Moógatí, the language of Nuróng

M.M.N.H.

A descriptive grammar

2018

Dedicated to alev, my lovely lizard

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Glossing abbreviations

Gloss	*Definition*
∅	null
C#	semantic class #
F#	frame #
D#	demonstrative #
STN	standing
SIT	sitting
LNG	lying
HND	handled
PTL	partial
HOL	hollow
FLU	fluid
ALI	alienable
NAL	inalienable
SG	singular
DU	dual
PL	plural
ASC	associative
PAS	passive
ACT	active
ATP	antipassive
PHY	physical
COM	communicative
PST	posture
FIN	finite
PRT	participle
POS	positive
NEG	negative
CNV	converb
CNJ	conjunct
DSJ	disjunct
ANR	anterior
PSR	posterior

IMM	immediate
INC	inchoative
CES	cessative
CAU	causative
CNS	consequential
CNC	concurrent
INT	interruptive
EXP	expectative
FRU	frustrative
CNE	concessive
CND	conditional
RES	resultative
SIM	similative
PRO	progressive
IMP	imperfective
PRF	perfective
STA	stative
REA	realis
IRR	irrealis
COL	collective
DST	distinctive
MOM	momentane
MAN	manifold
PRS	personal
FAC	factual
TES	testimonial
EGO	ego
RFL	reflexive
IAC	inverse actor
IUN	inverse undergoer
∅	null

0 | Introduction

"ma rec lang! ma rec lang!"

— *alev*

The purpose of this book is to investigate and record the Moógatí language in as much detail as possible.

0.1 | Overview

In Ch. 0, we introduce this book, the Moógatí language documented within, and all sorts of cultural and social details pertaining to the speakers of Moógatí. In Chs. 1 and 2, we investigate the phonological inventory and processes, both segmental and suprasegmental. In Ch. 3, we discuss the native script and its conventions, as well as transcription of the language in other scripts. In Ch. 4, we discuss the structure of constituents and how they affect each other. In Ch. 5, we discuss discourse and discourse-information structure, as well as clauses, speech acts, and how they interact with each other. In Chs. 6 to 14, we discuss words and their structure, as well as various specialized sets of words. In Ch. 15, we discuss word formation and processes. In Ch. 16, we discuss names (titles, terms of address, etc.) and their conventions and structure. In Ch. 17, we discuss the various forms and transformations of communication. In App. A, we give a dictionary of roots, and the conventions and layout of the dictionary. In App. B, we further detail and diagram the semantic divisions of certain words. In App. C, we give various example sentences.

0.2 | Conventions

In this book, we shall use pink text for Moógatí words, whether they be in orthographic transcription or non-bracketed phonemic transcription (common). Forward slashes (/example/) are used for phonemic transcription, square brackets ([example]) are used for phonetic transcription, pink-text pipes (|example|) are used for morphemic transcription (except in glosses), and pink-text angle brackets (⟨example⟩) are used for orthographic transcription. Underlined text is used for translations, sans-serif text is used for important terms, and *italicized* text is used for normal emphasis. "Scare quotes" are used for non-standard, ironic, or otherwise deviant usages of terms.

Glosses are structured as follows:

(1) phonemic transcription
⟨native script⟩
morphemic transcription (object language)
morphemic transcription (metalanguage)
translation
LIT. 'optional literal translation'

In morphemic transcription, predicates and predicate components are shown in blue, arguments and argument components are shown in red, and particles are shown in green.

Ungrammatical, unfelicitous, or otherwise "bad" glosses are preceded by an asterisk (*) on each line.

