ᴸˣβii/ *shape:* a thing that has the shape of a large claw or fingernail

○-viívi /-Ⓛβiːβi/ *shape:* elongated openings (e.g., the eye of an oriental person)

●-viíu /-Ⓛβiːɯ/ *shape:* a piece of something

●-vɨ́a /-Ⓛβɨːa/ *shape:* a puncture made by a needle

○-vɨ́jtsoco /-βɨ̀ᴸoˣtsʰokʰo/ *shape:* a very round hole (e.g., the hole made by rounding the lips)

-vɨ́tso /-Ⓛβɨːtsʰo/ *shape:* tubular with both ends open (e.g., a pipe)

-vuúdo /-Ⓛβɯːto/ *shape:* a short, broken piece of a vine

-vuúru /-Ⓛβɯːɾɯ/ *shape:* short and thick

●-wa /-Ⓛkpa/ *shape:* long, flat and roughly rectangular, e.g., plank, door, bench, table, machete

-wachájaáu /-kpa̰ᴸtʃʰaha:ɯ/ *shape:* things in total disarray

●-wachéke /-kpa̰ᴸtʃʰɛkʰɛ/ *shape:* two things crossed, e.g., a cross

-wadáriíu /-kpa̰ᴸtaɾiːɯ/ *shape:* lodged between other things

-wadéke /-kpa̰ᴸtɛkʰɛ/ *spatial:* the place at which something divides (e.g., a branch on a tree or a trail leads off in another direction)

○-waádi /-Ⓛkpaːti/ *shape:* a long split or crack (as there might be in a board or in a wall)

[7]Note that the first syllable bears high tone, unlike the other trisyllabic classifiers.

-wadsɨroóho /-kpa̱tsiɾo:ʔo/ *shape:* bulged out due to internal pressure, e.g., cheeks bulging with coca powder

•-waáhye /-Ⓛkpa:ʔʲɛ/ *object:* crumbs

•-waáhyo /-Ⓛkpa:ʔʲo/ *shape:* things lying side by side, e.g., a log raft

•-wajca /-Ⓛkpaˣkʰa/ *botanical:* branch of a tree (or perhaps other rigid limb-like projections)

•-wajcyo /-Ⓛkpaˣkʲʰo/ *shape:* a hook on the end of a pole used to pull down fruit

•-waju /-Ⓛkpahɯ/ *shape:* ground that is not level

-wallááu /-kpa̱tʃa:ɯ/ *position:* a thing with the open side up, a person on his or her back

•-waáne /-Ⓛkpa:nɛ/ *shape:* end of a hip roof

○-wanɨjrɨwa /-kpa̱niˣɾiɬkpa/
1. *shape:* puffed up chest, e.g., that of a strutting turkey
2. *figurative:* a man showing his prowess

•-waanúwa /-kpa̱:nɯkpa/ *shape:* a notch made on a pole or tree

-wapɨraáu /-kpa̱pʰiɾa:ɯ/ *position:* clothes hung over a line to dry

-waríjyaáu /-kpa̱ɾihʲa:ɯ/ *position:* out of place, misaligned

-watyúúu /-kpa̱tʲʰɯ:ɯ/ *position:* not lined up (with the orientation of its background)

-watsííu /-kpa̱tsʰi:ɯ/
1. *condition:* a thing not finished
2. *condition:* a thing of two colors

-watsújaáu /-kpa̱tsʰɯha:ɯ/ *shape:* flared out, e.g., a skirt that spreads out at the bottom

-wayááu /-kpa̱ja:ɯ/ *shape:* turned to one side, e.g., person looking to the side, canoe not going straight

•-waáwa /-Ⓛkpa:kpa/ *shape:* a canal or ditch

-wayóóho /-kpa̱jo:ʔo/ *shape:* a thing twisted at the tip

-wayóójɨ /-kpa̱jo:hi/ *shape:* a thing out of its right shape, e.g., a twisted mouth

○-weéwe or -wyeéwye /-Ⓛkpɛ:kpɛ ~ -Ⓛkpjɛ:kpjɛ/ *shape:* a very short crack

•-yojke /-Ⓛjoˣkʰɛ/ *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 mɨ́a̱mʉ́nàà (mɨ́amúnaa) 'the people' and all others as tsʰíˣtʲʰè mʉ́nàà (tsíjtye 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 (áβʲɛ́hʉ̀ʉ́pè ávyéjuúbe) who was in full control of those in his clan íàβʲɛ́hʉ̀ʉ (íavyéju).

Each clan traced its ancestry back to a totem (ìhʲɛ́ɛ̀nɛ̀ ijyéene), either animate or inanimate; this was revered and not eaten by the clan members. The clan totem was the name (ítʲʰòˀhípà ítyohjɨ́ba) of the clan members. Each clan had its own design (íò:nóβà íoonóva) 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

[1] See (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.

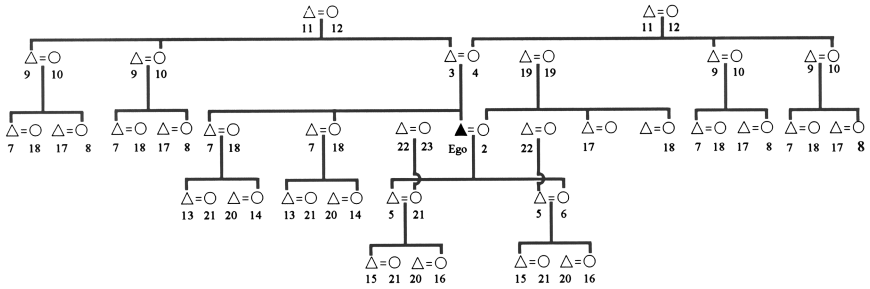


Figure F.1 Terms of reference for kinsmen

The following terms—corresponding to figure F.1—are used to refer to someone in terms of kinship relationship:

1. átʲʰá:hɨ̀ɨ́ (*átyáájɨɨ́*) 'my husband'
2. átʲʰá:pàá (*átyáábaá*) 'my wife'
3. ʧì?íjò (*llihíyo*) 'father', tʰá:kʰá:nìí (*táácáánií*) 'my father'
4. kpà?áɾò (*waháro*) 'mother', tʰá:tsʰí:hʉ̀ʉ́ (*táátsɨɨ́juú*) 'my mother'
5. àˣʧʰì (*ajchi*) 'my son'[2]
6. àhʲúkpà (*ajyúwa*) 'my daughter'[3]
7. tʰáɲà?pè (*táñahbe*) 'my brother (or male first cousins)'
8. tʰáɲà:ʧè (*táñaálle*) 'my sister (or female first cousins)'
9. nàníjò (*naníyo*) 'uncle', tʰá:ɲá?nìí (*tááñáhnií*) 'my uncle'
10. mè?éɾò (*mehéro*) 'aunt', tʰáì:mʲè (*táiímye*) 'my aunt'
11. tʰà?tíjò (*tahdíyo*) 'grandfather', tʰá:tʲʰá?tìí (*táátyáhdií*) 'my grandfather'
12. tʰà:ʧéɾò (*taalléro*) 'grandmother', tʰá:tʲʰá:ʧèé (*táátyáálleé*) 'my grandmother'
13. tòmíkpʉ̀ (*domíwu*) 'nephew', tʰápʲè:pè (*tábyeébe*) 'my nephew'
14. tò?ɨ́kpʉ̀ (*dohɨ́wu*) 'niece', tʰápʲè?ʧè (*tábyehlle*) 'my niece'
15. à?ʧʰíkpʉ̀ (*ahchíwu*) 'grandson', tʰáìá:ʧʰì (*táiááchi*) 'my grandson'
16. à?kʲʰúkpà (*ahcyúwa*) 'granddaughter', tʰáìá:kʲʰʉ̀kpà (*táiáácyuwa*) 'my granddaughter'
17. átʲʰónʉ̀:pè (*átyónuúbe*) 'my brother-in-law'

[2] tʰáˣtsʰì:méné (*tájtsɨɨméne*) 'my child' is also used.
[3] tʰáˣtsʰì:méné (*tájtsɨɨméne*) 'my child' is also used.

18. átʲʰónɯ̀ʊ̀ʧɛ̀ (átyónulle) ‘my sister-in-law’
19. ápá:pɛ̀ɛ́ (ábáábeé) ‘my father-in-law or mother-in-law’
20. á:hʲàá (áájyaá) ‘my son-in-law’
21. tʰáìá:hà (táiáája) ‘my daughter-in-law’
22. tʰánìɯ́:pɛ̀ (tániúúbe) ‘my son’s or daughter’s father-in-law’
23. tʰánìɯ́:ʧɛ̀ (tániúúlle) ‘my son’s or daughter’s mother-in-law’

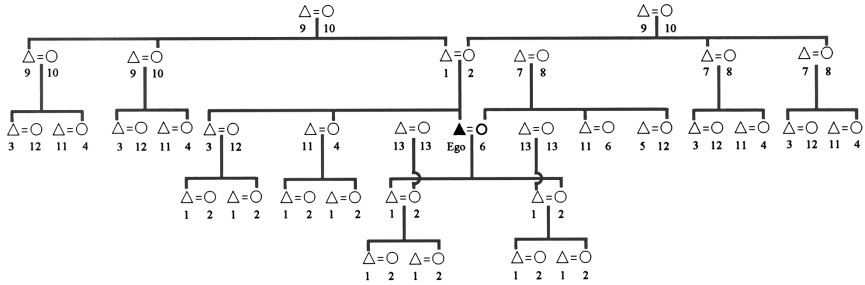


Figure F.2 Terms for addressing another person

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. tóʔmìˣ (dóhmij) ‘sister, female first cousin, niece’
5. mɯ̀:pɛ̀ˣ (muúbej) ‘husband’
6. mɯ̀:ʧɛ̀ˣ (muúllej) ‘wife’
7. nánìˣ (nánij) ‘uncle, father-in-law’
8. méʔɛ̀ˣ (méhej) ‘aunt, mother-in-law’
9. tʰáʔtìˣ (táhdij) ‘grandfather’
10. tʰà:ʧɛ̀ˣ (taállej) ‘grandmother’
11. átʲʰòˣ (átyoj) ‘brother-in-law’
12. púʔhɨˣ (búhjɨj) ‘sister-in-law’
13. tʰánìˣ (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”.

- Bora does not distinguish cross-cousins[4] and parallel cousins.[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

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 átʲʰá:pàá (*átyáábaá*) 'my wife' and addresses her as mùːʧɛ̀ˣ (muúllej).[6] Other persons refer to his wife as ítʲʰá:pàá (*ítyáábaá*) 'his wife' or mɛ̀kpà (*mewa*) (before child-bearing) and mɛ́kpàɲí:ʔʲò (*méwañííhyo*) (after child-bearing).

The wife refers to her husband as átʲʰá:hɨ̀ɨ́ (*átyáájɨɨ́*) 'my husband' and addresses him as mùːpɛ̀ˣ (muúbej).[7] Other persons refer to her husband as ítʲʰá:hɨ̀ɨ́ (*ítyáájɨɨ́*) 'her husband' or áhʲùʉ́ (*ájyuú*).

[4]That is, mother's brother's children and father's sister's children.

[5]That is, mother's sister's children and father's brother's children.

[6]This is muː-ʧɛ-ˣ Muú-lle-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.

[7]This is muː-pɛ-ˣ 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 nɛ́ʔnìˣ (néhnij) '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 tʰáɲàʔpɛ̀ (táñahbe) 'my brother' or tʰáɲà:ʧɛ̀ (táñaálle) 'my sister'. Other persons refer to them as íɲàʔpɛ̀ (íñahbe) 'his or her brother' or íɲà:ʧɛ̀ (íñaálle) 'his or her sister'.

A brother addresses his sister or a female cousin as tóʔmìˣ (dóhmij). A sister addresses her brother or a male cousin as pʰéɲɯ̀ˣ (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 átsʰì:mɛ̀ (átsɨ́me) 'my children' or tʰáˣtsʰì:mɛ́nɛ̀ (tájtsɨ́méne) 'my child'. A son is referred to as àˣʧʰì (ajchi) or àˣʧʰíkpɯ̀ (ajchíwu) and is addressed as either ʧíʔìˣ (llíhij), ʧìʔíjòˣ (llihíyoj) or ʧìʔíɯ̀ˣ (llihíuj). A daughter is referred to as àhʲɯ́kpà (ajyúwa). She is addressed as either kpáʔàˣ (wáhaj), kpàʔáròˣ (wahároj) or kpàʔáɯ̀ˣ (waháuj). Others refer to the son as íʧì (íllií) 'his or her son' and to the daughter as ítsɨ́ (ɬdsɨ́ɬ) 'his or her daughter'.

Children refer to their father as ʧìʔíjò (llihíyo), ʧìʔíɯ̀ (llihíu) or tʰá:kʰá:nìí (táácáánií) 'my father' and address him the same as a parent addresses a son: ʧíʔìˣ (llíhij), ʧìʔíjòˣ (llihíyoj) or ʧìʔíɯ̀ˣ (llihíuj).

Children refer to their mother either as kpàʔárò (wahároˤ), kpàʔáɯ̀ (waháu) or tʰá:tsʰɨ́:hɯ̀ɯ́ (táátsɨ́ɬjuú) 'my mother' and address her the same as a parent addresses a daughter: kpáʔàˣ (wáhaj), kpàʔáròˣ (wahároj) or kpàʔáɯ̀ˣ (waháuj). Thus parents and children use reciprocal terms af address.

Others refer to their father as í:kʲʰá:nìí (íícyáánií) 'his or her father' and to their mother as í:tsʰɨ́:hɯ̀ɯ́ (ɨ́ɬtsɨ́ɬjuú) 'his or her mother'.

F.4 Grandparent — grandchild relationship

Grandparents refer to a grandson or a sibling's grandson as àʔtʃʰíkpʉ̀ (*ahchíwu*) or tʰáìáːtʃʰì (*táiááchi*) 'my grandson' and address him as tʃíʔìˣ (*llíhij*), tʃìʔíjòˣ (*llihíyoj*) or tʃìʔíʉ̀ˣ (*llihíuj*). A granddaughter or a sibling's granddaughter is referred to as àʔkʲʰʉ́kpà (*ahcyúwa*) or tʰáìáːkʲʰʉ̀kpà (*táiáácyuwa*) 'my grandaughter', and addressed as kpáʔàˣ (*wáhaj*), kpàʔáròˣ (*wahároj*) or kpàʔáʉ̀ˣ (*waháuj*). Others refer to them as îáːtʃʰì (*íiááchi*) 'his or her grandson' and îáːkʲʰʉ̀kpà (*íiáácyuwa*) 'his or her granddaughter'.

Grandchildren refer to a grandfather as tʰàʔtíjò (*tahdíyo*), tʰàʔtíʉ̀ (*tahdíu*) or tʰáːtʲʰáʔtìí (*táátyáhdií*) 'my grandfather' and address him tʰáʔtìˣ (*táhdij*), tʰàʔtíjòˣ (*tahdíyoj*) or tʰàʔtíʉ̀ˣ (*tahdíuj*).

A grandmother is referred to as tʰàːtʃérò (*taalléro*), tʰàːtʃéʉ̀ (*taalléu*) or tʰáːtʲʰáːtʃèé (*táátyáálleé*) 'my grandmother', and addressed as tʰàːtʃèˣ (*taállej*), tʰàːtʃéròˣ (*taalléroj*) or tʰàːtʃéʉ̀ˣ (*taalléuj*).

Others refer to them as íːtʲáʔtìí (*íídyáhdií*) 'his or her grandfather' and íːtʲʰáːtʃèé (*íítyáálleé*) 'his or her grandmother'. The same terminology is used for maternal as well as paternal grandparents. tʰáʔtìˣ (*táhdij*) and tʰàːtʃèˣ (*taállej*) are also used when addressing a man or woman old enough to be one's grandparent, 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 tʰáɲàʔpè (*táñahbe*) 'my brother' or tʰáɲàːtʃè (*táñaálle*) 'my sister' with the term tòmíkpʉ̀ (*domíwu*) or tʰápʲèːpè (*tábyeébe*) 'my nephew' and address him either as tʃíʔìˣ (*llíhij*) or pʰéɲʉ̀ˣ (*péñuj*).

They refer to a daughter of any whom they address as tʰáɲàʔpè (*táñahbe*) 'my brother' or tʰáɲàːtʃè (*táñaálle*) 'my sister' with the term tòːʔɬkpʉ̀ (*doohɬwu*) or tʰápʲèʔtʃè (*tábyehlle*) 'my niece' and address her as kpáʔàˣ (*wáhaj*) or tóʔmìˣ (*dóhmij*). Others refer to them as ípʲèːpè (*íbyeébe*) 'his or her nephew' and ípʲèʔtʃè (*íbyehlle*) '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 nàníjò (*naníyo*), nàníʉ̀ (*naníu*) or tʰáːɲáʔnìí (*tááñáhnií*) 'my uncle' and address him as nàːnìˣ (*naánij*), nàːníjòˣ (*naaníyoj*) or nàːníʉ̀ˣ (*naaníuj*). The sister of a parent is referred to as mèʔérò (*mehéro*), mèʔéʉ̀ (*mehéu*) or tʰáìːmʲè (*táiímye*) 'my aunt' and addressed as méʔèˣ (*méhej*), mèʔéròˣ (*mehéroj*) or mèʔéʉ̀ˣ (*mehéuj*). Others refer to them as íɲáʔnìí (*íñáhnií*)

'his or her uncle' and íːmʲɛ̀ɛ́ (íímyeé) 'his or her aunt'. Wives and husbands of father's or mother's brothers or sisters are included. nàːnìˣ (*naánij*) 'uncle' and méʔɛˣ (*méhej*) '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 (*táñaálle*) 'my sister' as átʲʰónùːpɛ̀ (*átyónuúbe*) 'my brother-in-law', and addresses him as átʲʰòˣ (*átyoj*).

A wife refers to her husband's brother or a husband of any whom she calls tʰáɲàːʧɛ̀ (*táñaálle*) 'my sister' also as átʲʰónùːpɛ̀ (*átyónuúbe*) 'my brother-in-law' and addresses him átʲʰòˣ (*átyoj*) as well. Others refer to him as ítʲʰónùːpɛ̀ (*ítyónuúbe*) 'his or her brother-in-law'.

A husband refers to his wife's sister or a wife of any whom he calls tʰáɲàʔpɛ̀ (*táñahbe*) 'my brother' as átʲʰónɯ̀ʧɛ̀ (*átyónulle*), and addresses her púʔhɨˣ (*búhjɨj*).

A wife refers to a sister of his brother or a wife of any whom she calls tʰáɲàʔpɛ̀ (*táñahbe*) 'my brother' also as átʲʰónɯ̀ʧɛ̀ (*átyónulle*) and addresses her as púʔhɨˣ (*búhjɨj*) as well. Others refer to her as ítʲʰónɯ̀ʧɛ̀ (*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 tʰápʲɛ̀ʔʧɛ̀ (*tábyehlle*) 'my niece', and the husband of any addressed as tʰáìáːkʲʰɯ̀kpà (*táiáácyuwa*) 'my granddaughter' are referred to as áːhʲàá (*áájyaá*) 'my son-in-law'. He is addressed by the parents-in-law as ʧíʔìˣ (*llíhij*) 'son'. Others refer to him as ìáhʲàá (*iájyaá*) 'his or her son-in-law'.