0.3 | External history

The Moógatí (⟨  ⟩ boógakí [mòóɰàtí] speech) language is a constructed language (conlang) created by me, Mareck (M.M.N.H.). It is a modified version of lang8 (hence being designated as lang8.1), also called Moógatí. Its (previous) primary goal is to be an almost-completely isolating, monocategorial, associational (IMA) language, defined as follows (Gil 2005a,b):

- morphologically isolating : no word-internal morphological structure
- syntactically monocategorial : no distinct syntactic categories
- semantically associational : no distinct construction-specific rules of semantic interpretation; compositional semantics relying exclusively on the association operator

In lang8, we followed these definitions very strictly; in this language, we eschew all three points to form a more morphologically rich language. Thus, the primary goal has shifted: we aim to construct a cohesive, IMA-like language; this does not entail strict adherence to the above criteria, and in fact we have almost entirely eschewed the aforementioned criteria in favor of simply constructing a cohesive language.

0.4 | Internal history

TODO all of this

0.4.1 | People

0.4.2 | Place

Nuróng (⟨  ⟩ guróg [ɲùɾɔ́ŋ]) is

0.4.3 | Beliefs

0.4.4 | Practices

0.4.5 | Dialects

1 | Phonology

> "[A]coustic phoneticians…just content themselves to watch, like many Peeping Toms. If you know what I mean."
>
> — *Luciano Canepari*

In this chapter and the following two chapters we explore the sounds and related phenomena of Moógatí. This includes abstract (phonemic) and concrete (phonetic) forms, as well as suprasegmental units and orthographic conventions. We shall use (a modified) ^{off}IPA for phonemic transcription, and ^{can}IPA for phonetic transcription.

1.1 | Consonants

There are nine phonemic consonants:

	Labial		*Lingual*		*Glottal*	
Voiceless plosive	p	[p ɸ pˀ]	k	[k t kˀ]	ʔ	[ʔ]
Aspirated plosive			kʰ	[kxh tsh x ʦ k]		
Voiced plosive	b	[b β m ~bʙ]	g	[g ʤ ɯ ɲ ɾ ŋ]		
Continuant	(þ	[tʀ])	ɾ	[ɾ j d l (r)]	h	[h s]

Figure 1.1: Consonant phonemes & taxophones (pulmonic)

There are also a large inventory of dejective ("click") consonants:

	Dental		*Alveolar*		*Lateral*	
Tenuis	ɻ	[ᵸtθ]	ᶝ	[ᵸʃ]	ʖ	[ᵸtɬ]
Aspirated	ɻʰ	[ᵸtθh]	ᶝʰ	[ᵸʃh]	ʖʰ	[ᵸtɬh]
Voiced	ᵍɻ	[ᵸdð ᶻdð]	ᵍᶝ	[ᵸɖ ᶻɖ]	ᵍʖ	[ᵸdɮ ᶻdɮ]
Glottalized	ɻˀ	[ᵸtθˀ ᶻtθˀ]	ᶝˀ	[ᵸʃˀ ᶻʃˀ]	ʖˀ	[ᵸtɬˀ ᶻtɬˀ]

Figure 1.2: Consonant phonemes & taxophones (dejective)

Most notable about this inventory is the size: it is very small, boasting only eight common contrastive segments and a handful of uncommon (but still contrastive) segments. Not surprsingly, there are many taxophones of phonemes. We have chosen an analysis that *phonemically* lacks both nasal consonants and coronal obstruents. Phonetically, however, other consonants make up for these phonemic gaps.

The taxophone [ɾ] of /ɾ/ occurs in angry and emphatic speech.

The complex segment /þ/ and the large inventory of dejectives occur mainly in ideophones (and, thus, are called ideophonemes), but also have significant distribution in basic vocabulary items such as ɻeɻe breast, milk. Ideophonemes do not cluster and do not occur in the syllable coda. Additionally, /ᶝ* ʖ*/ (i.e., all alveolar and lateral clicks) do not occur before /i/.

1.1.1 | Consonant taxophony

- /p b/ surface as [ɸ β] intervocalically, except before /i/ when it undergoes frication
- /b/ surfaces as [~b̆ʙ] word-initially before /u/
- /k kʰ g ɾ h/ surface as [t ʦh ʤ j s] before /i/ (except word-initially in the case of /g/; except when in a cluster in the case of /ɾ/)
- /kʰ g/ surface as [x ɰ̠] before /a/, except in clusters (and except word-initially in the case of /g/)
- /p b kʰ g/ do *not* surface as [ɸ β x ɰ̠] if the preceding syllable onset contains an identical [ɸ β x ɰ̠] (unless the preceding syllable onset forms a cluster)
- /b g ɾ/ surface as [m ɳ ɖ] word-initially (except before /u/ in the case of /b/; except before /i/ in the case of /ɾ/); /p k kʰ b g ɾ/ surface as [p̚ k̚ k m ŋ l̩] word-finally
- /b g ɾ/ surface as [m ŋ l] in non-geminate clusters (§ 1.3.2); /g/ surfaces as [ɲ] adjacent to [t ʦh l s]
- /p k kʰ/ surface as [p̚ k̚ x] in clusters in which they are the first component, except before /ɾ ʁ h/ (and except when geminated in the case of /kʰ/)
- /k kʰ/ surface as [t ʦ] in clusters before /i/
- /bb gg ɾɾ/ surface as [mb ŋg ll]; /kk kkʰ gg/ surface as [t̚t t̚ʦh ɲ̩ʤ] before /i/
- otherwise, /p k kʰ ʔ b g ɾ h/ surface as [p k kxh ʔ b g ɾ h]
- /ᶢɟ ᶢc ᶢʆ/ surface as [ǂdð ǂɖ ǂdɬ] word-initially
- /ɟˀ cˀ ʆˀ/ surface as [ǂtθˀ ǂʈˀ ǂtɬˀ] intervocalically
- otherwise, /ɟ c ʆ ɟʰ cʰ ʆʰ ᶢɟ ᶢc ᶢʆ ɟˀ cˀ ʆˀ/ surface as [ʇtθ ʇʈ ʇtɬ ʇtθh ʇʈh ʇtɬh ʇdð ʇɖ ʇdɬ ʇtθˀ ʇʈˀ ʇtɬˀ]

1.1.2 | Dialectal variations of consonants

- In some[*which?*] Northern dialects, [g ʤ ɰ̠ ŋ] map to [ħ ʒ ʕ ɲ][1]

1.2 | Vowels

There are five phonemic monophthongs and eight phonemic diphthongs:

[1] we obtained this data from some alleged Northerners passing through, who “spoke funny” according to the people with which we stayed

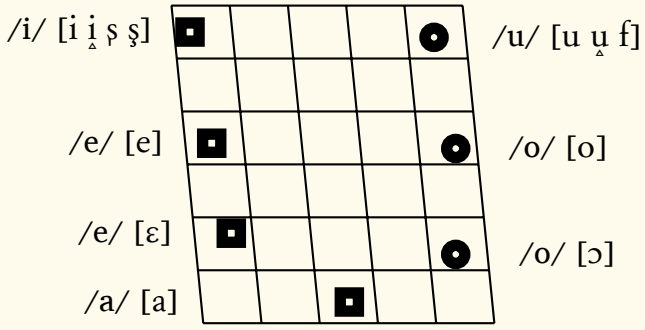


Figure 1.3: Vowel phonemes & taxophones

Diphthongs are as follows:

/ai au ae ao ei eu oi ou/
[aɪ aʊ ae ao ei̯ eʊ oɪ ou̯]

Unlike consonants, taxophony in vowels is much sparser. Additionally, the vowels themselves are fairly standard: five cardinal vowels and eight segmentable diphthongs. All vowels may occur as short (monomoraic) or long (bimoraic), and the diphthongs pattern as long vowels. Other vowel sequences undergo /ʔ/-insertion (§ 1.3.3).