A husband's parents refer to their daughter-in-law, the wife of any whom they call tʰápʲɛ̀ːpɛ̀ (*tábyeébe*) 'my nephew' and the wife of any whom they call tʰáìáːʧʰì (*táiááchi*) 'my grandson' as tʰáìáːhà (*táiáája*) 'my daughter-in-law' and address her as kpáʔàˣ (*wáhaj*) 'daughter'. Others refer to her as îáːhà (*íiáája*) '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 ápáːpɛ̀ɛ́ (*ábáábeé*) 'my in-law'

and addresses the father and uncles as nánìˣ (nánij) 'uncle', and the mother and aunts as mɛ́ʔɛ̀ˣ (méhej) 'aunt'. He addresses the grandfather as tʰáʔtìˣ (táhdij) and the grandmother as tʰà:ʧɛ̀ˣ (taállej). Others refer to them as ípá:pɛ̀ɛ́ (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 ápá:pɛ̀ɛ́ (ábáábeé) 'my in-law' and addresses the father and uncles nánìˣn (nánij) 'uncle' and the mother and aunts mɛ́ʔɛ̀ˣ (méhej) 'aunt'. She addresses the grandfather tʰáʔtìˣ (táhdij) and the grandmother tʰà:ʧɛ̀ˣ (taállej). Others refer to them as ípá:pɛ̀ɛ́ (íbáábeé) 'her in-law'.

F.8 Fathers-in-law — mothers-in-law relationship

Parents refer to their child's father-in-law as tʰánìɯ́:pɛ̀ (tániúúbe) 'my child's father-in-law' and address him tʰánìˣ (tánij) and to their child's mother-in-law as tʰánìɯ́:ʧɛ̀ (tániúúlle) 'my child's mother-in-law' and address her tʰánìˣ (tánij) also. These are reciprocal terms used between the husband's and wife's parents. Others refer to them as íɲìɯ́:pɛ̀ (íñiúúbe) 'his or her father-in-law' and íɲìɯ́:ʧɛ̀ (íñiúúlle) 'his or her mother-in-law'.

F.9 Addessing 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: mɯ̀:pìˣ (muúbij)
   female: mɯ̀:ʧɛ̀ˣ (muúllej)
2. member of one's parent's generation
   male: nánìˣ (nánij) 'uncle'
   female: mɛ́ʔɛ̀ˣ (méhej) 'aunt'
3. member of one's grandparent's generation
   male: tʰátìˣ (tádij) 'grandfather'
   female: tʰà:ʧɛ̀ˣ (taállej) 'grandmother'
4. member of one's child's or grandchild's generation
   male: ʧíʔìˣ (llíhij) 'son'
   female: kpáʔɛ̀ˣ (wáhej) 'daughter'

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.

1. Walle Píívyeté Núlledívu 'A woman becomes a toucan' (Mibeco N. *et al.* 1975:92–93).
2. Tsáníhyoke Bɨɨrúmujɨ Tsájtyene 'An aguoti takes a wife' (Mibeco N. *et al.* 1975:38–39).
3. Ávyéjuubéváa Péé Bájú Pañévu 'A chief goes to the jungles'.
4. Píívyéébé 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 Úmɨhe 'They cultivate the field'. This is an imagined drama. Note that the dialog is interrupted only three times by the narrator.
6. Íllu Múúne Méwákímyeí '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)
|| cleft (contrastive focus)
≀ juncture between the modifier and head in a genitive construction
(BE) implicit 'be'
ø$_i$ coindexed null pronoun
Adj adjective
Adv adverb or adverbial clause
Adv$_D$ adverbial clause with a different subject
Adv$_S$ adverbial clause with the same subject
AdvDeg adverb of degree
Aux auxiliary
Aux-s auxiliary verb with a classifier subject
(BE) implicit copula
Cir circumstance or circumstantial adverbial clause,
Cir$_d$ circumstantial adverbial clause with a different subject,
Cir$_s$ circumstantial adverbial clause with a same subject,
Cir$_s^n$ the n-th circumstantial adverbial clause with a same subject
ComplOfKnow complement of the verb "know"
Cond conditional
CoS co-subject
Dem demonstrative
DO direct object
DO$_{recip}$ direct object indicating the recipient of "give"
F feminine
frs frustrative, contraexpectation
Goal NP with "goal" case marking
Goal$_{theme}$ goal-marked noun phrase indicating the thematic argument of "give"
impl implore
Instr NP with "instrument" (oblIn) case marking
Interj interjection
-KI implicit /-ki/ 'purpose'
Link sentence-initial connector, usually an anaphoric pronoun
Loc NP with "location" case marking
Man NP indicating manner
N noun
Neg negative
NP noun phrase
O object of a verb of saying, telling,…
oblIn oblique (case marker) for inanimate noun phrases
PostPos pospositional phrase
PredCmpl predicate complement
ProSent pro-sentence
pur purpose
Pur purpose clause, noun phrase indicating purpose,
Pur$_d$ purpose clause with a different subject,
Pur$_s$ purpose clause with a same subject
Q interrogative pronoun. This may be followed by the function:

QS questioned subject,
QDO questioned direct object,
QGoal questioned goal,
and so forth for QCoS, QInstr, QLoc, QManSou, QPur, QSim, and QTime

$Q_{y/n}$ yes/no question
Quan quantifier
rec recent past
S subject, **$S_{partitive}$** partitive subject
Sim similarity, comparison
Site site of attachment
Sou source
sub subordinator (followed by an auxiliar verb)
Sum list terminator
s-V verb with a pronominal proclitic subject
TempN temporal noun like (boone) 'after'
TempP temporal phrase headed by a TempN
Th theme
Time time
V verb
V-s verb with a classifier subject (cliticized)
Voc vocative

Conventions

X_i, X_j, X_k The subscripted indices indicate coreference, e.g., <**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., **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., **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., **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 Cir_s^1 and Cir_s^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 ɬhtune mé nijtyúhi
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]].

Walle Píívyeté Núlledívu

A Woman Becomes a Toucan

[1]Tsáá-pillé-vá-a bádsɬjca-ja awá-hi.
one-<SgF>-rpt-rem adolescentF-sg diet-<t>

[2]Aa-llé-vá-a pa-íjyu-vá-ré pe-h íjcyá-h
thm-<SgF>-rpt-rem all-day-pl-only go-sub be-<t>

úmɨhé-vú íh maahó-ma. [3]Ih-dyú-vá-hacá-a
field-goal self cassava-pl this-<like>-rpt-realize-rem

[cátúújɨ behjɬbáá-né] i lléhdo-KI tsatyé-h
ñejilla shoot-pl self eat-pur take-sub

íjcya-lle. [4]Aa-né-vá-a tsaa-te néé-hií:
be-<SgF> thm-<ø>-rpt-rem one-<AnPl> say-<t>

"¿Ɬvee-kí-ami aa-lle pa-íjyu-vá-ré
why-pur-wonder that-<SgF> all-day-pl-only

tsatyé-h ijcyá-h íh maaho [úmɨhé
take-sub be-<t> self cassava field

pañé-vu]?" [5]Eh-dú-vá-a i ñéé-ne
inside-goal that-<like>-rpt-rem self say-<event>

úra-avyé-mé tsá-jcooj ɬ díí-lle-ke.
follow-sIn-<AnPl> one-day that-<SgF>-objAn

[6]Aa-mé-vá-a péé-h [díí-llé kemú-ellé-re].
thm-<AnPl>-rpt-rem go-<t> that-<SgF> far-<place>-only

[7]Aa-mé-vá-a ɬɬté-náa [[tee-ne cátuujɨ] i
thm-<AnPl>-rpt-rem look-while that-<ø> *ñejilla* self

tyábá-hcyó-né] lléhdo-llé-ré péé-hií.
pull.up-mTr-<event> eat-<SgF>-only go-<t>

[1]A young girl was dieting. [2]She went every day to the field with her cassava. [3]Thus, she always takes *ñejilla* palm shoots to eat (with meat). [4]Then some said, "Why does she always take cassava with her to the field?" [5]After saying that they followed her one day. [6]They went after her at a distance. [7]While they were looking she pulled up some *ñejilla* and went along eating it.

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[1]S | S V [2]S Time V Aux Goal DO [3]<Man_i> Cir_s DO Pur_s V Aux-s (where Cir_s = [$ø_i$ V-s] and Pur_s = [s-V]). The DO could be within the Purpose clause [4]Link S V "QPur S Time V Aux DO Goal" [5]<O_i> Cir_s V-s Time DO (where Cir_s = [$ø_i$ V-s]) [6]S V Loc [7]<S_i> $Time_d$ Cir_s V V (where $Time_d$ = [$ø_i$ V]); Cir_s = [DO s-V] The final verbs are conjoined "go and eat"

[8]Then she seeing them, put one between her lips and flew up high becoming a toucan. [9]Then they came and told, "She always takes *ñejilla* to eat together with her cassava. [10]After seeing us she flew up and became a toucan." [11]That is how she became a toucan.

[8]Aa-né-vá-a [dii-tyé-ké i
thm-<ø>-rpt-rem that-<AnPl>-objAn self

ájtyúmɨ-ne] [tsa-ne ɨ dɨbé-évé-ne]
see-<event> one-<ø> self put.between.lips-sIn-<event>

wáámène-lle cááme-vú-juco, [tsúúca núlle-dí-vú
fly-<SgF> high-goal-focus already toucan-anim-goal

pí-ívye-té-lle-ré-juco]. [9]Aa-né-vá-a
body-sIn-go.do-<SgF>-only-focus thm-<ø>-rpt-rem

dii-tye úúballé-vá-hi: "[Cátuujɨ-haca i
that-<AnPl> tell-come.do-<t> *ñejilla*-realize self

lléhdo-KI] tsatyé-h íjcya-lle íh maáho".
eat-pur carry-sub be-<SgF> self cassava

[10]Aa-ne [múúha-kye i ájtyúmɨ-ne]
thm-<ø> we.ex-objAn self see-<event>

wáámène-lle [tsúúca núlle-dí-vu-ré-juco
fly-<SgF> already toucan-anim-goal-only-focus

íjcya-lle]. [11]Eh-dú-vá-a pí-ívye-té-llé
be-<SgF> that-<like>-rpt-rem body-sIn-go.do-<SgF>

núlle-dí-vu.
toucan-anim-goal

---

[8]Link Cir_s Cir_s V Goal $Result_s$ (where Cir_s = [DO s-V]; Cir_s = [DO s-V]; $Result_s$ = [Adv Goal V-s]) [9]Link S V "Pur_s V Aux-s DO" (where Pur_s = [DO s-V]) [10]Link Cir_s V-s $Result_s$ (where Cir_s = [DO s-V]; $Result_s$ = [Adv V-s]) [11]Man V-s Goal.

Tsáníhyoke Bɨɨrúmujɨ Tsájtyene

An Agouti Takes a Wife

[1]Tsaa-pí-vá-a péé-h méwá-nííhyo-ma
one-<SgM>-rpt-rem go-<t> wife-<childbearer>-with

[bájú pañé-vu]. [2]Aa-mé-vá-a i
jungle inside-goal thm-<AnPl>-rpt-rem self

úúje-té-dú meenú-h í-ñuujú-wa.
arrive-go.do-<like> make-<t> their-woven-<slab>

[3]Áá-wa-vú-vá-a pícyo-íñu-ube
thm-<slab>-goal-rpt-rem put-do.go-<SgM>

[té-niihyo méwá-nííhyo]-ke [i
that-<childbearer> wife-<childbearer>-objAn self

úúje-té-KI i dyáhpé-i-tsíi]. [4][Áá-né
arrive-go.do-pur self trap-fut-<place> thm-<ø>

hallú]-ri-vá-a [me-hdu mɨ́a-múnaá-dú
top-oblIn-rpt-rem SAP-<like> Bora-people-<like>

i ípíyé-évé-ne] Bɨɨrúmu-jɨ tsajtyé-h
self become-sIn-<event> agouti-sg take-<t>

té-nííhyo-ke. [5][Áá-né booné]-vá-a
that-<childbearer>-objAn thm-<ø> after-rpt-rem

wajtsɨ́-ɨ́bé íévé-tsih-vú-ré-juco.
arrive.here-<SgM> empty-<place>-goal-only-focus

[6]Tsáhá-jucó-vá-a té-niihyo íjcya-tú-ne.
no-focus-rpt-rem that-<childbearer> be-neg-<n>

[7]Áá-né-lliihyé-vá-a [di-bye kééva-ró]-né
thm-<ø>-motive-rpt-rem that-<SgM> call-frs-<ø>

tsá(h) té-nihyo áñújcu-tú-ne.
no that-<childbearer> answer-neg-<n>

[1]A man went with his wife into the jungle. [2]Upon arrival they made a little shelter. [3]He put his wife into the shelter and left to go to where he would set his trap. [4]Meanwhile, becoming like a human being, an agouti took the wife. [5]Then he (the man) arrived to an empty place. [6]That wife was not there. [7]For that reason his wife did not answer his calling.

---

[1]S V CoS Goal [2]S Cir_s V DO (where Cir_s = [s-V] [3]Goal V-s DO | DO Pur_s (where Pur_s = [s-V Goal*] and Goal* = [[s-V]-head]) [4]Time Cir_s S V DO (where Cir_s = [Sim | Sim s-V]) [5]TempP V-s Goal [6]Neg || S V [7]Reason DO Neg S V; DO = [[S V]-head]

[8]Then he, the agouti, caused her to arrive to a festival, to where there was an animal festival. [9a]That wife kept looking at all the different animals that were at the festival. [9b]A deer was there. [9c]A tapir was there. [9d]A snake was there. [9e]They were all animals, that many.

[10]Then the wife looked at everything that was in the big house. [11]However, that place was empty. [12]And while they were dancing she

[8]A*a*-né-vá-*a* [dii-bye b*ɨɨ*rúmu-j*ɨ*]
thm-<ø>-rpt-rem that-<SgM> agouti-sg

úúje-té-tsó-h wa*ñ*éhj*ɨ*-vu, | [[iyá-mé
arrive-go.do-caus-<t> festival-goal animal-<AnPl>

wa*ñ*éhj*ɨ*] íjcy*a*-né]-vu. [9a]Á-niihyó-vá-*a*
festival be-<ø>-goal thm-<childbearer>-rpt-rem

*ɨɨ*te-h íjcyá-h [[[pá-ábé *ɨ*hdé-e-jpi]
look-sub be-<t> all-<SgM> before-per-<SgM>

iyá-ábé] úúbámye-nú-ne]. [9b]Níívuwá-vá-*a*
animal-<SgM> invited.ones-do-<ø> deer-rpt-rem

uubámye-nú-hi. [9c]ócáji-vá-*a* uubámye-nú-hi.
invited.ones-do-<t> tapir-rpt-rem invited.ones-do-<t>

[9d]*ɨɨ*ñimyé-vá-*a* uubámye-nú-hi. [9e][pá-me-ere
snake-rpt-rem invited.ones-do-<t> all-<AnPl>-only

mú-hdu-mé iyá-mé] íjcy*a*-me.
WH-<like>-<AnPl> animal-<AnPl> be-<AnPl>

[10]A*a*-né-vá-*a* *ɨɨ*te-níihyó
thm-<ø>-rpt-rem look-<childbearer>

[[[tsá-já-hcóbá pa*ñ*e] i íjcy*a*]-ne.
one-<shelter>-aug inside self be]-<ø>

[11]Á-ró-n*á*acá-vá-*a* [ih-dyu pevé-tsíí-ye-ro]
thm-frs-while-rpt-rem that-<like> clear-<place>-only-frs

té-tsii. [12]A*a*-né-vá-*a* [di-tye
that-<place> thm-<ø>-rpt-rem that-<AnPl>

kíjcyó-n*á*a] tsá(h) di-lle ímílle-tú
dance-while no that-<SgF> want-neg

---

[8]Link S | S V Goal | Goal* (where Goal* = [S V]) [9a]S V Aux DO (where DO = [[[Quan Adj] N] V]) [9b]S V [9c]S V [9d]S V [9e]S (BE) (where S = [S PredCmpl]; S = [Quan N]; Note: *íjcya-me* is nominalized.)

[10]Link V-s DO (where DO = [[Loc s-V]-head]); Loc = [N loc] [11]Time PredCmpl S (where PredCmpl = [Sim N]). The link signals background? [12]Time Cir$_d$ Neg S V DO (where DO = [s-V]-s) [13]Man

[i wáhtsɨ]-ne. [13]Í-llu-ré-vá-a
self dance-<ø> this-<like>-only-rpt-rem

cúwa-lle. [14]Aa-né-vá-a me tsɨ́tsɨ-ɨvé-dú
sleep-<SgF> thm-<ø>-rpt-rem SAP white-go.do-<like>

ajkyé-va-nííhyó [[bájú-j pɨɨne] i
awake-come.do-<childbearer> jungle-x middle self

íjcya]-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>

did not want to dance. [13]Thus she just slept. [14]Then, waking at dawn she was in the middle of the jungle. [15]No one was there.

V [14]Link Time V-s Result$_s$ (where Time = [s-V]-sim; Result$_s$ = [Loc s-V]-<ø>) [15]Neg || S V.

Ávyéjuubévá*a* Péé Bájú Pañévu

A Chief Goes to the Jungle

[1]A chief went into the jungle to hunt for animals. [2]His son also went. [3]The chief got his gun. [4]He gave his gun to his son. [5]His son took the gun. [6]Also he took a lot of food.

[1]Ávyéju-ubé-vá-*a* péé-h [bájú pañé-vú]
reign-<SgM>-rpt-rem go-<t> jungle inside-goal

[iyá-me-ke i ñéhco-ki]. [2]Í-lli-vá-*a*
animal-<AnPl>-objAn self hunt-pur self-son-rpt-rem

péé-h té-hdu-re. [3]Ávyéju-ubé-vá-*a* ujcú-h
go-<t> that-<like>-only reign-<SgM>-rpt-rem get-<t>

í añú-ju. [4]Í-llí-kye-vá-*a* ájcu-ube
self shoot-<channel> self-son-objAn-rpt-rem give-<SgM>

í añú-ju-vu. [5]A*a*-né-vá-*a* í-lli
self shoot-<channel>-goal thm-<ø>-rpt-rem self-son

tsajtyé-h añú-ju. [6]Mítya-né-vá-*a* majcho
take-<t> shoot-<channel> much-<ø>-rpt-rem food

tsajtyé-ébé té-hdu-re.
take-<SgM> that-<like>-only

[7]The chief wants to get cloth. [8]Therefore he went to the jungle to get skins. [9]They also took a sleeping net into the jun-

[7]Ávyéju-ubé-vá-*a* imíllé-h [wájyamu
reign-<SgM>-rpt-rem want-<t> cloth

i újcu]-ne. [8]Áá-né-lliihyé-vá-*a*
self get-<ø> thm-<ø>-motive-rpt-rem

pee-be bájú pañé-vú mɨɨ́he-ne i
go-<SgM> jungle inside-goal skin-pl self

újcu-ki. [9]Té-hdu-ré-vá-*a* cuwá-já
get-pur that-<like>-only-rpt-rem sleep-<shelter>

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[1]S V Goal Pur$_s$ (where Pur$_s$ = [DO s-V]) [2]S V Adv [3]S V DO [4]DO$_{recip}$ V Goal$_{theme}$ [5]Link S V DO [6]<DO$_i$> [ø$_i$|DO] V-s Adv (Because of clitics we cannot regard the first two nouns as NP = [Quant N].)