1.2.1 | Vowel taxophony

- /e o/ surface as [ɛ ɔ] in closed syllables, and between a consonant and a voiceless consonant (in that order) /p k^h k ʔ h/
- /i u/ surface as [ɪ ʊ] in diphthongs
- atonic /i u/ surface as [i̯ u̯] between voiceless consonants, and between a voiceless consonant and a word boundary (in that order)
- atonic /i/ is further fricated to [ʂ] between non-lingual tenuis plosives, or between a non-lingual tenuis plosive and a word boundary (in that order); it surfaces as [ʂ] between a lingual tenuis plosive, or between a lingual tenuis plosive and a word boundary (in that order)
- atonic /u/ is further fricated to [f] between tenuis plosives, or between a tenuis plosive and a word boundary (in that order)
- all vowels are nasalized before nasal taxophones; due to the insignificance of this process, we choose to not overtly indicate this[2]

1.2.2 | Dialectal variations of vowels

- *???*

1.3 | Phonotactics

1.3.1 | Phonological profile

The profile of the phonological word is as follows:

[2] also due to not wanting to map the taxophones

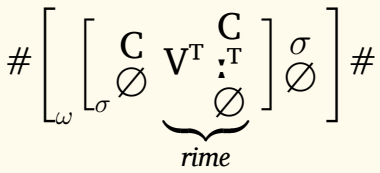


Figure 1.4: Phonological profile

Wherein:

- stacked components represent multiple options
- ω a phonological word
- σ a syllable
- C any consonant
- V^T any vowel; may carry tone (§ 2.4)
- $:^T$ vowel lengthening or a diphthong component; may also carry tone
- $\varnothing$ a null component

1.3.2 | Consonant clusters

Consonant clusters (which only occur word-medially) are as follows:

	p	k	k^h	ʔ	b	g	ɾ	h
p	pp	pk	pk^h	pʔ	pb	pg	pɾ	ph
k	kp	kk	kk^h	kʔ	kb	kg	kɾ	k^h
k^h	k^hp	k^hk	kk^h	$k^hʔ$	k^hb	k^hg	$k^hɾ$	h
ʔ	ʔp	ʔk	$ʔk^h$	ʔ	ʔb	ʔg	ʔɾ	ʔ
b	bp	bk	bk^h	bʔ	bb	bg	bɾ	bh
g	gp	gk	gk^h	gʔ	gb	gg	gɾ	gh
ɾ	ɾp	ɾk	$ɾk^h$	ɾʔ	ɾb	ɾg	ɾɾ	ɾh
h	hp	hk	hk^h	h	hb	hg	hɾ	h

Figure 1.5: Consonant clusters

Wherein blue entries denote cluster resolution; in the case that such a cluster occurs, it instead returns the corresponding entry.

1.3.3 | Restraints

All heterorganic (i.e., non-identical) vowel sequences as well as $V_1V_1V_2$ and $V_1V_2V_2$ undergo /ʔ/-insertion: an epenthetic /ʔ/ is inserted between the heterorganic vowels. In the case of $V_1V_1V_1$ (i.e., all the vowels are identical), /ʔ/ is inserted at the morpheme boundary/ies.

2 | Prosody

Prosody is the patterns of tone, intonation, stress, and other suprasegmental units, as well as how these interact with each other.

2.1 | Isochrony

Isochrony is the rhythmic division of utterances. The isochrony of Moógatí is moraically-timed, i.e., the duration of every mora (μ) is approximately equal. Moraic structure may be mapped as follows:

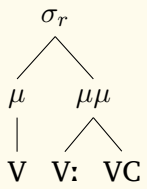


Figure 2.1: Moraic structure

Wherein a syllable rime (σ_r) may be monomoraic or bimoraic; a bimoraic rime may consist of a long vowel or a vowel-consonant sequence.

2.2 | Prosodic units

All utterances are divided into many levels of prosodic units.

The smallest unit is the mora, explained in the previous section. Above the moraic unit, there is the syllable (σ) and the prosodic foot (φ). The structure of a syllable is shown in § 1.3.1; A foot consists of exactly two syllables; foot grouping begins at the left edge (beginning) of a word. Any syllable which cannot be assigned to a foot (e.g., the final syllable in odd-syllable words) is a stranded syllable (ς).

When relevant, syllable and foots breaks will be indicated by ‹.› and ‹:›, respectively, in phonemic and phonetic transcription.

$$\left[_{\varphi}\ \left[_{\sigma_1}\ \text{k i}\ \right]\ \left[_{\sigma_2}\ \text{p i}\ \right]\ \right] \qquad \left[_{\varphi}\ \left[_{\sigma_1}\ \text{g u}\ \right]\ \left[_{\sigma_2}\ \text{b ó o}\ \right]\ \right]$$

$$\left[_{\varphi}\ \left[_{\sigma_1}\ \text{b o ó}\ \right]\ \left[_{\sigma_2}\ \text{g a}\ \right]\ \right]\ \left[_{\varsigma}\ \text{k í}\ \right]$$

Figure 2.2: Prosodic division

In colloquial speech, stranded syllables may be reduced, truncated, or dropped entirely.

2.3 | Stress

Stress is characterized by a slight increase in pitch, volume, and duration of the stressed syllable. Stress always falls on the heaviest leftmost syllable of the final foot of a word. Stress placement from the previous examples is as follows (indicated by an exclamation point ‹!›):

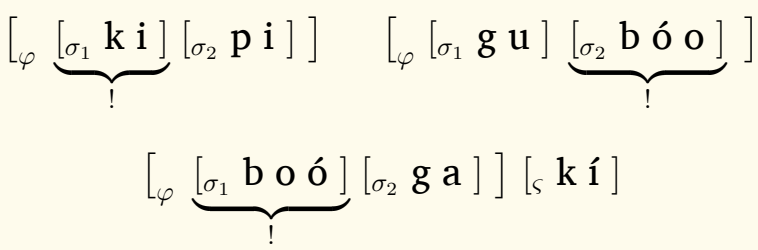


Figure 2.3: Stress placement

2.4 | Tonality

There are two forms of tonality: tone and accent. Tone consists of the marked high tone /◌́/ [◌́]; these are tonic vowels. Vowels unmarked for tone (atonic vowels) are phonetically low [◌̀]. Accent consists of the marked downstep, /◌̂/ [◌̗] (the circumflex is placed on the mora in which the downstep occurs).

These are not absolute pitch values: rather, they vary depending on their environment.

2.4.1 | Tone & allotony

Tone consists of the single marked high tone. A given foot may only contain a single high tone; violations are resolved by tone migration (§ 2.6).

Allotony is the realization of tone and accent when they interact with themselves, stress, and prosodic units. A notable process is tone terracing, wherein the realization of tone is depending on preceding accent, stress, word-initiality, and the quality and distance of the preceding tone.

	#_	#!_	D_	!_	H_	L_	H._	L._	H:_	L:_
H	9	9	+1	+3	+0	+2	+0	+2	+0	+2
L	5	6	−0	−2	−2	−0	−3	−1	−4	−2
D	×	×	×	−6	−6	−5	−6	−5	−6	−5

Figure 2.4: Tone rules

Wherein we posit ten basic tone levels, with zero being the lowest and nine being the highest. Rules are ranked with the leftmost columns taking precedence over the rightmost ones. The following symbols are used:

- H high tone
- L unmarked (low) tone
- D downstep
- _ target tone
- # word boundary
- ! stress
- . syllable boundary
- : foot boundary

- ˖ increase in tone
- ˗ decrease in tone

This may be visualized as such:

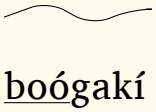


Figure 2.5: Tone diagram

2.5 | Accent

Accent is a bit more complex than tone. The single accent, downstep, is characterized by a sharp fall in pitch after the downstep. This is often accompanied by glottalization and lowering of the downstepped and post-downstep vowels[1]. Downstep tends to occur on any word-internal (non-word-initial, non-word-final; this is not a strict rule) mora, or not at all. Unlike tone, accent is not restricted to vowels; it may also occur on consonantal morae.