[7]S V DO (where DO = [DO s-V-<Ø>]) [8]Reason V Goal Pur$_s$ (where Pur$_s$ = [DO s-V]) [9]Link DO V Goal [10]S | S V Loc

tsajtyé-mútsi [bájú pañé-vu].
take-<DuM> jungle inside-goal

[10]Mítya-né-vá-a waa-myu ijcyá-h [bájú pañe].
much-<ø>-rpt-rem mosquito-<AnPl> be-<t> jungle inside

[11]Áá-né-lliihyé-vá-a ávyéju-ube tsajtyé-h cuwá-ja.
thm-<ø>-motive-rpt-rem reign-<SgM> take-<t> sleep-<shelter>

[12]Té-hdu-ré-vá-a cánááma tsajtyé-ébe.
that-<like>-only-rpt-rem salt take-<SgM>

[13]Tsí-hullé-vá-a pee-mútsi [bájú pañé-vu.]
other-<yonder>-rpt-rem go-<DuM> jungle inside-goal

[14]Ávyéju-ubé-vá-a ájtyumɨ́-h tojpá-u-ke.
reign-<SgM>-rpt-rem see-<t> partridge-sg-objAn

[15]i llí-kye-vá-a neé-be: “Ɨ́ɨcúi tojpáu-ke d-ahñu me dóó-kií”.
self son-objAn-rpt-rem say-<SgM> quickly partridge-objAn youImp-shoot SAP eat-pur

[16]Í-lli-vá-a néé-hi: “Juújuj. [17]Ɨ́ɨcúi tsiva añú-ju.”
self-son-rpt-rem said-<t> ok quickly bringImp shoot-<channel>

[18]Áá-né-lliihyé-vá-a ávyéju-ube dsɨɨné-h [í añú-ju élle-vu].
thm-<ø>-motive-rpt-rem reign-<SgM> run-<t> self shoot-<channel> place-goal

[19]Ɨ́ɨcúi-vá-a tsíva-abe í añú-ju [í-llí
quickly-rpt-rem bring-<SgM> self shoot-<channel> self-son

gle. [10]There were many mosquitos in the jungle. [11]Therefore the chief took a sleeping net. [12]Also he took salt.

[13]They went a long way into the jungle. [14]The chief saw a partridge. [15]He said to his son, “Quickly shoot the partridge so we can eat.”

[16]His son said, “OK. [17]Quickly bring the gun.” [18]Therefore the chief ran to where the gun was. [19]He quickly brought

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[11]Reason S V DO [12]Sim DO V (The final tones of *tsajtyé-ébe* do not split because the root's first syllable is a lexically marked low tone.)

[13]Loc V Goal [14]S V DO [15]O V “Adv V Pur_d” (where Pur_d = [s-V])

[16]S V “ProSent” [17]Adv V DO [18]Reason S V Goal [19]Adv V-s DO Goal [20]DO V-s [21]DO Neg S V [22]S V [23]Link DO V-s

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

élle-vu]. [20]Tojpá-u-ké-vá-a néhco-óbe.
place-goal partridge-sg-objAn-rpt-rem hunt-<SgM>

[21]Áá-be-ké-vá-a tsá(h) di-bye
thm-<SgM>-objAn-rpt-rem no that-<SgM>

ájtyúmɨ-tú. [22]Tojpá-u-vá-a úmɨvá-hi.
see-neg partridge-sg-rpt-rem flee-<t>

[23]Á-ró-náacá-vá-a néépicyó-ke ájtyúmɨ-ɨ́be.
thm-frs-while-rpt-rem squirrel-objAn see-<SgM>

[24]Néépicyó-ke-vá-a | [ávyéju-ube áñú-úbe-ke]
squirrel-objAn-rpt-rem reign-<SgM> shoot-<SgM>-objAn

í-lli ujcú-hi. [25]Áá-be-ké-vá-a
self-son get-<t> thm-<SgM>-objAn-rpt-rem

tsajtyé-ébé i dyóó-kií.
take-<SgM> self eat-pur

[26]"Ayúwa majo" ávyéju-ubé-vá-a néé-hi.
ready let's.go reign-<SgM>-rpt-rem say-<t>

[27]Tsí-hullé-u-vá-a | [bájú pañé-vu]
other-<yonder>-goal-rpt-rem jungle inside-goal

pee-mútsi. [28]Té-hullé-vu-vá-a [ávyéjú-úbé
go-<DuM> that-<yonder>-goal-rpt-rem reign-<SgM>

ájchi] núújuwa meenú-hi. [29]Ímíh-ye-vá-a
son shelter made-<t> good-only-rpt-rem

núújuwa méénu-úbe. [30]Té-hdu-ré-vá-a
shelter made-<SgM> that-<like>-only-rpt-rem

wáɨjɨ méénu-úbe. [31]Niityé-wááhyo-vá-a tsá(h)
floor made-<SgM> go.down-<steps>-rpt-rem no

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[24]DO$_i$|DO S V (where second DO = [S ø$_i$ V]) [25]DO V-s Pur$_s$ (where Pur$_s$ = [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

di-bye méénu-tú. [32]Llijyá-cóóh*a*-vá-*a*
that-<SgM> make-neg sweep-<fork>-rpt-rem

méénu-úbe. [33]A*a*-bé-vá-*a* [núújúwá pañe]
made-<SgM> thm-<SgM>-rpt-rem shelter inside

llijyáá-hi. [34][A*a*-né booné]-vá-*a* cuwá-j*a*
sweep-<t> thm-<ø> after-rpt-rem sleep-<shelter>

pícyo-obe [wáɨjɨ hallú-vu]. [35*a*]"Áyu llíhi-j"
put-<SgM> floor top-goal ready papa-voc

nee-bé-vá-*a*. [35*b*]"Tsúúc*a* ó ímivyé-hi. [36]Ovíi
say-<SgM>-rpt-rem already I finish-<t> wait

mé cúw*a*-j."
SAP sleep-voc

[37]Ávyéju-ubé-vá-*a* cóó-v*a*-té-h
reign-<SgM>-rpt-rem firewood-have-go.do-<t>

[cúújuw*a* i myéénu-kií]. [38]Ímíh-ye-vá-*a*
fire self make-pur good-only-rpt-rem

cúújuw*a* méénu-úbe. [39][A*a*-né
fire made-<SgM> thm-<ø>

booné]-vá-*a* nú-jp*a*cyo újcu-úbe.
after-rpt-rem water-<liquid> get-<SgM>

[40]Áá-ne-má-vá-*a* néépicyó-ke tu-ube
thm-<ø>-with-rpt-rem squirrel-objAn cook-<SgM>

cúújúwá hallú-vu. [41]Áá-ne-vá-*a*
fire top-goal thm-<ø>-rpt-rem

cánaamá-nu-úbe. [42]Ímíh-ye-vá-*a* m*a*jcho
salt-do-<SgM> good-only-rpt-rem food

ávyéju-ube túú-hi. [43]Mááho-vá-*a* i
reign-<SgM> cook-<t> cassava-rpt-rem self

broom. [33]He swept the inside of the shelter. [34]After that he put the net on the floor. [35*a*]"Papa," he said. [35*b*]"I have already finished. [36]Wait and we will sleep."

[37]The chief went to get firewood to make a fire. [38]He made a fire well. [39]After that he got water. [40]With that (the water) he cooked the squirrel on top of the fire. [41]Then he salted it. [42]The chief cooked the food superbly. [43]After

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V-s [31]DO Neg S V [32]DO V-s [33]S DO V [34]TempP DO V-s Goal [35*a*]["Adv Voc" V-s [35*b*]"Adv S V. [36]ProSent s-V

[37]S V Pur_s (where Pur_s = [DO s-V]) [38]Adv DO V-s [39]TempP DO V-s [40]Cir DO V-s Goal (Note: Cir with *-ma* 'with'.) [41]Link V-s [42]Adv DO S V [43]$<DO_i>$ $Time_s$ O V-s "Adv V Pur_s" (where $Time_s$ =

getting cassava, he said to his son, "Ready, let's eat."

[44]His son said, "OK." [45]"Give me some cassava so I can eat it."

[45]They ate real well. [46]Then the chief said to his son, "OK, son, that's enough." [47]"Thanks." [48]"Wash the dishes." [49]He said, "OK."

[50]Then he went to the river to wash the dishes. [51]He washed the dishes with the soap he had taken along. [52]Then he took them to the

újcú-ne í-llí-kye ne-ébe: "Áyúwa, májo me
get-<event> self-son-objAn say-<SgM> ready let's SAP
dóó-KI".
eat-pur

[44]"Juúju", í-lli-vá-a néé-hi. [45]"Mááhó-vu
ok self-son-rpt-rem say-<t> cassava-goal
o-ke d-aacu [o májcho-ki]".
I-objAn youImp-give I eat-pur

[45]Ímíh-ye-vá-a májcho-mútsi.
good-only-rpt-rem eat-<DuM>

[46]Aa-né-vá-a ávyéju-ube néé-h
thm-<ø>-rpt-rem reign-<SgM> say-<t>
í-llí-kyeé: "Áyu(h) llíhi-j, éh-du-né-re".
self-son-objAn ok son-voc that-<like>-<ø>-only

[47]"Te-hdú-juco". [48]"Níjtyu bohtá-mu".
that-<like>-focus washImp dish-pl

[49]"Juúju", ne-ebé-vá-a.
ok say-<SgM>-rpt-rem

[50]Aa-né-vá-a pe-ebe téé-hi-vu
thm-<ø>-rpt-rem go-<SgM> river-<stick>-goal
[bohtá-mu i ñíjtyu-ki]. [51]Nijtyú-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

[ø$_i$ s-V])

[44]"ProSent" S V [45]Goal$_{theme,i}$ DO$_{recip}$ s-V Pur$_d$ (where Pur$_d$ = [S ø$_i$ V]) [45]Adv V-s [46]Link S V O "ProSent Voc PredCmpl (BE)" [47]PredCmpl (BE) [48]s-V DO [49]"ProSent" V-s

[50]Link V-s Goal Pur$_s$ (where Pur$_s$ = [DO s-V]) [51]<DO$_i$> Instr$_s$ V DO; Instr$_s$ = [ø$_i$ s-V]-head [52]Link V-s Goal

[52]Aa-né-vá-a tsajtyé-ébé núújúwa-vu.
thm-<ø>-rpt-rem take-<SgM> shelter-goal

[52′]Ávyéju-ubé-vá-a néé-h í-llí-kye:
reign-<SgM>-rpt-rem say-<t> self-son-objAn

"Tsiva tá-chiiyóro o llíjchu-ki".
bringImp my-flute I blow-pur

[53]"Juúju", ne-ebé-vá-a í-llií. [54]"¿A
ok say-<SgM>-rpt-rem self-son y/n

ú-pé ú tsivá-h dí-chiiyóro? [55]¿Kiá(h)
you-rem you bring-<t> your-flute where

teé-ne? [56]Tsá(h) o ájtyúmɨ-tú-ne."
that-<ø> no I see-neg-<n>

[57][Ávyéjú-úbé ajchí]-vá-a nehcó-h chiiyóro.
reign-<SgM> son-rpt-rem hunt-<t> flute

[58]Aa-bé-vá-a [[núújúwá pañé-tú] i
thm-<SgM>-rpt-rem shelter inside-sou self

ájtyúmɨ]-né-vú ajcú-h cáání-kye [di-bye i
see-<ø>-goal give-<t> father-objAn that-<SgM> self

llíjchu-ki].
blow-pur

[59][Ávyéjú-úbé ajchí]-vá-a té-hdu-re
reign-<SgM> son-rpt-rem that-<like>-only

piivyété-h [chiiyóro i llíjchu]-ne.
able-<t> flute self blow-<ø>

[60]Ávyéju-ubé-vá-a ihjyúvá-h í-llí-maá.
reign-<SgM>-rpt-rem talk-<t> self-son-with

shelter.

[52′]The chief said to his son, "Bring my flute so I can play it."
[53]"OK," said his son. [54]"Did you bring your flute? [55]Where is it? [56]I do not see it."
[57]The chief's son hunted for the flute. [58]He found it in the shelter and gave it to his father to play.

[59]The chief's son also could play the flute.

[60]The chief talked with his son. [61]He said to him, "To-

[52′]S V O "s-V DO$ø_i$ Pur$_d$" (where Pur$_d$ = [S $ø_i$ V])
[53]"ProSent" V-s | S [54]"Q$_{y/n}$ S | S V DO" [55]QLoc PredCmpl (BE) [56]Neg S V [57]S V DO [58]S$_i$ Cir$_s$ Goal$_{theme,k}$ $ø_i$ V DO$_{recip}$ Pur$_d$ (where Goal = [Loc $ø_k$ s-V] and Pur$_d$ = [S $ø_k$ s-V])
[59]S Sim V DO (where DO = [DO s-V])
[60]S V CoS [61]V-s O "Time s-V DO" [62]S V DO (where DO = [DO

morrow we will go hunt animals. [62]I want to shoot peccaries. [63]I want to shoot peccaries also. [64]Son, there are many mosquitos. [65]Hurry, let's go to sleep." [66]"OK," said his son.

[67]The chief woke up. [68]Then he said, "Son let's eat. [69]Already the sun is shining. [70]I want that we go quickly."

[71]Eating quickly they went to hunt for animals [72]They went far. [73]Already the chief saw

[61]Ne-ebé-vá-a dí-íbye-ke: "Péjco-re mé
say-<SgM>-rpt-rem that-<SgM>-objAn night-only SAP

néhcó-te-é-h iyá-me-ke. [62]Ó imíllé-h
hunt-go.do-fut-<t> animal-<AnPl>-objAn I want-<t>

[mééní-mu-ke o áñu]-ne. [63]Mɨne-jté-ké
peccary-pl-objAn I shoot-<ø> peccary-<AnPl>-objAn

té-hdu-re o imíllé-h [o áñu]-ne. [64]Áyu(h)
that-<like>-only I want-<t> I shoot-<ø> ready

llíhi-j, mítya-ne waá-myu. [65]Majó-jú-j me
son-voc much-<ø> mosquito-pl let's-quick-voc SAP

cúwa-ki-j." [66]"Juúju", í-lli-vá-a néé-hi.
sleep-pur-voc ok self-son-rpt-rem say-<t>

[67]Ávyéju-ubé-vá-a ajkyé-hi.
reign-<SgM>-rpt-rem wake.up-<t>

[68]Aa-né-vá-a ne-ébe: "Llíhi-j, májo me
thm-<ø>-rpt-rem say-<SgM> son-voc let's SAP

májcho-ki-j. [69]Tsúúca nuhba ajchú-hi. [70]Ɨɨcúi
eat-pur-voc already sun shine-<t> quickly

ó imíllé-h [me péé]-neé."
I want-<t> SAP go-<ø>

[71][Ɨɨcúi-vá-a i májchó-ne]
quickly-rpt-rem self eat-<event>

pee-mútsí [iyá-me-ke i ñéhco-ki].
go-<DuM> animal-<AnPl>-objAn self hunt-pur

[72]Tsí-hullé-u-vá-a pee-mútsi.
other-<yonder>-goal-rpt-rem go-<DuM>

[73]Tsúúcajá-vá-a ávyéju-ube ájtyumɨ-h
already-rpt-rem reign-<SgM> see-<t>

S V]) [63]<DO> Sim S V DO (where DO = [S x V]). [64]ProSent Voc S (BE) (where S = [N | N]) [65]V Pur_s [66]"ProSent" S V

[67]S V [68]Link V-s "Voc V Pur_s" (where Pur_s = [s-V]) [69]Adv S V [70]Adv S V DO (where DO = [s-V])

[71]Cir_s V Pur_s (where Cir_s = [Adv s-V] and Pur_s = [DO s-V])

mɨ́ne-jté-ke. [74][Áá-me élle-vú-vá-a]
peccary-<AnPl>-objAn thm-<AnPl> place-goal-rpt-rem

some peccaries. [74]He ran to them.

dsɨ́ɨ́ne-ébe. [75]Í-lli-vá-a dsɨɨné-h
run-<SgM> self-son-rpt-rem run-<t>

[75]His son ran also.

té-hdu-re. [76]Mítyá-me-ké-vá-a
that-<like>-only much-<AnPl>-objAn-rpt-rem

[76]They shot many.

áñu-mútsi. [77]Áá-me-ké-vá-a
shoot-<DuM> thm-<AnPl>-objAn-rpt-rem

[77]They took them to the shelter.

tsájtye-mútsi núújúwa-vu. [78]Ávyéju-ubé-vá-a
take-<DuM> shelter-goal reign-<SgM>-rpt-rem

[78]The chief threw the bones into the river.

waagóó-h té-bajcú-jɨ́ [téé-hí pañé-vu].
throw-<t> that-<bone>-pl river-<stick> inside-goal

[79]Then he salted the meat.

[79]Áá-ne-má-vá-a cánaamá-nu-ube téé-heecó-jɨ.
thm-<ø>-with-rpt-rem salt-do-<SgM> that-<meat>-pl

[80]His son stretched out the skins.

[80]Í-lli-vá-a cátóro-hcó-h té-mɨɨhé-jɨ.
self-son-rpt-rem stretch-mTr-<t> that-<skin>-pl

[81]The chief roasted the meat.

[81]Ávyéju-ubé-vá-a ɨ́tojtsó-h téé-heecó-jɨ.
reign-<SgM>-rpt-rem roast-<t> that-<meat>-pl

[82]The skins he dried (by placing them) in the sun.

[82]Mɨ́ɨ́he-né-vá-a dárɨ́-jtso-obe [núhba
skin-pl-rpt-rem dry-caus-<SgM> sun

ájchu-vu].
shine-goal

[83]“Cuuvéh-ré-juco teé-ne”, ne-ebé-vá-peé.
dark-only-focus that-<ø> say-<SgM>-rpt-rem

[83]“It's getting dark” he said,

“Májo í-llu-ré-juco me májcho-KI o
let's this-<like>-only-focus SAP eat-pur I

cúwa-ki.”
sleep-pur

“Let's eat so I can sleep.”

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[72]Goal V-s [73]Adv S V DO [74]Goal V-s [75]S V Sim [76]DO V-s [77]DO V-s Goal [78]S V DO Goal [79]Cir V DO (Cir with *-ma* ‘with’ [80]S V DO [81]S V DO [82]DO 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])

[84]Thus it was that after eating they went to sleep.