In tonic words (words with at least one high tone), downstep (if present) usually occurs after a tonic vowel; this may occur as a result of tone migration (§ 2.6). In atonic words (words without any high tone), downstep may occur on any (word-internal) mora.

In tonic words, downstep is realized as a sharp fall in pitch after a tonic mora:

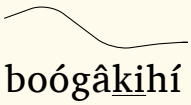


Figure 2.6: Tone-accent diagram

In atonic words with accent, the pitch gradually increases (by a level of ˖1) until the downstep, wherein the pitch sharply falls and continues as expected.

2.6 | Tone migration

Tone migration occurs when two high tones become underlyingly adjacent (as a result of affixation, compounding, etc.) and are within the same foot; when this happens, the leftmost high tone moves leftward to the nearest atonic mora within the leftward adjacent foot. This is hinted in fig. 2.6, and is shown as follows:

boógakí + -gó → *boógakígó → *boógákigó

Figure 2.7: Tone migration (incomplete)

The astute reader[2] may notice that this process still leaves a sequence of two high tones. Tones cannot migrate within a foot, so this is resolved by changing the migrated high tone into a downstep, shown as follows:

[1] /î û ê ô â/ → [ɪ̰ ʊ̰ ɐ̰ ɔ̰ a̰]; like nasalization, this is not overtly indicated in phonetic transcription (except here)
[2] by “astute”, I mean, of course, “even remotely awake”

boógakí + -gó → *boógakígó → *boógákigó → boógâkigó

Figure 2.8: Tone migration (complete)

If a high tone cannot migrate (e.g., the adjacent vowel in the adjacent foot is also tonic, or the migrating tone is adjacent to a word boundary), the otherwise-migrating tone also changes into a downstep (but does not actually migrate).

2.7 | Break indices

Break indices are levels of disjuncture between units of the same tier.

2.8 | Intonation

TODO all of this

3 | Orthography

The Númbati (⟨[illegible]⟩ gúbbâki [ɾúmbȁtì] leaf) script is a defective syllabary.

	i/e	u/o	a/∅
p	[illegible]	[illegible]	[illegible]
k	[illegible]	[illegible]	[illegible]
ʔ	[illegible]	[illegible]	[illegible]
k^h	[illegible]	[illegible]	[illegible]
b	[illegible]	[illegible]	[illegible]
g	[illegible]	[illegible]	[illegible]
ɾ	[illegible]	[illegible]	[illegible]
h	[illegible]	[illegible]	[illegible]

Figure 3.1: Consonant-vowel pairs (Native)

	Dental	*Alveolar*	*Lateral*
Tenuis	[illegible]	[illegible]	[illegible]
Aspirated	[illegible]	[illegible]	[illegible]
Voiced	[illegible]	[illegible]	[illegible]
Glottalized	[illegible]	[illegible]	[illegible]
Continuant	[illegible]		

Figure 3.2: Ideophonemes (native)

ai ae	[illegible]
au ao	[illegible]
ei eu oi ou	[illegible]

Figure 3.3: Diphthongs (native)

There are two punctuation marks and two diacritics in common use:

·	*marks the end of a sentence*
~	*marks the end of a text*
[illegible]	*marks vowel and/or consonant length*
[illegible]	*marks the null initial on h-series glyphs*

Figure 3.4: Punctuation & diacritics (native)

Various dot punctuation marks are uncommonly used, such as in official documents and metalinguistic texts:

׃	*separates morphemes*
··	*separates lemmas within compounds*
∴	*marks the end of a section (chapter, part, etc.)*
׃◌׃	*encloses text (speech, lists, etc.)*

Figure 3.5: Dot punctuation

Wherein:

- all consonants have the inherent vowel /a/
- null nuclei are indicated by the base glyph (i.e., they are not differentiated from ‹Ca› glyphs)
- /i e/ and /u o/ are conflated to i-form glyphs and u-form glyphs (denoted as ‹◌$_{i}$› ‹◌$_{u}$›, respectively; a-form glyphs are denoted as ‹◌$_{a}$›)
- long vowels are indicated by ⟨ٰ⟩ after a consonant glyph
- null initials are written as the h-series with ⟨ٔ⟩ ((هٔ إٔ ىٔ))
- /þ/ and clicks are written with digraphs, in which the second component changes to indicate the vowel
- tone is not indicated

3.1 | Other scripts

We prefer to *not* use romanizations and such, but include the following orthographical transcriptions for conformative purposes[1].