[85]At night the chief heard an animal come to the shelter. [86]For that reason he looked and saw a big jaguar coming. [87]He was always eating peccaries. [88]Quickly the chief got his gun. [89]With it, he shot the jaguar from inside the sleeping net. [90]The chief's son heard him shoot the jaguar. [91]Therefore getting up he quickly went to see the jaguar. [92]The chief threw the

[84]A-hdú-jucó-vá-a i májchó-ne
thm-<like>-focus-rpt-rem self eat-<event>

di-tyétsí í-llu-ré-juco cúwa-ne.
that-<DuM> this-<like>-only-focus sleep-<Ø>

[85]Pejcó-vá-a ávyéju-ube lleebó-h [iyá-ábé
night-rpt-rem reign-<SgM> hear-<t> animal-<SgM>

tsáá-ne núújúwa-vu]. [86]Áá-né-lliihyé-vá-a
come-<ø> shelter-goal thm-<ø>-motive-rpt-rem

ɨɨte-ebe ájtyumɨ-h [oohí-íbyé-coba tsáá]-neé.
look-<SgM> see-<t> jaguar-<SgM>-aug come-<ø>

[87]Mɨne-jté-ke-vá-a do-h íjcya-ábe.
peccary-<AnPl>-objAn-rpt-rem eat-sub be-<SgM>

[88]Ɨ́ɨcúi-vá-a ávyéju-ube ujcú-h í añú-ju.
quickly-rpt-rem reign-<SgM> get-<t> self shoot-<channel>

[89]Áá-ne-má-vá-a oohí-íbye-ke áñu-ube
thm-<ø>-with-rpt-rem jaguar-<SgM>-objAn shoot-<SgM>

[cuwá-já pañé-tu]. [90][Ávyéjú-úbé
sleep-<shelter> inside-sou reign-<SgM>

ajchí]-vá-a lleebó-h [oohí-íbye-ke
son-rpt-rem hear-<t> jaguar-<SgM>-objAn

dii-bye áñu-]ne. [91]Áá-né-lliihyé-vá-a
that-<SgM> shoot-<ø> thm-<ø>-motive-rpt-rem

i ájkyé-ne ɨɨcúi pe-ebe ɨ ɨɨte-KI
self get.up-<event> quickly go-<SgM> self look-pur

oohí-íbye-ke. [92][Oohí-íbye héécо]-vá-a
jaguar-<SgM>-objAn jaguar-<SgM> meat-rpt-rem

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[84]Sim || Cir$_s$ S V (where PredCmpl = [Sim V] with a nominalized verb)

[85]Time S V DO (where DO = [S V Goal]) [86]Reason S V DO (where S is a nominalized verb; DO = [S V]) [87]DO V Aux-s [88]Adv S V DO [89]Cir DO V Source (Note: *-ma* 'with' for circumstance.) [90]S V DO (where DO = [DO S V]) [91]Reason Cir$_s$ Adv V-s Pur (where Cir$_s$

ávyéju-ube waagóó-h [téé-hí pañé-vu].
reign-<SgM> throw-<t> river-<stick> inside-goal

[93]Áá-ne-má-vá-a té-mɨɨhe pícyo-obe [cújúwá
thm-<ø>-with-rpt-rem that-<skin> put-<SgM> fire

hallú-vu]. [94]Aa-né-vá-a ne-ébe: "Áyu(h),
top-goal thm-<ø>-rpt-rem say-<SgM> ready

tsúúca mítya-ne mé hmɨɨhé-ne. [95]Májo
already much-<ø> SAP skin-pl let's.go

ááhɨ-vú-ré-juco."
home-goal-only-focus

[96][Áá-né booné]-vá-a ávyéju-ube
thm-<ø> after-rpt-rem reign-<SgM>

tsajtyé-h mɨɨhe-ne. [97]Í-lli-vá-a tsajtyé-h
take-<t> skin-pl self-son-rpt-rem took-<t>

téé-heecó-jɨ. [98]Juuvá-yi-vá-a ávyéju-ube
that-<meat>-pl trail-oblIn-rpt-rem reign-<SgM>

[mééni-kye i ájtyúmɨ]-ɨbe-ke añú-hi.
collared.peccary-objAn self see-<SgM>-objAn shoot-<t>

[99][Cuuvé pañé]-vá-a wajtsɨ-mútsí ih
dark inside-rpt-rem arrive.here-<DuM> self

jyá-vu. [100][Hééco-nee, mɨɨhe-nee,
house-goal meat-pl skin-pl

éh-dú-ne-má]-vá-a wajtsɨ-mútsi ih
that-<like>-<ø>-with-rpt-rem arrive.here-<DuM> self

jyá-vu.
house-goal

jaguar meat into the river. [93]In that circumstance, he put the skin on top of the fire. [94]Then he said, "Already we have lots of skins. [95]Let's go home."

[96]After that the chief took the skins. [97]His son took the meat. [98]The chief shot a collared peccary he saw on the trail. [99]When it was dark they arrived to their house. [100]They arrived to their house with meat and skins and such.

= [s-V]; Pur = [V DO]) [92]DO S V Goal [93]Cir DO V-s Goal [94]Link V-s "ProSent Adv S | S (BE)" [95]V Goal

[96]TempP S V DO [97]S V DO [98]<Loc$_i$> S DO V; DO = [[ø$_i$ DO$_k$ V]-head$_k$] [99]Time V Goal [100]CoS V-s Goal; where CoS = [[N N Sum]-case-clitics]; because CoS is oblique, there must be another subject

[101]"We are coming now," the chief said. [102]We have brought a lot of meat to eat. [103]Also we brought a lot of skins so we can get cloth."

[104]The chief took the skins to town. [105]With them, he got cloth. [106]Those pieces of cloth he took to his house. [107]Then he said, "Daughter, I brought it so you can sew my clothes. [108]I also brought your cloth for you."

[101]"Muhtsi me tsá-jucóó-hi" nee-bé-vá-a
we.DuM SAP come-now-<t> say-<SgM>-rpt-rem

ávyéju-úbe. [102]"[Mítya-ne hééco-ne] muhtsi mé
reign-<SgM> much-<ø> meat-pl we.DuM SAP

tsivá-h me dóó-kií. [103]Té-hdu-re [mítya-ne
bring-<t> SAP eat-pur that-<like>-only much-<ø>

mɨ́ɨ́he-ne] muhtsi mé tsivá-h wájyamu me
skin-pl we.DuM SAP bring-<t> cloth SAP

újcu-ki."
get-pur

[104]Mɨ́ɨ́he-né-vá-a ávyéju-ube tsajtyé-h
skin-pl-rpt-rem reign-<SgM> take-<t>

cóómí-vuú. [105]Áá-ne-má-vá-a wájyamu
town-goal thm-<ø>-with-rpt-rem cloth

újcu-úbe. [106]Aa-já-vá-a tsajtyé-ébé
get-<SgM> thm-<shelter>-rpt-rem take-<SgM>

ih jyá-vu. [107]Aa-né-vá-a neé-be:
self house-goal thm-<ø>-rpt-rem say-<SgM>

"Wáha-j, ó tsivá-h tá-wajyámú u dsɨ́jco-ki.
daughter-voc I bring-<t> my-clothes you sew-pur

[108]Té-hdu-re úú-ma dí-wajyámú ó tsivá-hi."
that-<like>-only you-with your-cloth I bring-<t>

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[101]"S V" V-s | S [102]DO S s-V Pur_d (where Pur_d = [s-V]) [103]Sim DO S s-V Pur_d (where Pur_d = [DO s-V])

[104]DO S V Goal [105]Cir DO V-s (Note: *-ma* 'with' for "by that circumstance.") [106]DO V-s Goal [107]Link V-s "Voc S V Pur_d (where Pur = [DO S V]) [108]Sim Benefactee DO S V (Note: *-ma* 'with' for benefactee)

Píívyéébé Ajyúwá Uubálle

Story of the Creator's Daughter

[1]Pí-ívyé-ébe-vá-a wáñehjɨ-nú-i-yá-h
body-sIn-<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-lle-ma di-tye wáñehjɨ-nú-í-yó-lle-ke
that-<SgF>-with that-<AnPl> festival-do-fut-frs-<SgF>-objAn

[dii-bye í ñah-bé-ré] ééva-tsó-hi.
that-<SgM> self sibling-<SgM>-only pregnant-caus-<t>

[3]Aa-né-vá-a tsá(h) cááni-mu wáájácu-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-sIn-<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 cáání-mutsi
thm-<ø>-sou-rpt-rem already father-<DuM>

waajácú-jucóó-hi.
know-now-<t>

[6]Aa-né-vá-a i wáájacú-júcóó-ne íjcya-abe
thm-<ø>-rpt-rem self know-now-<event> be-<SgM>

cááni néé-hií: “Cána wa(h) o-ke níípájɨ-ke
father say-<t> please daughter I-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-

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[1]S V DO [2]Link DO S V; DO = [[Benefactee$_i$ S V]-head$_i$] [3]Time/DO Neg S V [4]Time S About V Aux (where S = [[Dem N] N] and About bears *-ri* ‘oblIn’) [5]About Adv S V (where About = Source) [6]Link S*|S V “X Voc DO DO s-V” (where S* = [Cir$_s$ V] or it has

goe on me.” [7]Therefore she came covering her breasts with her hands. [8]She said, “Where on you is it?” [9]Therefore he said, “Here on my heel.” [10]Thus now in order to inspect him she dropped her hands which covered her breasts. [11]Then he saw that the nipples of her breasts were dark. [12]With that he said, “Oh! [13]Not having a husband, where did you get your child? [14]Tell me. [15]Which one has been with you?” [16a]Therefore

d-uhjé-va-j”. [7]Áá-né-lliihyé-vá-a
youImp-see-come.do-voc thm-<ø>-motive-rpt-rem

tsaa-lle [í í mujpáñéé-cú hyójtsɨ-vu
come-<SgF> self self breast-du hand-goal

i wátá-jcó-ne-ma]. [8]Aa-llé-vá-a
self cover-mTr-<event>-with thm-<SgF>-rpt-rem

néé-hií: “¿Mú-tsih-dyú Lli(h) u-ke dií-bye?”
say-<t> WH-<place>-sou father you-objAn that-<SgM>

[9]Áá-né-lliihyé-vá-a ne-ébe: “[Í-chih-dyu
thm-<ø>-motive-rpt-rem say-<SgM> this-<place>-sou

tá booráyu-tu”. [10]A-hdú-jucó-vá-a
my heel-sou thm-<like>-focus-rpt-rem

[[díí-bye-ke i úvanú]-KI tee-ne [í
that-<SgM>-objAn self consider-pur that-<ø> self

mujpáñéé-cú í hyójtsɨ-vu i wátá-jco-ró]-né
breast-du self hand-goal self cover-mTr-frs-<ø>

di-lle ácádsɨ-jcaáyó-ne. [11]Áá-ne-tú-vá-a
that-<SgF> drop-sTr-<Ø> thm-<ø>-sou-rpt-rem

tsúúca ájtyúmɨ-ɨbe [díí-llé mujpáñéé-cú nɨ́jcau
already see-<SgM> that-<SgF> breasts-du nipple

cúvéh-ré-juco néé]-neé. [12]Áá-ne-má-vá-a
dark-only-focus say-<ø> thm-<ø>-with-rpt-rem

ne-ébe: “¡Új! [13]Tájɨ-vá-lle-jɨ́ɨ́ ¿kiá-tú
say-<SgM> oh husband-have-<SgF>-deny where-sou

tsɨ́ɨ́méne-ke ú ujcú-hi? [14]O-ke d-uubálle.
child-objAn you get-<t> I-objAn youImp-tell

[15]¿Caa-byé úú-ma ícya-h íjcyá-hi?”
which-<SgM> you-with be-sub be-<t>

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a compound tense (past anterior); [DO DO] is not appositive but conjoined). [7]Reason V-s Cir_s (where Cir_s = [DO Th V] w/-ma) [8]S V “Loc Voc DO S” (where Loc is ablative (source) because it is the “site of attachment.” Note further that this sentence has an implicit verb “burrow in.”) [9]Reason V-s “Loc | Loc” (where Loc = Source, perhaps static theme) [10]Sim || Pur_s DO | DO* S V; Pur_s = [DO V]; DO* = [[DO Th V]-head [11]Link Adv V-s DO (where DO = [S PredCmpl

[16a]Áá-né-lliihyé-vá-a neé-lle: "Maáhuúj, tsá(h)
thm-<ø>-motive-rpt-rem say-<SgM> unknown no

o wáájácu-tú-ne [16b]Pejco ih-dyu tsa-h
I know-neg-<n> night this-<like> come-sub

íjcya-ábe". [17]Áá-né-lliihyé-vá-a ne-ébe:
be-<SgM> thm-<ø>-motive-rpt-rem say-<SgM>

"Ané(h), [[cáátu d-éhní-ñe] [di-bye
so genipap youImp-soak-<event> that-<SgM>

di-élle-vu tsáá]-cooca d-ékééve-co í
your-place-goal come-when youImp-grab-implore self

úmɨ-co-tu me wáájácu-KI [ca-abyé
face-<forehead>-sou SAP know-pur which-<SgM>

íjcya]-ne". [18]A-hdú-jucó-vá-a [[di-lle
be-<ø> thm-<like>-focus-rpt-rem that-<SgF>

cáátu i ééní-ñe] ijcyá-náa] di-bye
genipap self soak-<event> be-while that-<SgM>

tsáá-ne pejco. [19][Aa-bé-vá-a
come-<Ø> night thm-<SgM>-rpt-rem

díí-lle-dí-vú wájtsɨ-ɨbe]-ke
that-<SgF>-anim-goal arrive.here-<SgM>-objAn

téé-ne-tu i dyóma-úcunú-ne éké-éve-lle.
that-<ø>-sou self touch-sSt-<event> grab-sIn-<SgF>

[20]Áá-né-tú-jucó-vá-a di-bye pé-jucóó-né
thm-<ø>-sou-focus-rpt-rem that-<SgM> go-now-<Ø>

[ɨ mɨjcó-hó pañé-vu]. [21]Aa-bé-vá-a
self corral-<room> inside-goal thm-<SgM>-rpt-rem

cúúvé-ne-tú-ré i ájkyé-ne mɨɨcúmɨ-ri
dark-<ø>-sou-only self awake-<event> mirror-oblIn

she said, "Unknown, I do not know. [16b]He comes at night." [17]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." [18]Thus while she was making the dye from genipap, he came at night. [19]She grabbed the one who arrived to her, having been touching the dye. [20]After that he went to his room. [21]Early in the morning having awakened he look at himself in the mir-

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V]) [12]Cir V-s "X.. [13]V-s. QLoc DO S V [14]O s-V [15]QS CoS V Aux [16a]Reason V-s "Interj Neg S V [16b]Reason V-s "Interj Neg S V. Time Man V Aux-s" [17]Reason V-s "Interj Cir_d Site V Pur (where Cir_d = [[DO s-V] S Goal V]; Site = Source; Pur_d = [s-V [S V]] ComplOfKnow) [18]Sim || Cir_d S V Time (where Cir_d = [[S DO s-V] V]) [19]<S_i> DO Adv_s V-s; DO = [$_i$ Goal V-s]; Adv_s = [Source s-V] [20]Source || S V Goal [21]S Adv_s Instr V DO (where Adv_s = [Time s-V] and DO = [S

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

ɨ́ɨté-meí-h [cúúvé-coba tee-ne cáátu bájtu]-ne.
look-r/p-<t> dark-aug that-<ø> genipap darken-<ø>

[22]Áá-né-lliihyé-vá-a di-bye páácyú-meí-yó-né
thm-<ø>-motive-rpt-rem that-<SgM> wipe-r/p-frs-<ø>

tsá(h) péé-tu-ne. [23]Áá-ne-rí-vá-a i
no go-neg-<n> thm-<ø>-oblIn-rpt-rem self

ñúcójpɨ́-vé-ne tsáhá-juco di-bye ímílle-tú [i
shame-sIn-<event> no-focus that-<SgM> want-neg self

íjchi-vyé-né i májcho-ki]. [24]Áá-ne-tú-vá-a
leave-sIn-<Ø> self eat-pur thm-<ø>-sou-rpt-rem

cááni i wáájácú-ne néé-h [ɨ ɨ́ɨbúwá pañe]:
father self know-<event> say-<t> self heart inside

"¿ɨ́vee-kí-ami tsí-jpíllé-úba-ké-jɨ́ɨ́ hájchí-wu
why-pur-wonder other-<SgF>-prob-objAn-deny son-dim

í ñáá-lle-ke ééva-tso-j?"
self sibling-<SgF>-objAn pregnant-caus-voc

[25]Áá-be-ké-vá-a tsɨɨju i
thm-<SgM>-objAn-rpt-rem mother self

tyéhme-h íjcyá-ró-ne pé-jucóó-h [úmɨhé
wait-sub be-frs-<event> go-now-<t> field

pañé-vu]. [26]Aa-llé-vá-a ɨ́dsɨ́-wúu-ke
inside-goal thm-<SgF>-rpt-rem her.daughter-dim-objAn

bóné-lle-ke ne-íñú-hi: "Dí-ñáh-be-ke
after-<SgF>-objAn say-do.go-<t> your-sibling-<SgM>-objAn

néhi d-aacu majchó-vú di-bye
anticipation youImp-give food-goal that-<SgM>

| S V]) [22]Reason S Neg V (where S = [S V]) [23]Reason Cir$_s$ Neg S V DO (where Reason = Instr; DO = [V-s Pur$_s$]) [24]About S Cir$_s$ V Loc "QPur DO S DO V" (where DO...DO coordinate alternatives) OR <About> [S x s-V] V ... with About fronted

[25]<DO$_i$> S [ø$_i$ s-V Aux] V Goal [26]S DO | DO V "DO$_{recip}$ adv s-V Goal$_{theme}$ Adv$_d$" (where Adv$_d$ = [S V] with *-du*) [27]Sim || S V Aux

íjchivyé-du". [27]A-hdú-jucó-vá-a
leave-<like> thm-<like>-focus-rpt-rem

dí-llé-wu téhme-h íjcyá-ne. [28]Áá-náacá-vá-a
that-<SgF>-dim wait-sub be-<Ø> thm-while-rpt-rem

ijchívyé-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".
eat-fut-<t>

[30]Aa-né-vá-a i májcho-íñú-tsih-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

hyúmɨ-ri íjcya-ne] i nííñú-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 íjcya-ró-mé pá-raará-wuú-jɨ.
eat-sub be-frs-<AnPl> all-<spot>-dim-pl

[33]Áá-ne-má-vá-a tsá-ábe
thm-<ø>-with-rpt-rem come-<SgM>

ɨɨté-cunú-meí-va-rá-h [pá-hdu-re
look-sSt-r/p-come.do-frs-<t> all-<like>-only

te-ne néé]-neé. [34]Á-ró-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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[28]Time V-s [29]O V-s "DO Voc S V" (note clitics in quote)
[30]Link Cir$_s$ V-s Goal [31]S DO^1|DO^2 Goal V; DO^1 = [S^2 Loc V]; S^2 = [Sou N | N]; DO^2 = [s-V]. [32]DO V Aux Result (Result = small clause) [33]Cir S V DO; S = [V-s]; DO = [PredCmpl S V] [34]Cir V-s

he thought to himself, "How in the world can I make it disappear."

[35]Thinking like that, he put on the decorations they would have put on him for the festival. [36]In that circumstance he said to his little sister, "Now I am going away from you." [37]Therefore she said, "Where brother are you going?" [38]Therefore he said, "I am going to the sun." [39]Therefore she said, "I am going with you." [40]Therefore he said, "Then, sis, put on all

ɨ́jtsámeí-jyúco-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 ɨ ɨ́jtsámeí-yó-ne
that-<like>-rpt-rem self think-frs-<event>

[díí-bye-ké-vá-a [[[tee-ne wañéhjɨ́]
that-<SgM>-objAn-rpt-rem that-<ø> festival

pañe] i ícyá-ávé-tso-KI] di-tye
inside self decorate-sIn-caus-pur that-<AnPl>

pícyo-h íjcyá-ro]-né-vú pícyá-meí-íbye.
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 ñáá-llé-wúu-ke: "Í-cyooca o
self sibling-<SgF>-dim-objAn this-when I

pé-jucóó-h ú-hdi-tyu". [37]Áá-né-lliihyé-vá-a
go-now-<t> you-anim-sou thm-<ø>-motive-rpt-rem

neé-lle: "¿a-ca kiá-vú najme u
say-<SgF> y/n-doubt where-goal brother you

péé-hií?" [38]Áá-né-lliihyé-vá-a neé-be:
go-<t> thm-<ø>-motive-rpt-rem say-<SgM>

"O pé-jucóó-h [áádí élle]-vu [núhba
I go-now-<t> that.SgM place-goal sun

élle]-vu". [39]Áá-né-lliihyé-vá-a neé-lle:
place-goal thm-<ø>-motive-rpt-rem say-<SgF>

"QManSou S V" (Note the multiple case markers.)

[35]<Sim$_i$> Cir$_s$ DO V; Cir$_s$ = [ø$_i$ s-V]; DO = [DO Pur$_s$ S V Aux]; Pur$_s$ = [Loc V]; Loc = [[Dem | N] N]; Note the clitics within the indirect quote. [36]Cir V-s O "Time S V Source" [37]Reason V-s "Q QGoal Voc S V" [38]Reason V-s "S V Goal | Goal" (where each Goal = [N N]) [39]Reason V-s "CoS Man Voc S V" [40]Reason V-s "Interj Voc V

"Úú-ma ih-dyu ñajme o péé-hií".
you-with this-<like> brother I go-<t>

[40]Áá-né-lliihyé-vá-a neé-be: "Ané(h),
thm-<ø>-motive-rpt-rem say-<SgM> then

wa(h) pícya-méí dí-pa-mɨ́-jɨ́-wuú-ne-vu-j".
sis putImp-r/p your-all-<ornament>-pl-dim-goal-voc

[41a]A-hdú-jucó-vá-a [di-lle pícyá-meí]-lle-ke
thm-<like>-focus-rpt-rem that-<SgF> put-r/p-<SgF>-objAn

neé-be: "Eh-du néé-lle me
say-<SgM> that-<like> say-<SgF> SAP

péé-cooca cóhpe-ne míhchú-úve-co.
go-when hard-adv close.eyesImp-sIn-implore

[41b]D-ɨhté-cunú-dí-ñe." [42]Áá-né-liihyé-vá-a
youImp-look-sSt-neg-<n> thm-<ø>-motive-rpt-rem

neé-lle: "Juújuj". [43]Aa-né-vá-a tsúúca
say-<SgF> ok thm-<ø>-rpt-rem already

[í újɨ́bá hallú-vú] i pícyóó-lle-ma
self shoulder top-goal self put-<SgF>-with

wáámené-júco-óbe. [44]Á-ró-náacá-vá-a tsúúca
fly.up-now-<SgM> thm-frs-while-rpt-rem already

ílli-tyé-júcóó-llé-wu. [45]Aa-llé-vá-a
fear-go.do-now-<SgF>-dim thm-<SgF>-rpt-rem

wáníjcyá-meí-hi: "¡Ó ááákítye-é-h nájmee!
scream-r/p-<t> I fall-fut-<t> bud

¡Ó ááákítye-é-hií!" [46]Néé-lle-ré-vá-a
I fall-fut-<t> say-<SgF>-only-rpt-rem

córɨ́-ɨ́ve-íñú-h baa-vú-juco úwáhllo-jɨ́-ré-juco.
unstick-sIn-do.go-<t> below-goal-focus nightingale-sg-only-focus

your little jewels." [41a]She put them on and he said to her, "You being like that, when we go, close your eyes tight. [41b]Do not look." [42]Therefore she said, "OK." [43]Then, already having put her on his shoulder he flew up. [44]However she already became scared. [45]She screamed, "I am going to fall bud, I am going to fall." [46]Saying that she became unstuck and left to go below being a nightingale now. [47]After that he flew

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Th" (Note the change of case with reflexive.) [41a]Cir[1] O V-s "Cir2 Adv$_d$ Adv s-V.; O = [[S$_i$ V]-head$_i$]; Cir[2] = [Sim V-s$_i$]; *cóhpe-ne* is a degree adverb; perhaps it bears *-ne* because it refers to the eyes? [41b]s-V" [42]Reason V-s "X" [43]Link Cir$_s$ V-s (where Cir$_s$ = [Adv Goal V-s]) [44]Time Adv V-s [45]S V* "S V Voc. S V" Note that the quotative verb is "scream," not "say." [46]S* V Goal Result (where S* is nominal-

up by himself. [48]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." [49a]Father considering him said, "You will be a father of animals. [49b]You go with the shame of having caused your sister to be pregnant like animals who cause their sisters to be pregnant." [50]That is what he said about his going.

[47][Áá-né booné-vá-a] ii-yé-juco di-bye
thm-<ø> after-rpt-rem self-only-focus that-<SgM>

wáámené-ne. [48]Aa-bé-vá-a
fly.up-<Ø> thm-<SgM>-rpt-rem

[[tsí-hullé-juco] [ojtsó pañe] íjcyá-náa] [cááni
other-<yonder>-focus clouds inside be-while father

hájkí-mú] [[úmé bajú-ne-ri] íjcya-me] [i
relative-pl jungle.salt jungle-pl-oblIn be-<AnPl> self

ájtyúmɨ-ne] néé-hií: "Í ñáá-lle-ké-vá-a
see-<event> say-<t> self sibling-<SgF>-objAn-rpt-rem

i éévá-tsó-ne-ri i ñúcójpɨ-vé-ne
self pregnant-caus-<event>-oblIn self shame-sIn-<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-lle-ke
animal-<AnPl> WH-<ø> self sibling-<SgF>-objAn

ééva-tsó]-dú [dí-ñáá-lle-ke u
pregnant-caus-<like> your-sibling-<SgF>-objAn you

éévá-tsó-né] nucójpɨ]-ri u péé-beé".
pregnant-caus-<event> shame-oblIn you go-<SgM>

[50]Eh-dú-vá-a nee-be di-bye
that-<like>-rpt-rem say-<SgM> that-<SgM>

péé-ne-tu.
go-<ø>-sou

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ized verb) [47]TempP Adv* || S V (Note: *i* 'self' is the root; it must be lengthened because it is a single mora. Word formation does not see the clitics.) [48]<S_i> Time S Cir^1_s V "Cir^2_s Cir^3_s V-s" (where Time = [$ø_i$ Loc, Loc V]; S = [N N]; Cir^1_s = [Instr V] 'be at getting'; Cir^2_s = [DO V]). [49a]<DO_i> Cir_s V-s S "Interj PredCmpl S V-s. [49b]Reason S V-s; Reason = [Sim DO s-V]; Sim = [S DO V] [50]Sim V-s S Sou ('say about')

[51]Aa-né-vá-a [[di-bye pé-júcóó-né]
thm-<ø>-rpt-rem that-<SgM> go-now-<event>

boone] [dii-lle ɬdsɬ]-ke neé-be:
after that-<SgF> her.daughter-objAn say-<SgM>

“Nújpa caañu [[[ámúhtsi-kyé-ne o
water carryImp you.DuM-objAn-rec I

wáñehjɬ-nú-í-yó]-né ijtyá-mú] o gúnújcu-KI
festival-do-fut-frs-<ø> starch-pl I prepare.drink-pur

[ta hájkí-mu-ma muha ma ádo-ki]]”.
my relative-pl-with we.ex SAP drink-pur

[52]A-hdú-jucó-vá-a di-lle nújpa cááñu-ne.
thm-<like>-focus-rpt-rem that-<SgF> water carry-<Ø>

[53]Aa-né-vá-a [tee-ne llíyihlló-né wáhpe-du]
thm-<ø>-rpt-rem that-<ø> pot-pl full-<like>

nee-be cáánií: “Í-ñe-rí-yé-juco tsahróba-ri
say-<SgM> father this-<ø>-oblIn-only-focus basket-oblIn

nujpá-ñu”. [54]A-hdú-jucó-vá-a di-lle
water-doImp thm-<like>-focus-rpt-rem that-<SgF>

péé-neé. [55]Aa-llé-vá-a [téé-hí
go-<Ø> thm-<SgF>-rpt-rem river-<stick>

pañé-vú úúje-té-llé] téé-ne-ri tsahróba-ri
inside-goal arrive-go.do-<SgF> that-<ø>-oblIn basket-oblIn

nupá-ñu-h íjcya-rá-hi. [56]Á-ro-né-vá-a i
water-do-sub be-frs-<t> thm-frs-<ø>-rpt-rem self

pyé-hdú pe-h íjcyá-hi. [57]Áá-ne-rí-vá-a
go-<like> go-sub be-<t> thm-<ø>-oblIn-rpt-rem

| [[di-lle íjcyá-né] hallú-rí] cááni-mu
that-<SgF> be-<event> top-oblIn father-pl

[51]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.”[52]It was thus that she carried water. [53]Then when the pots were full of water father said, “Now get water in this basket.” [54]It was thus that she went. [55]Arriving at the river she got water in the basket in vain. [56]However it kept on running out. [57]While she was at that,

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[51]Link TempP O V “DO V Pur_d^1” (where TempP = [[S V]@TempN]; O = [N | N]-case; Pur_d^1 = [DO S V Pur_d^2]; DO = [[DO S V]@N]) [52]Sim || S DO V [53]Link Cir_d V-s | S “Instr | Instr s-V” (where Cir_d = [S | S PredCmpl (BE)]) [54]Sim || S V [55]S Cir_s DO | DO V Aux (where Cir_s = [Goal V-s]) [56]S Cir_s V Aux (where Cir_s = [s-V]) [57]Time

íjtyá-mu-ri ávuhcú-jucóó-h [díí-lle-dí-tyú i
starch-pl-oblIn bathe-now-<t> that-<SgF>-anim-sou self

úmɨva-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-jucóó]-ne. [59]Aa-né-vá-a [újcóju-tu
go-now-<ø> thm-<ø>-rpt-rem port-sou

tsáá-lle] wajtsɨ́-h íáva-já-vu-ré-juco.
come-<SgF> arrive.here-<t> empty-<shelter>-goal-only-focus

[60]Aa-llé-vá-a néé-hií: "¿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: úwaajɨ-muu, ííwacyoo, ɨjcuu,
that-thus-<AnPl> type.ant-pl snake paucar

úúcume, ííhyoo, 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

díllo-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

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

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| Time* S Instr Pur$_s$ (where Time* = [[S V]@N]; Pur$_s$ = [Sou s-V])
[58]Link Neg S V DO (where DO = [Sou S V]) [59]Link S V Goal (where S = [Sou V-s]) [60]S V "QGoal S | S V"

[61]Link S (BE) PredCmpl: S* (BE) PredCmpl (where S* = [N N N N Sum]) [62]S$_{partitive}$ V-s O "Voc Voc QGoal S V" [63]Reason V-s "Loc[1]

[63]Áá-né-lliihyé-vá-a ne-ébe: “ííllej,
thm-<ø>-motive-rpt-rem say-<SgM> here

[úllébá lliíñe].” [64]Eh-dú-vá-a
plate underneath that-<like>-rpt-rem

né-ébe-re dsɬɬne-íñu-h íjcyá-h [úllébá
say-<SgM>-only run-do.go-sub be-<t> plate

lliiñé-vu]. [65]Áá-náacá-vá-a íí
underneath-goal thm-while-rpt-rem self

tyáá-llé-coba íñiiñé-rí i
grandparent-<SgF>-aug place.near-oblIn self

hwáábyaá-ri. [66]Áá-lle-ké-vá-a
hammock-oblIn thm-<SgF>-objAn-rpt-rem

neé-lle: “Taá-lle-j, ¿kiá-vú-amí-ñe
say-<SgF> grandparent-<SgF>-voc where-goal-wonder-rec

waháró-mú peé-j?”
mother-pl go-voc

[67]Áá-né-lliihyé-vá-a neé-lle: “Cáhawáá
thm-<ø>-motive-rpt-rem say-<SgF> suggest

bo(h) í-ñe pá-ne-ere | [dɬɬ-tsɬɬju bájtso-háñé]
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 píhjyucú-né pá-ne-ere [tsɬɬju
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][Áá-né nɬjcáu]-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,

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Loc^2” [64]<Sim$_i$> S V Aux Goal (where S = [$_i$ V-s]) [65]Time S Loc | Loc (BE). Note: locatives marked with *-ri* ‘oblIn’. [66]S V-s “Voc QGoal S V”

[67]Reason V-s “ProSent DO | DO | DO V Pur$_d$ (where Pur$_d$ = [S V]) [68]Sim || S V DO [69]Link V-s [70]Time V-s “ProSent s-V Sou”

let's go after your parents." [71]Thus saying she dug up some ashes from her fireplace. [72]While they were going into that hole she returned a little distance from her grandmother. [73]Thus it was on that trail that she went with her pets. [74]She arrived to where the bird (*chicua*) was. [75]She was with him for a long time. [76]He said to her in order to go: "You stay here. [77]I will go hunt at my fields. [78]If the people beat me up, you will know right from the yellowing of my medicine plant

"Áju(h), májo [dɨ́ɨ́-tsɨ́ɨ́jú-mu déju]-tu".
ready let's.go your-mother-pl behind-sou

[71]Eh-dú-vá-*a* néé-lle-re tsehdí-h [í
that-<like>-rpt-rem say-<SgF>-only dig-<t> self

jcyujúwá llíjyu-tu] [72]Á-hejú-ri-vá-*a*
fire ashes-sou thm-<hole>-oblIn-rpt-rem

[di-tyépɨ́ pé-júcóó-ró-náa] óómi-lle
that-<DuF> go-now-frs-while return-<SgF>

dii-lle íí tyáá-lle-dí-tyú
that-<SgF> self grandparent-<SgF>-anim-sou

wahájchotá-tú-re. [73]Aa-llé-vá-*a*
short.distance-sou-only thm-<SgF>-rpt-rem

juuvá-yi-yé-juco péé-ne i jyéé-ú-wuú-mu-ma.
trail-oblIn-only-focus go-<Ø> self pet-sg-dim-pl-with

[74]Aa-llé-vá-*a* úúje-té-h
thm-<SgF>-rpt-rem arrive-go.do-<t>

báádsɨ́-di-vu. [75]Áá-be-má-vá-*a* íjcya-lle
type.bird-anim-goal thm-<SgM>-with-rpt-rem is-<SgF>

kémú-élléh-ré-juco. [76]Áá-lle-ké-vá-*a*
distant-<place>-only-focus thm-<SgF>-objAn-rpt-rem

i úlle-té-KI ne-ébe: "Di-ícya.
self walk-go.do-pur say-<SgM> youImp-be

[77]Ó-i ó llííñájaa-té-h í-chií-yé-i
I-PT I hunt-go.do-<t> this-<place>-only-PT

tá-hjɨ́-háñe. [78][[Áá-be-ke o-ke múnaa
my-<disk>-pl thm-<SgM>-objAn I-objAn people

méénú-júcóó-hajchíí] í-ñe tá-ñuubúmu-ba
beat-now-if this-<ø> my-med.pl-sg

Note case: Goal with *-tu* 'source' [71]<Sim$_i$> S V Sou (where S = [ø$_i$ V-s]) [72]<Instr$_i$> Time V-s | S Sou | Sou (where Time = [ø$_i$ S V]) [73]S Instr || V CoS [74]S V Goal [75]CoS V-s Time [76]<O$_i$> Pur$_s$ V-s "s-V" (where Pur$_s$ = [ø$_i$ s-V]) [77]S | S V Loc | Loc [78]Sou S V DO (where Sou = [Cond S | S V], Cond = [DO | DO S V]; DO = [DO S

llíjcya-nú-ne-tú-ré] ú waajácu-ú-h [tsúúca o-ke
yellow-do-<ø>-sou-only you know-fut-<t> already I-objAn

di-tye méénu]-ne". [79]A-hdú-jucó-vá-a
that-<AnPl> beat-<ø> thm-<like>-focus-rpt-rem

di-lle ɨtso-h íjcyá-ne. [80]Áá-náacá-vá-a
that-<SgF> expect-sub be-<Ø> thm-while-rpt-rem

áábaúvú-dú-ré tee-ne [díí-byé
suddenly-<like>-only that-<ø> that-<SgM>

nuubúmu-ba] llíjcya-nú-hi. [81]Aa-né-vá-a
med.pl-sg yellow-do-<t> thm-<ø>-rpt-rem

i ájtyúmɨ-ne neé-lle: "Tsúúcajá-ubá
self see-<event> say-<SgF> already-prob

báádsɨ-ke múnaa meenú-jucóó-hi. [82]Muurá
chicua-objAn people beat-now-<t> for

í-ñe tsúúca í-ñuubúmu-ba llíjcya-nú-hi.
this-<ø> already his-med.pl-sg yellow-do-<t>

[83]¡ɨ́vee-kí-hyana! ¿Múú-má o íjcya-ki...?"
why-pur-wonder WH-with I be-pur

[84]Eh-dú-vá-a i ñéé-ne tá-júcoo-lle
that-<like>-rpt-rem self say-<event> cry-now-<SgF>

mítya-ne. [85]Á-tsih-dyú-vá-a idyé
much-adv thm-<place>-sou-rpt-rem like.before

neé-lle: "¡ɨ́vee-kí-hyana! ¿kiá-vú o péé-KI
say-<SgF> why-pur-wonder where-goal I go-pur

tsúúca báádsɨ dsɨjɨvé-hi?"
already chicua die-<t>

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?"