3.1.1 | Latin

	Labial	*Lingual*	*Glottal*
Voiceless plosive	p, f	c, qu, t	x
Aspirated plosive		j, c, k	
Voiced plosive	b, m	g, ch, n, ñ	
Continuant		r, y, d, l	h, s

Figure 3.6: Consonants (Latin)

[1] also, hacm is cool

	Dental	*Alveolar*	*Lateral*
Tenuis	tz	tg	tr
Aspirated	tc	tq	tl
Voiced	dz	dg	dr
Glottalized	dc	dq	dl

Figure 3.7: Dejectives (Latin)

Wherein:

- [p pˀ] ⟨p⟩; [ɸ] ⟨f⟩
- [k kˀ] ⟨c⟩, ⟨qu⟩ before /e/; [t] ⟨t⟩
- [kxh x] ⟨j⟩; [tsh k] ⟨c k⟩
- [b β ~bʁ] ⟨b⟩; [m] ⟨m⟩
- [g ɯɢ] ⟨g⟩, ⟨gu⟩ before /e/; [d͡ʒ] ⟨ch⟩; [ɲ ɾ ŋ] ⟨n⟩; [ŋ] ⟨ng⟩ word-finally
- [ɾ (r)] ⟨r⟩; [j d l] ⟨y d l⟩
- [h s] ⟨h s⟩

i	i s
u	u f
e o	e o
a	a
○ ◌́ ◌̂	○ ◌́ ’○

Figure 3.8: Vowels (Latin)

Wherein:

- diphthongs are written as their component vowels
- [i i̯] ⟨i⟩; [ʂ ʂ] ⟨s⟩
- [u u̯] ⟨u⟩; [f] ⟨f⟩

3.1.2 | Hacm

	Labial	*Lingual*	*Glottal*
Voiceless plosive	ƀ	φ	ɻ
Aspirated plosive		ɳ	
Voiced plosive	ɒ	ɲ	
Continuant		ɥ	ɦ

Figure 3.9: Consonants (Hacm)

	Dental	*Alveolar*	*Lateral*
Tenuis	˺ɷ	˺ʒ	˺ʯ
Aspirated	˺ɾ	˺ɻ	˺ǀ
Voiced	ᵠɷ	ᵠʒ	ᵠʯ
Glottalized	ᵠɾ	ᵠɻ	ᵠǀ

Figure 3.10: Dejectives (Hacm)

i u	ɕ ɘ
e o	ɞ ɔ
a	ɪ
◌ ◌́ ◌̂	◌ ◌ː ◌̣

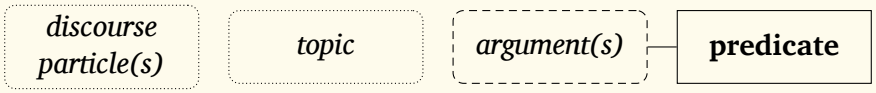
Figure 3.11: Vowels (Hacm)

Wherein:

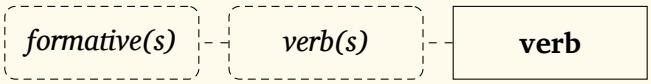
- diphthongs are written as their component vowels

4 | Syntax

The order and structure of constituents within a clause is as follows:



(a) Clausal profile



(b) Predicate profile

Figure 4.1: Constituent profile

Wherein the topic (§ 5.1) is the most topical argument; discourse particles are detailed in Ch. 10.