V]; note that *-tu* 'source' marks the basis for knowing) [79]Sim ‖ S V Aux [80]Time Adv S | S V [81]<DO_i> Cir_s V-s "Adv DO S V" (where Cir_s = [ø$_i$ s-V]) [82]Link S_i Adv S_i V (where the S_i are appositive, although not adjacent) [83]Interj QCoS S V [84]<Sim_i> Cir_s V AdvDeg (where Cir_s = [ø$_i$ s-V]) *mítya-ne* is a degree adverb [85]Interj Sim V-s "Pur_d Adv S V" (where Pur_d = [QLoc S V])

[86]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?" [89]Therefore she informed: "On this trail. [90a]However it is already dark. [90b]Sleep here with me. [91]Go tomorrow." [92]Thus it was that she slept with her. [93]She told her: "Going from here you will arrive to 'this trail, that trail'

[86]Eh-dú-vá-*a* i ñéé-ne pé-júcoo-lle
that-<like>-rpt-rem self say-<event> go-now-<SgF>

[di-byé-vá-*a* úúbállé-ju-rí-jyuco]
that-<SgM>-rpt-rem tell-<channel>-oblIn-focus

[ts+́+́jú-mu déju]-tu. [87]A*a*-llé-vá-*a*
mother-pl behind-sou thm-<SgF>-rpt-rem

pé-h íjcy*a*-lle úúje-té-h [Cállúr+́+́j+́-b*a*
go-sub be-<SgF> arrive-go.do-<t> hunchback-sg

méé*w*a-dí-vu]. [88]Áá-lle-ké-vá-*a* díllo-lle:
wife-anim-goal thm-<SgF>-objAn-rpt-rem ask-<SgF>

"T*a*á-lle-j, ¿kéé-ju-rí-amí-ñe
grandparent-<SgF>-voc which-<channel>-oblIn-wonder-rec

*w*aháró-mú peé-j?" [89]Áá-né-lliihyé-vá-*a*
mother-pl go-voc thm-<ø>-motive-rpt-rem

úúbálle-lle: "í-jyuu-rí-ñeécu. [90a]Á-ró-n*á*a
tell-<SgF> this-<channel>-oblIn-affirm thm-frs-while

cúvéh-ré-juco teé-ne. [90b]F́-chií-yé-i
dark-only-focus that-<ø> this-<place>-only-PT

óó-m*a* cu*w*a. [91]Péjco-ré-c*a* di-pye".
I-with sleepImp night-only-suggest youImp-go

[92]A-hdú-jucó-vá-*a* díí-lle-má-i di-lle
thm-<like>-focus-rpt-rem that-<SgF>-with-PT that-<SgF>

cú*w*a-ne. [93]Áá-lle-ké-vá-*a* úúbálle-lle:
sleep-<Ø> thm-<SgF>-objAn-rpt-rem tell-<SgF>

"[Í-chih-dyu u péé-lle] ú úújé-te-é-h
this-<place>-sou you go-<SgF> you arrive-go.do-fut-<t>

í-jyu né-ju méé*w*a-dí-vu.
this-<channel> that-<channel> wife-anim-goal

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[86]<Sim$_i$> Cir$_s$ V-s Instr Goal (where Cir$_s$ = [ø$_i$ s-V]; Goal = [N | N]-case, where the case is *-tu* 'source'; note the use of *-va* 'reportative') [87]S Cir$_s$ V Goal (where Cir$_s$ = [V Aux-s]) [88]S V "Voc QInstr S V" [89]Reason V-s "Instr" (There is a direct quote without *nee-* 'say'; *-ñeécu* 'affirmation' is archaic.) [90a]Time PredCmpl || S [90b]Loc CoS s-V [91]Time s-V [92]Sim || CoS S V [93]O V-s "S* |s V Goal" (where S*

[94]Aa-lle múú-ne me-ke dóó-hií.
that-<SgF> WH-<ø> SAP-objAn eat-<t>

[95]Áá-lle-dí-vú u úúje-té-lle-ke
thm-<SgF>-anim-goal you arrive-go.do-<SgF>-objAn

ú díllo-ó-hi: 'Taá-lle-j,
you ask-fut-<t> grandparent-<SgF>-voc

¿kéé-ju-rí-amí-i waháró-mú
which-<channel>-oblIn-wonder-rem mother-pl

peé-j?' [96]Áá-né-llii u-ke úúbállé-i-lle:
go-voc thm-<ø>-motive you-objAn tell-fut-<SgF>

'í-jyuú'. [97]Aa-ne ['í-jyuú'
this-<channel> thm-<ø> this-<channel>

u-ke di-lle néé-ju-rí-jyuco]
you-objAn that-<SgF> say-<channel>-oblIn-focus

ɨɨcúi u péé-i-ñe. [98][Áá-né
quickly you go-fut-<Ø> thm-<ø>

boone] [['ɨ́-jyuú' u-ke di-lle
after this-<channel> you-objAn that-<SgF>

néé-ró-náa] u íjyá-cunú-hajchíí] u-ke
say-frs-while you delay-sSt-if you-objAn

dóó-i-lle." [99]Eh-dú-vá-a díí-lle-ke
eat-fut-<SgF> that-<like>-rpt-rem that-<SgF>-objAn

úúbálle-lle. [100]A-hdú-jucó-vá-a
tell-<SgF> thm-<like>-focus-rpt-rem

pé-h íjcya-lle úúje-té-né [dii-lle
go-sub be-<SgF> arrive-go.do-<Ø> that-<SgF>

| ['í-jyu hé-ju' mééwa-dí]]-vu.
this-<channel> that-<channel> wife-anim-goal.

wife. [94]She is one that eats us. [95]Arriving to her, ask her: 'Grandma, on which trail did my parents go?' [96]Therefore she will tell you, 'this trail'. [97]Then go quickly on the trail that she tells you. [98]After that, if you delay going on the trail on which she told you to go, she will eat you." [99]That's what she told her. [100]Thus it was that having gone along she arrived to the 'this trail, that trail' wife. [101]She asked her: "On which trail did my

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= [Sou S V-s]) [94]S DO | DO V [95]<Goal$_i$> O S V 'Voc QInstr S V'; O = [[ø$_i$ S$_k$ V]-head$_k$ [96]Reason O V-s 'NP' [97]Link Instr ‖ Adv S V; Instr = [['NP$_i$' S V]-head$_i$] [98]TempP Cond DO V-s (where Cond = [Time S V] and Time = ['NP' O S V]) [99]Sim O V-s [100]<Sim$_i$> ‖ Cir$_s$ V Goal (where Cir$_s$ = [ø$_i$ V Aux-s]) [101]O V-s "Voc QInstr S V" [102]Reason V-s "NP" [103]Instr ‖ S V [104]TempP V-s "..." [105]Time

parents go?” [102]Therefore she told her: “This trail.” [103]It was on that trail that she went. [104]After that she (the old woman) said: “This trail, that trail. This trail, that trail.” [105]Right when she said that, she (the girl) ran. [106]She kept going and arrived to where Uminuri was chopping in his field (in which the underbrush had previously been cut). [107]Upon seeing her: “Where are you going?” saying, leaving what he was getting,

[101]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>-oblIn-wonder-rem

waháró-mú peé-j?”
mother-pl go-voc

[102]Áá-né-lliihyé-vá-a úúbálle-lle: “Í-jyuú”.
thm-<ø>-motive-rpt-rem tell-<SgF> this-<channel>

[103]Áá-ju-rí-jyucó-vá-a di-lle
thm-<channel>-oblIn-focus-rpt-rem that-<SgF>

péé-neé. [104][Áá-né booné]-vá-a neé-lle:
go-<Ø> thm-<ø> after-rpt-rem say-<SgF>

“¡Í-jyu hé-ju, í-jyu
this-<channel> that-<channel> this-<channel>

hé-ju!” [105]Á-ró-náacá-jucó-vá-a
that-<channel> thm-frs-while-focus-rpt-rem

di-lle dsɨ́ɨ́né-jucóó-ne. [106]Aa-llé-vá-a
that-<SgF> run-now-<Ø> thm-<SgF>-rpt-rem

pé-h íjcya-lle úúje-té-h [Úmɨ́nurɨ́
go-sub be-<SgF> arrive-go.do-<t> (name)

í-ñajá-jɨ́ íllo-h íjcyá]-ábe-dí-vu.
his-cut.underbrush-<disk> chop-sub be-<SgM>-anim-goal

[107][Áá-lle-ké-vá-a i ájtyúmɨ́-ne]
thm-<SgF>-objAn-rpt-rem self see-<event>

[[“¿Kiá-vú u péé-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>

‖ S V [106]S | S^* V Aux Goal; S^* = [V-s]; Goal = [S_i DO V]-head$_i$] [107]<DO_i> Cir^1_s S Cir^2_s V (where Cir^1_s = [ø$_i$ s-V]; S = [“QGoal S V” V-s]; Cir^2_s = [s-V]) [108]<DO_i> Goal V-s DO | DO (where Goal = [ø$_i$ Goal s-V]) úmé ‘jungle salt’ is made from the ashes of certain trees; although here and below the word is only ‘salt’, it is understood that it refers to the packet in which the salt is stored. [109]CoS ‖ S V [110]S

[108]Áá-lle-ké-vá-a [[[úmé pañé-vú] i
thm-<SgF>-objAn-rpt-rem salt inside-goal self

pícyóó-llé] hallú-vú] chíjchu-ube tee-ne ume.
put-<SgF> top-goal tie-<SgM> that-<ø> salt

[109]Áá-lle-má-jucó-vá-a di-bye tsáá-neé.
thm-<SgF>-with-focus-rpt-rem that-<SgM> come-<Ø>

[110]Aa-bé-vá-a méwa-kye nee-vá-hi:
thm-<SgM>-rpt-rem wife-objAn say-come.do-<t>

"Muú-lle-j, bújcájaa-co [ta-úmé kikííjyeba]
age.mate-<SgF>-voc bakeImp-urgent my-salt brains

o lléhdo-ki". [111]Áá-né-lliihyé-vá-a áñújcu-lle
I eat-pur thm-<ø>-motive-rpt-rem answer-<SgF>

mewa: "Juújuj". [112]Á-tsih-dyú-vá-a
wife ok thm-<place>-sou-rpt-rem

idyé ne-ébe: "Ó-i muu-lle ó
after say-<SgM> I-PT age.mate-<SgF> I

cóó-va-té-hi". [113]Aa-bé-vá-a
firewood-have-go.do-<t> thm-<SgM>-rpt-rem

pé-jucóó-hi." [114][Áá-né booné]-vá-a ih-dyu
go-now-<t> thm-<ø> after-rpt-rem this-<like>

neé-lle: "¡Behtyúne íjcyá-hi! ¿Mú-hwúu-ké-jucó
say-<SgF> be.certain be-<t> WH-dim-objAn-focus

i tsívá-ne Úmɨnurɨ ɨɨ-ná: "[Ta-úmé
self bring-<event> (name) this-<ø> my-salt

kikííjyeba] o lléhdo-KI bújcájaá-co" né-h ijcyá-ne.
brain I eat-pur bake-urgent say-sub be-<Ø>

[115]Eh-dú-vá-a néé-lle-re tee-ne [úmé
thm-<like>-rpt-rem say-<SgF>-only that-<ø> salt

he grabbed her. [108]Having put her into his salt pack, he tied it over where she was. [109]Along with her, he came. [110]He came and said to his wife: "Bake these brains with my salt so I can eat them together." [111]Therefore the wife answered: "OK." [112]At that point he said: "Sister, I'll go get firewood." [113]He went now. [114]After that she said: "For certain! Whom is this Uminuri bringing saying, 'Bake my salt and brains so I can eat them'?" [115]Saying that and untying

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O V "Voc s-V DO_i Pur_s" (where Pur_s = [S $ø_i$ V]) [111]Reason V-s | S "ProSent" [112]Link Adv V-s "S Voc S V" Note that *-tu* 'source' is not aspirated in *Á-tsih-dyú-vá-a*; this may be because of the preceding glottal stop, checking the aspiration of *ts*? [113]S V [114]TempP Sim V "Pred-Cmpl V. <QDO> s-V | S Cir_s" (where Cir = ['Pur V' V Aux]; Pur = [DO s-V] [115]Sim_i Cir_s Cir_s V DO (where Cir_s = [$ø_i$ s-V]; Cir_s = [DO

the salt packet she stared at that grin. [116]Thereupon she said, "What are you grinning about? [117]He keeps bringing people in order to eat them. [118]And what are you doing?" [119a]Thus saying and untying that, she said: "You may go. [119b]What in the world! [119c]You whom he brought to eat are grinning! [120]Your parents went on this trail." [121]Thus it was that she went on that trail.

[122]Then, after she had left, she exchanged her with a squash. [123]In

chíjchu-ta] i tsíñaá-yó-ne ɨɨté-cunú-h
tie-<used> self untie-sTr-<event> look-sSt-<t>

té-goojú-cunu. [116]Áá-ne-ré-jucó-vá-a
that-grin-sSt thm-<ø>-only-focus-rpt-rem

di-lle néé-neé: "¿ɨɨ-ná ú goojú-cunú-h
that-<SgF> say-<Ø> this-<ø> you grin-sSt-sub

ijcyá-hi? [117]Muurá(h) [ee-ne i dyóó-KI]
be-<t> for that-<ø> self eat-pur

mɨamúnáa-ke tsíva-h íjcya-ábe. [118]Áá-náa
people-objAn bring-sub be-<SgM> thm-while

¿ɨɨ-ne-rí uú?" [119a]Eh-dú-vá-a
what-<ø>-oblIn you that-<like>-rpt-rem

néé-lle-re i tsíñaá-yó-ne néé-hií: "Wa
say-<SgF>-only self untie-sTr-<event> say-<t> permission

di-pye-j, [119b]¡ɨɨ-ná! [119c][i dyóó-KI
youImp-go-voc this-<ø> self eat-pur

u-ke di-bye tsíva]-lle ú goojú-cunú-h
you-objAn that-<SgM> bring-<SgF> you grin-sSt-sub

ijcyá-hi. [120]Í-jyuu-rí-ñe dɨɨ-tsɨɨju-mu
be-<t> this-<channel>-oblIn-rec your-mother-pl

péé-hií." [121]A-hdú-jucó-vá-a di-lle
go-<t> thm-<like>-focus-rpt-rem that-<SgF>

péé-ne téé-ju-ri.
go-<Ø> that-<channel>-oblIn

[122]Aa-né-vá-a [[di-lle
thm-<ø>-rpt-rem that-<SgF>

péé-né] boone] cápáyo-áco-lle
go-<event> after exchange-sTr-<SgF>

| DO s-V]; DO = [s-V] (an active participle)) [116]Link || S V "X S V Aux [117]Link Pur_s DO V Aux (where Pur_s = [DO s-V]) [118]Time Instr S [119a]Sim_i Cir_s^1 Cir_s^2 V "Modal s-V. (where Cir_s^1 = [$ø_i$ V-s]; Cir_s^2 = [ø s-V] [119b]Interj [119c]S^1|S V Aux; S^1 = [Pur_s DO_i V]-$head_i$; Pur_s = [$ø_i$ s-V] [120]Instr S V [121]Sim || S V Instr

[122]Link TempP V-s Sou (where Time = [Cir_s PostPos]; Cir_s = [S

dóótó-u-tu. [123]Áá-ne-má-vá-a
squash-<sphere>-sou thm-<ø>-with-rpt-rem

chíjchu-lle di-byé-vá-a chíjchu-du
tie-<SgF> that-<SgM>-rpt-rem tie-<like>

cóhpé-ne-úvu. [124]Á-ró-náacá-jucó-vá-a
hard-adv-max thm-frs-while-focus-rpt-rem

di-bye tsáá-neé. [125]Aa-bé-vá-a
that-<SgM> come-<Ø> thm-<SgM>-rpt-rem

cujúwaa-ñú-vá-hi. [126]Aa-né-vá-a
fire-make-come.do-<t> thm-<ø>-rpt-rem

[péété-né hallú-vú] wátyu-áco-obe
burn-<event> top-goal put.across-sTr-<SgM>

tee-ne i úme. [127]Aa-né-vá-a
that-<ø> self salt thm-<ø>-rpt-rem

áí-ívyé-ne-tu tee-ne dóóto-u
burn-sIn-<event>-sou that-<ø> squash-<sphere>

neebó-h "tóó" [128]Áá-né-lliihyé-vá-a
pop.open-<t> "bang". thm-<ø>-motive-rpt-rem

ne-ébe: "¡Úú! ¿ɬvee-kí-ami [ta-úmé
say-<SgM> wow why-pur-wonder my-salt

kikííjyeba] ɬcúbáhrá-meíí?" [129]Eh-dú-vá-a
brains ruin-r/p that-<like>-rpt-rem

né-ébe-re dóuhá-yo-jé-h
say-<SgM>-only break-sTr-do.come-<t>

mááhó-jɨ-tu. [130]Áá-ne-má-vá-a
cassava-<disk>-sou thm-<ø>-with-rpt-rem

i chíhchá-có-ne májchó-ro-obe
self dunk-sTr-<event> eat-frs-<SgM>

that circumstance she tied it up like he had, real tight. [124]However while she was doing that he came. [125]He came and built a fire. [126]Then he put his salt packet on top of the fire. [127]After it heated up, it popped open with a bang. [128]Therefore he said: "Wow, why I wonder did my salt and brains get ruined?" [129]Saying that he went and broke off a piece of cassava. [130]With that (cassava), dunking it (in hot sauce), he ate it, but it was very bit-

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V]) [123]Cir V-s Sim_d Result (where Sim_d = [S V]) *cóhpé-ne-úvu* is a degree adverb. [124]Time ‖ S V [125]S V [126]$<\text{S}_i>$ Goal V-s DO | DO; Goal = [[ø$_i$ V] @ LOC] [127]$<\text{S}_i>$ Cir_s V "..." (where Cir_s = [ø$_i$ V]) [128]Reason V-s "Interj QPur S V" [129]Sim S V-s $\text{DO}_{partitive}$. (Note partitive with *-tu* 'source'.) [130]$<\text{DO}_i>$ Cir_s V-s Result (where Cir_s =

ter. [131]Then being frustrated he said: "Sister, I bet you sent away what I caught on my hunt." [132]After that he said: "What is it that I eat?" [133a]Whereupon again he said: "Instead should I eat you? [133b]Why did you send away what I caught on my hunt?" [134]Thus saying he hit her with a stick resulting in drawing blood. [135]Then getting (her dead body), he ate what he had stirred in the pot.

[136]After that he returned from getting his di-

paapá-wu. [131]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-lliiñája-j
age.mate-<SgF>-voc you-prob-nwit-rec my-hunt-x

táává] ú wallóó-hi". [132][Áá-né booné]-vá-a
catch you sent-<t> thm-<ø> after-rpt-rem

ne-ébe: "¿ɨɨ-ne-ré-juco o májcho-ró-ne?"
say-<SgM> what-<ø>-only-focus I eat-frs-<Ø>

[133a]Á-tsih-dyú-vá-a idyé ne-ébe:
thm-<place>-sou-rpt-rem before say-<SgM>

"¿Mityá uu-ké-ré o dóó-h íjcya-lle?
instead you-objAn-only I eat-sub be-<SgF>

[133b]ɨvee-ná [tá-lliiñája-j táává] ú wallóó-hi?"
why-<ø> my-hunt-x catch you send-<t>

[134]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 [apáhajchíí
hit-sTr-<t> tree-<tree>-<stick>-oblIn extent

tú-jpacyó]-ré-juco. [135]Aa-né-vá-a
blood-<liquid>-only-focus thm-<ø>-rpt-rem

i újcú-ne [llíyíhllo-ri i bóri-jcyó]-ne
self get-<event> pot-oblIn self stir-mTr-<ø>

do-óbe.
eat-<SgM>

[136][Áá-né booné-tu]-vá-a í wahdá-hí
thm-<ø> after-sou-rpt-rem self divining-<stick>

újcú-je-ebe téé-hi-yi i wáájácu-KI
get-do.come-<SgM> that-<stick>-oblIn self know-pur

[ø$_i$ s-V]); *-có* is an allomorph of *-acó* 'sTr' [131]Cir V-s "Voc S DO S V" (where DO = [[s-V] @ N]) [132]TempP V-s "QDO ‖ S V" [133a]Cir Adv V-s "QDO ‖ S V Aux" [133b]Reason DO S V [134]<Sim$_i$> Cir$_s$ DO V Instr Result; Cir$_s$ = [ø$_i$ V-s]; Result = [AdvDeg N] [135]<DO$_i$> Cir$_s$ Instr DO$_s$ V-s (where Cir^1_s = [ø$_i$ s-V] DO^2_s = [Loc s-V])

[136]TempP DO V-s Pur$_s$ (where Pur$_s$ = [s-V DO]; DO = [QGoal

[kiá-vú di-lle péé]-neé. [137]Aa-né-vá-a
where-goal that-<SgF> go-<ø> thm-<ø>-rpt-rem

tsúúca i wáájácú-ne úrá-ávye-ebe
already self know-<event> follow-sIn-<SgM>

díí-lle-ke. [138]Í piijyú-wa-vá-a
that-<SgF>-objAn self hook-<slab>-rpt-rem

[di-bye wááo]-ne [díí-llé nííwá-co]-tu
that-<SgM> throw-<ø> that-<SgF> head-<hair>-sou

cápa-avyé-hi. [139]Aa-wá-vá-a i újcú-ne
hook-sIn-<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 wajtsɨ́-hi.
come-frs-<SgM> empty-<place>-goal arrive.here-<t>

[141]Á-tsih-dyú-vá-a pé-h íjcya-lle
thm-<place>-sou-rpt-rem go-sub be-<SgF>

úúje-té-h móóa-vu. [142]Áá-lle-ké-vá-a
arrive-go.do-<t> big.river-goal thm-<SgF>-objAn-rpt-rem

tsóvɨráco-mútsí pajtyé-tsó-hi. [143][Í
alligator-<DuM> pass-caus-<t> self

piijyú-wá dohjɨ́]-ri-vá-a pajtyé-tso-mútsi.
hook-<slab> line-oblIn-rpt-rem pass-caus-<DuM>

[144]Áá-náacá-vá-a ee-ne díí-lle-ke
thm-while-rpt-rem that-<ø> that-<SgF>-objAn

úrá-ávye-h íjcya-abe wajtsɨ́-jucóó-h
follow-sIn-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 arrived in vain to an empty place. [141]From there she going and going arrived 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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S V]) [137]<DO_i> Cir_s V-s DO (where Cir_s = [Adv ø$_i$ s-V]) [138]<S>|S* Site V (where S* = [[S ø$_i$ S V]-head$_i$]; Note case markers: Site with *-tu* 'source', somewhat like English *by the hair*.) [139]<DO_i> Cir_s Site V-s (where Cir_s = [ø$_i$ s-V]) [140]Link S Goal V [141]Sou$_i$ S V Aux Goal (where S = [ø$_i$ V-s]) [142]DO S V [143]Instr V-s [144]Time S | S* V Goal (where S* = [DO V Aux]-s) [145a]S s-V

was following her arrived there. [145a]He said, "Take me across. [145b]You--I am aware--helped my catch across." [146a]Therefore they said: "No, we don't see. [146b]How can we pass you over? [147]Therefore he said: "Even so, like you did before, cause me to get across, so I can follow my catch." [148]"OK," they said and tied the hook to a very old line. [149]With that they said: "Come on then, grab hold here so that we can pass you across." [150]Thus it was that the line to which the two

té-tsih-vu. [145a]Aa-bé-vá-a
that-<place>-goal thm-<SgM>-rpt-rem

néé-hií: "O-ke mé pajtyé-tso;
say-<t> I-objAn SAP pass-caus

[145b]ámuhtsí-hjya-né ta-jtyáává mé pajtyé-tsó-hi".
youDuM-aware-rec my-catch SAP pass-caus-<t>

[146a]Áá-né-lliihyé-vá-a nee-mútsi: "Tsáhaá.
thm-<ø>-motive-rpt-rem say-<DuM> no

Muhtsí ma ájtyúmɨ-ne-jɨɨ: [146b]¿Mu-hdú
we.ex SAP see-<ø>-contra.pos WH-<like>

mé pajtyé-tso-ó-hi?" [147]Áá-né-lliihyé-vá-a
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-tsó [o úrá-ávye-KI ta-jtyááva]".
pass-caus I follow-sIn-pur my-catch

[148]["Juújuj", néé-mutsí]-yé-jucó-vá-a
ok say-<DuM>-only-focus-rpt-rem

ɨhdé-é-u-úvu-tu í piijyú-wá
earlier-per-<sphere>-max-sou self hook-<slab>

dóhjɨ-nú-ne. [149]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
youImp-grab-sIn you-objAn we.DuM SAP

pájtyé-tso-ki". [150]A-hdú-jucó-vá-a
pass-caus-pur thm-<like>-focus-rpt-rem

"DO s-V [145b]S DO s-V [146a]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*.) [146b]QSim S s-V [147]Reason V-s "Link Sim DO s-V Pur_d (where Pur_d = [S V DO]) [148]S Site DO V; S = [["ProSent" V]-head] [149]Cir V-s "Modal Site s-V Pur_d" (where Pur_d = [DO S s-V]) [150]Sim ||

[éké-évé-ébe-ke di-tyétsí píjyúcu-ró]-né
grab-sIn-<SgM>-objAn that-<DuM> hook-frs-<ø>

vúdo-ové-h pɨ́ɨ́né-e-mó-vú-re.
break-sIn-<t> middle-per-<big.river>-goal-only

[151]Áá-be-ké-vá-a tsuuca mehdóbá
thm-<SgM>-objAn-rpt-rem already crocodile

dóó-hií.
eat-<t>

[152]Á-tsih-dyú-vá-a pé-h íjcya-lle
thm-<place>-sou-rpt-rem go-sub be-<SgF>

úúje-té-h [tsii-ñe móóa]-vu.
arrive-go.do-<t> again-<ø> big.river-goal

[153]Aa-llé-vá-a néé-h i jyéé-ú-wuú-mu-ke:
thm-<SgF>-rpt-rem say-<t> self pet-sg-dim-pl-objAn

“Tá-jye, ta-jyéé-mu-j, í-ñe mooa mé
my-pets, my-pet-pl-voc this-<ø> big.river SAPImp

tsotsó-jcó te-ne i árá-áve-KI me pájtye-ki”.
empty-mTr that-<ø> self dry.up-sIn-pur SAP pass-pur

[154]A-hdú-jucó-vá-a dii-tyé-wuú-jɨ́ ádo-h
thm-<like>-focus-rpt-rem that-pl-dim-pl. drink-sub

íjcya-ró-ne. [155]Aa-né-vá-a [té-tsii
be-frs-<Ø> thm-<ø>-rpt-rem that-<place>

di-lle ícya-h íjcyá-náa] nihba tsáá-hií.
that-<SgF> be-sub be-while alligator come-<t>

[156]Áá-be-ké-vá-a neé-lle: “Táhdi-j,
thm-<SgM>-objAn-rpt-rem say-<SgF> grandpa-voc

o-ke pajtyé-tso”. [157]Áá-né-lliihyé-vá-a
I-objAn passImp-caus thm-<ø>-motive-rpt-rem

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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S V Loc; S = [DO S V]-head [151]DO Adv S V
[152]<Sou$_i$> Cir$_s$ V Goal (where Cir$_s$ = [ø$_i$ V Aux-s]) [153]S V O “Voc Voc DO | DO s-V Pur$_d$ Pur$_s$ (where Pur$_d$ = [S V] and Pur$_s$ = [s-V]) [154]Sim || S V Aux [155]Link Time S V (where Time = [Loc S V Aux]) [156]O V-s “Voc DO V” [157]Reason V-s “ProSent Goal s-V Goal (The two goals are appositive, but also general ... specific.) [158]Sim ||

the other side. [157]Therefore he said: “OK, sit down here on my nose.” [158]Thus he took her across.

[159]From there she went to her mother, but the mother's two sons ate up that one who arrived. [160]After that her mother took that dead woman's child. [161]When he grew up he also killed them.

ne-ébe: “Juújuj, í-chih-vu d-acú-úvé
say-<SgM> ok this-<place>-goal youImp-sit.down-sIn

[tá-tyújú-hó hallú-vu]”. [158]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>

[159]Á-tsih-dyú-vá-a [péé-lle
thm-<place>-sou-rpt-rem go-<SgF>

tsɨɨjú-mu-dí-vú úúje-té-ró]-lle-ke [tsɨɨjú
mother-pl-anim-goal arrive-go.do-frs-<SgF>-objAn mother

hájchi-mútsí] dó-pejtsó-hi. [160]Áá-ne-tú-vá-a
son-<DuM> eat-contact-<t> thm-<ø>-sou-rpt-rem

[díí-lle-úvú-j tsɨɨméne]-ke tsɨɨju ujcú-hi.
that-<SgF>-max-x child-objAn mother get-<t>

[161]Áá-bé-wuú-vá-a i kyéémé-ne
thm-<SgM>-dim-rpt-rem self grow.up-<event>

té-hdu-re dii-tyétsi-kye dsɨjɨve-tsó-hi.
that-<like>-only that-<DuM>-objAn die-caus-<t>

DO S V (where DO = [V-s])

[159]Sou DO S V; DO = [[S Goal V]-head], S = [V-s]) [160]Time DO S V (where Time bears *-tu* ‘source’) [161]S | S* Sim DO V (where S* = [s-V])

Ajcyómé Úmɨhe

They Cultivate the Field

[1]Father: Wáha-j, majo [úmɨhe ma
daughter-voc let's.go.Du field SAP

ájcyo-té-ki]. [2]Daughter: Juúju. [3]Father:
cultivate-go.do-pur ok

"¿Múha tsáá-hií?" [4]Daughter: Mehéro
who come-<t> aunt

tsá-jucóó-hi. [5]Méhe-j, ¿á u tsá-jucóó-hi?
come-now-<t> aunty-voc y/n you come-focus-<t>

[6]Aunt: Ée, o tsá-jucóó-hi. [7]Majchó-va-j.
yes I come-focus-<t> eatImp-come.do-voc

[8]Daughter: Juújuj. [9]Áyu(h) méhe-j,
ok fine aunty-voc

éh-du-né-re. [10]Ó oové-jucóó-hi. [11]Ayúwa
that-<like>-<ø>-only I full-now-<t> ready

metsu úmɨhé-vu. [12]Father: Llíhi-j, muha me
let's.go.Pl field-goal son-voc we.ex SAP

pé-jucóó-hi. [13]Son: Juújuj." [14]¿Mú-cooca
go-now-<t> ok WH-when

ámuha mé óómi-í-hi? [15]Father: Cuúve.
you.Pl SAP do.come-fut-<t> dark

[16]Son: Muú-lle-j, [u tsá-cooca] cúdsɨ-tu
age.mate-<SgF>-voc you come-when pineapples-sou

[1]Father: Daughter, let's go cultivate the field. [2]Daughter: OK. [3]Father: Who is coming? [4]Daughter: My aunt is coming. [5]Aunty, are you coming? [6]Aunt: Yes I am coming. [7]Come eat! [8]Daughter: OK. [9]OK aunty, that is enough. [10]I'm full now. [11]OK let's go to the field. [12]Father: Son, we are going now. [13]Son: OK. [14]When will you return? [15]Father: Late. [16]Son: Sister, when you come, bring some pineapple so I can eat

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[1]Voc V Pur_s (where Pur = [DO s-V]) [2]ProSent [3]QS V [4]S V [5]Voc $Q_{y/n}$ S V [6]ProSent S V [7]s-V [8]ProSent [9]ProSent Voc PredCmpl (BE) [10]S PredCmpl (BE) [11]Adv V Goal [12]Voc S s-V [13]ProSent [14]QTime S V [15]PredCmpl (BE) [16]Voc S Cir_s V $DO_{partitive}$ s-V Pur_d (where Cir_s = [S V]; Pur_d = [S V]) [17]Sim DO s-

it. [17]Also bring manioc for me to eat. [18]I will go hunting so we can eat meat. [19]Father: Let's go by trail. [20]Daughter: No, the trail is bad. [21]Let's go by canoe. [22]Father: OK let's go. [23]Daughter, carry the basket.

[24]Narrator: Then they went to cultivate the field. [25]Then when they arrived at the field, one of the women said, "Is this where I cultivate?" [26]Father: Yes, cultivate that place. [27]Aunt or Daughter: I will cultivate here. [28]Daughter:

tsíva-co [o llééne-ki]. [17]Té-hdu-re baajúrí
bringImp-impl I eat-pur that-<like>-only manioc

tsíva-co [o májcho-ki]. [18]Ó llííñájáá-te-é-h
bringImp-impl I eat-pur I hunt-go.do-fut-<t>

me dóó-kií." [19]Father: Métsu juuvá-rí-ye."
SAP eat(meat)-pur let's.go trail-oblIn-only

[20]Daughter: Tsáhaá, néhní(h) juúva. [21]Métsu
no bad trail let's.go

mɨɨne-rí-yé me péé-kií. [22]Father: Juúju, métsu.
canoe-oblIn-only SAP go-pur ok let's.go

[23]Wáha-j, úverújtsí piíchu.
daughter-voc basket carryImp

[24]Narrator: Aa-né-vá-a péé-me [úmɨhe
thm-<ø>-rpt-rem go-<AnPl> field

i ájcyo-ki]. [25]Aa-mé-vá-a [té-pallí-vú
self cultivate-pur thm-<AnPl>-rpt-rem that-<disk>-goal

úje-té-náa] tsáá-pille néé-hi: "¿A í-chi
arrive-go.do-while one-<SgF> say-<t> y/n this-<place>

ó ájcyo-ó-hi?" [26]Father: Ée, é-tsií
I cultivate-fut-<t> yes that-<place>

d-ajcyo. [27]Aunt or Daughter: Í-chi ó
youImp-cultivate this-<place> I

ájcyo-ó-hi. [28]Daughter: Méhe-j, úvérujtsí-vú
cultivate-fut-<t> aunty-voc basket-goal

V Pur_d (where Pur_d = [S V]) [18]S V Pur_d (where Pur_d = [s-V]) [19]V Instr (where Instr = "the trail" [20]Neg PredCmpl (BE) S [21]V Instr Pur [22]ProSent V [23]Voc DO s-V

[24]Link V-s Pur_s (where Pur_s = [DO V]) [25]$<\text{S}_i>$ Cir_d S V: "$\text{Q}_{y/n}$ Goal DO S V" (where Cir_d = [ø_i Goal V]) [26]ProSent Loc s-V [27]Loc S V [28]Voc Goal_{theme} DO_{recip} s-V Pur_d (where Pur_d = [DO S

o-ke d-aacu [baajúrí o újcu-ki]. [29]Father:
I-objAn youImp-give manioc I get-pur

Juúju, áyu(h) éh-du-né-re muha má
ok already that-<like>-<ø>-only we SAP

ajcyó-hi. [30]Daughter: Cudsɨ ó újcu-té-h
cultivate-<t> pineapple I get-go.do-<t>

me tsájtye-ki." [31]Father: Ovíi péjco-re
SAP take-pur wait night-only

mé cáája-á-h [mátsájca me bájtso-ki].
SAP make.hills-fut-<t> peanuts SAP plant-pur

[32]Daughter: Áyu(h), metsu meh já-vu.
ready let's.go SAP house-goal

[33]Tsúúca nííjya-ba tsáá-hií. [34]Cuuvéh-ré-juco
already rain-<liquid> come-<t> dark-only-focus

teé-ne. [35]Father: Wáha-j, úverújtsí tsiva
that-<ø> daughter-voc basket bringImp

me péé-kií. [36]Daughter: Ovíi mútsɨ́ɨ́tsɨ-ba
SAP go-pur wait caimito-<liquid>

o llééne-ki. [37]Father: Métsu. [38]Nííjya-ba
I eat-pur let's rain-<liquid>

tsá-jucóó-hi.
come-now-<t>

[39]Narrator: Aa-mé-vá-a pé-jucóó-h
thm-<AnPl>-rpt-rem go-now-<t>

Aunty, give me a basket so I can get manioc. [29]Father: OK, that's all we will cultivate now. [30]Daughter: I'm going to get pineapple so we can take them. [31]Father: Wait and we will make hills tomorrow so we can plant peanuts. [32]OK, let's go to our house. [33]Already rain is coming. [34]It is getting dark. [35]Father: Daughter, bring the basket so we can go. [36]Wait so I can eat a caimito fruit. [37]Father: Let's go. [38]Rain is coming.

[39]Narrator: Then they went to their house.

V]) [29]ProSent Adv Sim S s-V [30]DO S V Pur$_d$ (where Pur$_d$ = [s-V]) [31]ProSent Time s-V Pur$_s$ (where Pur$_s$ = [DO s-V]) [32]ProSent V Goal [33]Adv S V [34]PredCmpl || S [35]Voc DO V Pur$_d$ (where Pur$_d$ = [s-V]) [36]ProSent DO S V [37]V [38]S V (Note contrast: *tsá-jucóóh* versus *tsáá-hií* in 33.)

[40]The chief said to them, "Are you coming now?" [41]Group: Yes we are coming now. [42]Father: Son, we brought a pineapple for you to eat. [43]Son: OK. [44a]Wait I'll eat it. [44b]I shot a partridge and a spotted cavy for us to eat. [45]Sis, did you bring manioc? [46]Yes, wait we eat it. [47]Father: Daughter have you already cooked the manioc? [48]Sister: Yes, hurry come eat. [49]Uncle, hurry come eat. [50]Uncle: OK. Give me a manioc to eat. [51]Uncle: Also give me a piece

ih jyá-vu. [40]Áa-me-ké-vá-a
self house-goal thm-<AnPl>-objAn-rpt-rem

ávyéju-ube néé-hi: "¿A ámuha me
reign-<SgM> say-<t> y/n you.Pl) SAP

tsá-jucóó-hi?" [41]Group: Éée, muha me
come-now-<t> yes we.ex SAP

tsá-jucóó-hi. [42]Father: Llíhi-j, muha mé tsivá-h
come-now-<t> son-voc we.ex SAP bring-<t>

cúdsɨ-ha [u lléene-ki]. [43]Son:
pineapples-<pineapple> you eat-pur

Juújuj. [44a]Óvíi, o lléene-j. [44b]Ó añú-h
ok wait I eat-voc I shoot-<t>

[tojpá-u-kee, tájcu-kee] [éh-du-me
partridge-sg-objAn cavy-objAn that-<like>-<AnPl>

me dóó-kií]. [45]Muú-lle-j, ?a ú
SAP eat-pur age.mate-<SgF>-voc y/n you

tsivá-h baajúri? [46]Daughter: Éée, óvii me
bring-<t> manioc yes wait SAP

májcho-j. [47]Father: Wáha-j, ¿a tsúúca
eat-voc daughter-voc y/n already

baajúri u tú-jucóó-hi? [48]Sister: Éée, mé
manioc you cook-now-<t> yes SAP

majchó-va-ju-j." [49]Naáni-j, majchó-va-ju-j.
eat-come.do-quick-voc uncle-voc eatImp-come.do-quick-voc

[50]Uncle: Juújuj. O-ke d-aacu tsá-u-vu
ok I-objAn youImp-give one-<sphere>-goal

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[39]S V Goal [40]O S V: "$Q_{y/n}$ S V" [41]ProSent S s-V [42]Voc S s-V DO Pur_d (where Pur_d = [S V]) [43]ProSent [44a]ProSent S V [44b]S V DO (where DO = [N N]; Cir_d = [Sim s-V]; the DO is the conjunction of two nouns; *me dóó-kií* is an example of final L becoming L.H) [45]Voc $Q_{y/n}$ S V DO [46]ProSent ProSent s-V [47]Voc $Q_{y/n}$ Adv DO S V [48]ProSent s-V [49]Voc s-V [50]ProSent DO_{recip} V $Goal_{theme}$ Pur_d (where

[o májcho-ki]. [51]Té-hdu-re [tojpá-u
I eat-pur that-<like>-only partridge-sg

éh-ne]-vu o-ke d-aacu [baajúri-ú-vú
that-<ø>-goal I-objAn youImp-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]Oviíi
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 íjcya.
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

of the partridge so I can eat it together with the manioc.
[52]Daughter: OK. [53]Uncle: OK that's enough.
[54]Thanks.
[55]Uncle and Aunt: We are going now.
[56]Chief: OK you may go to go to sleep.
[57]Wait, tomorrow we will make hills.
[58]Uncle and Aunt: OK, you may stay.
[59]Narrator: Then they went to their house.

Pur$_d$ = [S V]) [51]Sim Goal$_{theme}$ DO$_{recip}$ s-V Pur$_d$ (where Pur$_d$ = [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

[59]Link Adv V Goal

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.

[1]Wájyamúú-né | [[ávyétá ɨhnáhó(h)]
clothes-pl very strong

ííñu-vá]-né tujkénú mé nijtyú-h
earth-come.do-<ø> first SAP wash-<t>

íévé-jpácyo-rí-yé-i [nijtyú-wa-tu
free-<liquid>-oblIn-only-PT wash-<slab>-sou

pícyoo-tú-ne]. [2][Áá-né boone] botsíi
put-neg-<n> thm-<ø> after finally

mé picyóó-h hállú-vú-é-ne-ri. [3]Aa-ne
SAP put-<t> top-goal-per-<ø>-oblIn thm-<ø>

mé wáúmi-ivyé-h pápihchúú-ijyú-vá
SAP repeat-sIn-<t> three-<day>-pl

bɨwáá-ne-rí-ye. [4]Aa-ne mé picyóó-h
again-<ø>-oblIn-only thm-<ø> SAP put-<t>

tsa-tsíh-vú ɨ́ tsɨtsɨ́-já-hjɨ; áá-ne-tu
one-<place>-goal self white-<shelter>-pl thm-<ø>-sou

... tsa-tsí-ú óónóva-já-hjɨ.
one-<place>-goal colored-<shelter>-pl

[5]Aa-ne tsa-íjyú mé nijtyú-h tee-ne
thm-<ø> one-<day> SAP wash-<t> that-<ø>

ɨ́ tsɨtsɨ́ɨ́-ne; té-hdu-re tsa-íjyú
self white-<ø> that-<like>-only one-<day>

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[1]DO | DO* Adv s-V Instr Instr (where DO* = [DO$_{partitive}$ s-V]) [2]TempP Adv s-V Instr*. (Note: Instr* has double case marking.) [3]Link s-V Adv Instr [4]Link s-V Goal DO; Link ... Goal DO. (Note the ellipsis.) [5]Link Time s-V DO | DO; Sim Time ... DO. (Note the ellipsis.) [6a]<DO$_i$> DO^1 V; DO^1 = [[DO^2 V]-head]; DO^2 = [[ø$_i$ s V]-head] [6b]DO | DO Goal* s-V. (Note: Goal* is marked with ablative.)

óónová-ne. [6a]Aa-ne [[me dótsu-hcú]-né
colored-<ø> thm-<ø> SAP squeeze-mTr-<ø>

me tsíva]-ne mé picyóó-hi. [6b]Pa-ja
SAP bring-<ø> SAP put-<t> all-<shelter>

néé-ja pá-ihcyú-tú mé picyóó-hi.
say-<shelter> all-<frame>-sou SAP put-<t>

[7a]Áá-ne-tu tsíh-dyu-re ɨɨva-já-hjɨ
thm-<ø>-sou other-<like>-only different-<shelter>-pl

mé picyóó-hi. [7b]Móóhó-u-tu mé
SAP put-<t> vine-<sphere>-sou SAP

ɨhdo-tsó-h úmé-he-wáá-ne-tu. [8][Aa-ne
bite-caus-<t> tree-<tree>-<slab>-pl-sou thm-<ø>

dáárɨ-té-cooca] me újcu-ne mé bewá-nú-hi.
dry-go.do-when SAP get-<ø> SAP fold-do-<t>

[9][Aa-ne me béwá-nú-cooca] tsa-tsíh-vú
thm-<ø> SAP fold-do-when one-<place>-goal

tsa-né-e-já-hjí mé picyóó-hi.
one-<ø>-per-<shelter>-pl SAP put-<t>

[10]Áá-ne-tu íh-dyú-e-né-ré í
thm-<ø>-sou this-<like>-per-<ø>-only self

vahjá-ba-já-hjɨ mé picyóó-hi. [11]Aa-ne
torn-mIn-<shelter>-pl SAP put-<t> thm-<ø>

[tsáávaná-háñé me béwá-nú-cooca] tsá(h) me
blanket-pl SAP fold-do-when no SAP

pícyoo-tú í úniu páñe-vu.
put-neg self side inside-goal

[6a]We squeeze them, bringing them, then hang them. [6b]We put all the one-piece clothes onto hangers. [7a]By contrast, the other kinds of clothes we hang on the clothes line. [7b]We pin them to a line with clothespins. [8]When they are dry, getting them, we fold them. [9]When we fold them, we put the same kind of clothes in one place. [10]We put the torn clothes by themselves. [11]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 clothespins is strange; it may be because the clothes hang from them as well as from the clothesline. [8]Time Cir_s s-V (where Time = [S V] and Cir_s = [s-V] [9]Time Goal DO s-V (where Time = [DO s-V]) [10]Link $\text{DO}_{partitive}$ Adv DO s-V (The DO may be appositive to $\text{DO}_{partitive}$; the meaning would be "from the clothes, those that are torn.") [11]Link Cir_s Neg s-V DO Goal (where Cir_s = [DO s-V])

[12]Now, when we set the table, we first put on the dishes. [13]After that, we put the cups on the right side. [14]Also we put a fork on the left side. [15]By contrast, we put a knife and a spoon on the right side. [16]Then we put the food in the middle. [17]Then, after the meal, we clear the dishes. [18]Then after that we gather the crumbs left from the food and put it in the garbage. [19]Then finally after that

[12]Áá-ne-tu [bohtá-mú méétsá-vu me
thm-<ø>-sou dish-pl table-goal SAP

pícyóó-cooca] mé picyóó-h tujkénú bohtá-mu.
put-when SAP put-<t> first dish-pl

[13][Áá-né booné-tú] mé picyóó-h cané-cóó-né
thm-<ø> after-sou SAP put-<t> cup-<cup>-pl

[ɨ́mɨá nejcú-vu]. [14]Té-hdu-re mé picyóó-h
right side-goal that-<like>-only SAP put-<t>

deíjyú-wa-cóóhá [nání ñejcú-vu]. [15]Áá-ne-tu
spoon-<slab>-<fork> left side-goal thm-<ø>-sou

[ɨ́mɨá nejcú-vú] mé picyóó-h nɨɨtsú-wá-wuu,
right side-goal SAP put-<t> cut-<slab>-dim

deíjyu-waa éh-du-ne. [16]Aa-ne pɨ́ɨné-vu
spoon-<slab> that-<like>-<ø> thm-<ø> middle-goal

mé picyóó-h majchó-háñe. [17]Aa-ne [majchó
SAP put-<t> food-pl thm-<ø> food

boone] bohtá-mú mé ujcú-hi. [18][Áá-né boone]
after dish-pl SAP get-<t> thm-<ø> after

[[[tee-ne majchó] waahyé-né] cóevá-né me
that-<ø> food pieces-pl be.leftover-<ø> SAP

píhjyú-cú-ne] mé picyóó-h [ujpá pañé-vu].
gather-mTr-<event> SAP put-<t> garbage inside-goal

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[12]Link Time s-V Adv DO (where Time = [DO Goal s-V]) [13]TempP s-V DO Goal [14]Sim s-V DO Goal [15]Link Goal s-V DO (where DO = [N N Sum]) [16]Link Goal s-V DO [17]Link TempP DO s-V. (Time is literally "after the food"; it is understood as "after having eaten the food.") [18]TempP Cir_s s-V Goal *cóevá-né* 'leftover-<ø>' is the direct object of *me píhjyúcú-ne* 'we gather'. If *cóevá-né* 'leftover-<ø>' is taken as a noun, it is in either an appositive or in genitive construction with the preceding NP, so either Cir_s = [DO | DO s-V] or Cir_s = [[N @ N] s-V]. Another possibility is that *tee-ne majchó waahyé-né* is the subject of *cóevá-* 'be left over', so Cir_s = [DO s-V] where DO

[19]Áá-né boone botsíi mé paacyú-h ímí-ñe-úvu.
thm-<ø> after finally SAP wipe-<t> good-adv-max

[20]Áá-ne-tu [tee-ne bohtá-mú me
thm-<ø>-sou that-<ø> dish-pl SAP

níjtyú-cooca] tujkénú mé picyóó-h [badééjá
wash-when first SAP put-<t> pan

pañé-vú] állóóco-jpácyo. [21][Á-jpacyó
inside-goal hot-<liquid> thm-<liquid>

pañé-vú] tsii-ñe mé cahpíó-h tsúúco-jpácyó
inside-goal other-<ø> SAP pour.out-<t> cold-<liquid>

[té-jpacyo áyá-né-wu i dyáɬhco-ki].
that-<liquid> little-<ø>-dim self cool-pur

[22]Á-jpacyó-rí botsíi mé nijtyú-hi.
thm-<liquid>-oblIn finally SAP wash-<t>

[23]Tujkénú í imí-ñé-hjɬ pá-ne-ere mé
first self good-<ø>-pl all-<ø>-only SAP

nijtyú-hi. [24]Aa-ne [[tsɬɬ-jɬ pañé-vú]
wash-<t> thm-<ø> other-<disk> inside-goal

me ɬɬné-tsó-ne] mé nijtyú-h tútácó-ihlló-né
SAP move-caus-<event> SAP wash-<t> cook-<pot>-pl

[mú-hdu-ná í ñehní-ñé-hjɬ íjcya-ne].
how-<like>-<ø> self bad-<ø>-pl be-<ø>

[25]Tsá(h) múú-ne néhní-jpácyo-ri me níjtyu-tú
no WH-<ø> bad-<liquid>-oblIn SAP wash-neg

í imí-ñé-hjɬ. [26]Aa-ne [pá-ne-ere
self good-<ø>-pl thm-<ø> all-<ø>-only

we wipe it thoroughly.

[20]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

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= [S V]. [19]TempP Adv s-V Adv; *ímí-ñe-úvu* is a degree adverb.

[20]Link Cir_s Adv s-V Goal DO (where Cir_s = [DO s-V]) [21]Goal DO_i s-V DO_i Pur_d (where Pur_d = [S AdvDeg V]; note that the S of the purpose clause refers to the hot water of the preceding sentence, not to the cold water of the main clause. The two DOs in the main clause are appositive (despite not being adjacent). [22]Instr Adv s-V [23]Time DO | DO s-V [24]Link Cir_s s-V DO | DO^* (where Cir_s = [Goal s-V]; DO^* =

me ímivyé-dú] [[tsɨ́ɨ́-jɨ́ 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] botsíi
scald-<event> SAP leave-sIn-caus-<like> finally

me páácyu-ne mé picyóó-hi. [27]Aa-ne
SAP wipe-<ø> SAP put-<t> thm-<ø>

tsa-tsíh-vú tsa-né-e-ne mé picyóó-h,
one-<place>-goal one-<ø>-per-<ø> SAP put-<t>

bohtá-mú: tsa-tsíh-vú í mityá-jɨ́-hjɨ,
dish-pl one-<place>-goal self much-<disk>-pl

té-hdu-re í ayá-jɨ́-hjɨ́ tsa-tsíh-vu.
that-<like>-only self small-<disk>-pl one-<place>-goal

[28]Cané-cóó-né tsa-tsíh-vú mé picyóó-hi.
cup-<cup>-pl one-<place>-goal SAP put-<t>

[29]Té-hdu-re [deíjyu-wáá-ne, nɨɨtsú-wá-wuú-ne,
that-<like>-only spoon-<slab>-pl cut-<slab>-dim-pl

deíjyú-wá-coohá-ñe, [[ɨɨ-ná tsa-né-e-ne]
spoon-<slab>-<fork>-pl what-<ø> one-<ø>-per-<ø>

íjcya]-ne] tsa-tsɨ́-hjɨ-vu mé picyóó-hi.
be-<ø> one-<place>-pl-goal SAP put-<t>

[30]Áá-ne-tu me llíjyáá-cooca múú-ne
thm-<ø>-sou SAP sweep-when WH-pl

mé llijyáá-h pɨ́rú-ne-úvú [wááhye-ne
SAP sweep-<t> complete-adv-max crumb-pl

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.

[30]Then, when we sweep, we sweep thoroughly, even the crumbs in

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[S(quantifier) PredCmpl V]) [25]Neg S Instr s-V DO [26]Link Cir^1_s Cir^2 Adv Cir^3_s s-V (where Cir^1_s = [DO s-V]; Cir^2_s = [Goal ø s-V]; Cir^3_s = [DO s-V], DO = [Sou DO s-V]). Note the use of *-du* 'upon completion' at the end of Cir^3_s [27]Link Goal DO_i s-V DO_i: Goal DO, Sim Goal DO. *tsa-né-e-ne* and *bohtá-mú* are appositive, meaning 'each dish.' [28]DO Goal s-V [29]Sim DO Goal s-V (where DO = [N N N [PredCmpl V]])

[30]Link Cir_s S s-V AdvDeg DO (where Cir_s = [s-V]; DO = [S Loc

té-tojcó-jɨ́ pañe]. [31]Tsá(h) tsa-ne me
that-<corner>-pl inside no one-<ø> SAP

cóévá-tso-tú. [32]Aa-ne tsa-tsíh-vú bɨ́ɨva me
remain-caus-neg thm-<ø> one-<place>-goal trash SAP

píhjyu-cú-né mé picyóó-h ráátá-hóójá pañé-vú
gather-mTr-<ø> SAP put-<t> can-<can> inside-goal

me wáágóo-ki.
SAP throw.out-pur

[33]Áá-ne-tu tsɨ́ɨ́méne-ke me téhmé-cooca
thm-<ø>-sou child-objAn SAP watch-when

mé tehmé-h ímí-ñe-úvu. [34]Tsá(h) me
SAP watch-<t> good-adv-max no SAP

táá-tso-tú. [35]Tsá(h) me wápáá-jco-tú.
cry-caus-neg no SAP hit-mTr-neg

[36]Tsá(h) néhní-ñé-hjɨ-vu ma ájcu-tú tsɨ́ɨ́méne-ke.
no bad-<ø>-pl-goal SAP give-neg child-objAn

[37]Í-llu-re mé ɨ́ɨcu-tsó-h ímí-ñe-úvú-re.
This-<like>-only SAP play-caus-<t> good-adv-max-only

[38]Áá-ne-tu [majcho me méénú-cooca]
thm-<ø>-sou food SAP make-when

[tsí-emé-né [cúdsɨ-há dɨ́ɨva-ne]
other-similar-<ø> pineapple-<pineapple> likeness-pl

me ɨ́htú-í-cyooca] tujkénú mé nijtyú-h
SAP peel-fut-when first SAP wash-<t>

the corners. [31]We don't allow any to remain. [32]Then we gather together the trash and put it in a can to throw out.

[33]When we watch a child, we watch him very well. [34]We do not make him cry. [35]We do not hit him. [36]We do not give the child anything dirty. [37]We just help him to play very nicely.

[38]When we make food and when we are going to peel something like a pineapple we first wash it in cold water. [39]Then fi-

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(BE)]; *pɨ́rú-ne-úvú* is a degree adverb. [31]Neg DO s-V [32]Link DO_i s-V Goal Pur_s (where DO = [Goal DO_i s-V]; Pur_s = [$ø_i$ s-V])

[33]Link Cir_s s-V AdvDeg (where Cir_s = [DO s-V]) *ímí-ñe-úvu* is a manner adverb [34]Neg s-V [35]Neg s-V [36]Neg $Goal_{theme}$ s-V DO_{recip} [37]Sim s-V Adv; *ímí-ñe-úvú-re* is a manner adverb.

[38]Link $Time^1_s$ $Time^2_s$ Adv s-V Instr (where $Time^1_s$ = [DO s-V]; $Time^2_s$ = [DO | DO s-V]) [39]Link Adv s-V [40]Link Adv s-V DO (where DO = [s-V]). Note *-juco*: the Bora peel the pineapple before dividing it so

nú-jpácyo-ri. [39]Áá-ne botsíi mé
water-<liquid>-oblIn thm-<ø> finally SAP

pɨ́tséu-hcú-hi. [40]Aa-ne botsíi mé ɨhtú-h me
divide-sTr-<t> thm-<ø> finally SAP peel-<t> SAP

pɨ́tséu-hcú-ne-ré-juco. [41][Aa-ne bohtá-jɨ́
divide-sTr-<ø>-only-focus thm-<ø> dish-<disk>

pañé-vú me pícyoo]-ne botsíi mé picyóó-h
inside-goal SAP put-<ø> finally SAP put-<t>

méétsá-vuú.
table-goal.

nally we divide it. [40]Then finally we peel it after we have divided it. [41]Then after putting it in a dish we finally put it on the table.

[42]Áá-ne-tu [[oona me ɨ́htu]-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 píñaó]-né
thm-<ø> that-<ø> done-when SAP remove-<ø>

té-jpacyo me wáágóó-ne] [[té-né-hjɨ́
that-<liquid> SAP throw.out-<event> that-<ø>-pl

tálliyíjcyo-ri pá-llijyu me tállíyi-jcyó]-né
grinder-oblIn all-<powder> SAP grind-mTr-<ø>

[bohtá-jɨ́ pañé-vú] me pícyoo]-ne botsíi
dish-<disk> inside-goal SAP put-<ø> finally

méétsá-vu mé picyóó-hi. [44]Pá-ne-ere
table-goal SAP put-<t> all-<ø>-only

tsí-emé-né me méénú-í-cyooca tujkénú
other-similar-<ø> SAP make-fut-when first

[42]Then after having peeled, divided and washed taro we cook it. [43]Then when that is done we take it off the fire, we throw out the water, grind up the other in the grinder and, putting it in a dish, we put it on the table. [44]Whenever we are going to make something, we first

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this is surprising information. [41]Link Cir_s Adv s-V Goal (where Cir_s = [Goal s-V]; this could also be regarded as the direct object of the main clause)

[42]Link Cir_s^1 Cir_s^2 Cir_s^3 s-V (where Cir_s^1 = [DO_i s-V]; Cir_s^2 = [ø_i s-V], Cir_s^3 = [ø_i s-V]) [43]Link Time Cir_s^1 Cir_s^2 Cir_s^3 Cir_s^4 Adv Goal V (where Time = [S_i V]; Cir_s^1 = [ø_i s-V]; Cir_s^2 = [DO s-V]; Cir_s^3 = [DO_i DO Result s-V]; Cir_s^4 = [Goal ø_i s-V]) [44]Cir_s Adv s-V (where Cir_s = [DO

mé nijtyú-hi. [45][Té-hdu-re baajúrí me
SAP wash-<t> that-<like>-only manioc SAP

ɨhtu]-ne mé nijtyú-hi. [46][Aa-ne me
peel-<ø> SAP wash-<t> thm-<ø> SAP

wáwa-jcó]-né me túú-hi. [47][[Hééco me
cut.up-mTr-<ø> SAP cook-<t> meat SAP

wárɨ-hcó-cooca] [aríína-tu tujkénú me pícyoo]-ne]
fry-mTr-when flour-sou first SAP put-<ø>

mé wárɨhcó-hi.
SAP fry-<t>

[48]Áá-ne-tu [ado me méénú-cooca] mé
thm-<ø>-sou drink SAP make-when SAP

ujcú-h nú-jpacyo eevé-ri. [49][Á-jpacyó
get-<t> water-<liquid> measure-oblIn thm-<liquid>

pañé-vú] mé picyóó-h tee-ne [ɨɨ-ná me
inside-goal SAP put-<t> that-<ø> what-<ø> SAP

pícyoo-í]-ñe. [50][Aa-ne me bóri-jcyó]-né mé
put-fut-<ø> thm-<ø> SAP stir-mTr-<ø> SAP

ímu-jtsó-hi. [51]Aa-ne botsíi mé picyóó-h
sweet-caus-<t> thm-<ø> finally SAP put-<t>

méétsá-vuú.
table-goal

wash it. [45]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]) [45]Sim [DO s-V] s-V [46]DO V; DO = [[DO s-V]-head] [47]Time DO s-V (where Time = [DO* s-V], DO = [DO$_{partitive}$ Adv s-V])
[48]Link Time s-V DO Instr (where Time = [DO s-V]) [49]Goal s-V DO | DO*; DO* = [[DO s-V]-head] [50]Link DO s-V (where DO = [s-V]) [51]Link Adv s-V Goal

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