Predicates are always consist of one or more verbs and zero or more formatives (Ch. 6). A predicate which consists of more than a single verbal is called a complex predicate.

4.1 | Argument order

Within a clause, arguments follow an order based on an empathy hierarchy, wherein higher-ranked arguments are placed before lower-ranked arguments.

2P ≫ 1P ≫ C1 ≫ C2 ≫ C3 ≫ C4 ≫ C5

← *higher* ← → *lower* →

Figure 4.2: Empathy hierarchy

2P and 1P refer to the listener and speaker, respectively. These roles are unaffected by the actual class of the participant to which they refer; i.e., a lower-class participant may outrank a higher-class participant if the former takes the role of listener or speaker.

4.2 | Alignment

The alignment of arguments may be described as split-ergative, split under the following conditions:

- if the ego agreement (§ 8.8) or proform (Ch. 9) is present within a clause, the clause aligns accusatively (S=A≠O[1])
- else, the clause aligns ergatively (S=O≠A)

[1] wherein S is the sole argument of a monadic verb (§ 8.3), A is the most agent-like argument of a dyadic verb, and O, the most patient-like of a dyadic verb

In accusative-aligned clauses, the S/A are called the nominative argument, and the O the accusative argument. In ergative-aligned clauses, the S/O are called the absolutive arguments, and the A the ergative argument.

Nominative and absolutive arguments are grouped as subject arguments, while accusative and ergative arguments are grouped as object arguments.

4.3 | Pivot

Pivot consists of constraints pertaining to prominent arguments within clauses and groups of clauses. This governs many processes, such as:

- repeat argument dropping
- argument questioning
- subordination

In Moógatí, pivot is always centered on the subject arguments (§ 4.2).

For instance, repeat argument dropping is relatively free, as dropped arguments are usually recoverable by agreement. When *not* recoverable by agreement, however, only a repeated subject of a non-initial clause may be dropped.

Likewise, argument questioning and subordination are restricted to subject arguments.

5 | Pragmatics

5.1 | Topic

The topic is the thing about which is being spoken; it consists of information that is already established (given/old information) in the universe of discourse. In natural discourse, the topic of a conversation is fronted (see Ch. 4).

5.2 | Speech acts

Speech acts are functional utterances, i.e., utterances that have meaning.

5.2.1 | Word-to-world

Word-to-world speech acts make words fit the world.

5.2.1.1 | Assertives

5.2.1.2 | Representatives

5.2.2 | World-to-word

World-to-word speech acts make the world fit words.

5.2.2.1 | Directives

5.2.2.2 | Commissives

5.2.3 | Bidirectional

Bidirectional speech acts change the world.

5.2.3.1 | Declarations

5.2.4 | Non-directional

Non-directional speech acts do not affect the world.

5.2.4.1 | Expressives

6 | Lexical classes

There are three basic lexical classes ("parts of speech"): verbs, formatives (and a subset of formatives, ideophones), and particles. verbs and particles are closed classes, i.e., they do not readily accept new members. All ten verbs and their voice stems are detailed in § 8.3.

verbs are heavily inflected, some formatives are lightly inflected, and all other lexical classes are completely uninflected.

6.1 | Semantic classes

All formatives are categorized into one or two semantic classes; assignment to semantic class(es) is dependent on semantic and mythical association. The five classes are as follows:

1	feminine, natural forces
2	masculine, animates
3	thrown/non-rigid inanimates
4	rigid inanimates
5	semantic residue

Semantic classes are glossed as their corresponding number preceded by ‹c›. They are traditionally labelled feminine, masculine, (non-human) animate, inanimate, and residual, respectively.

All formatives take a primary class; many formatives additionally take a secondary class. The secondary class of a given formative must be lower in rank (wherein class 1 is the highest and class 5 is the lowest) than the primary class; additionally, the secondary class cannot be class 5.

The predicate usually agrees with the primary class of a given argument; the predicate agrees with the secondary class of a given argument to indicate prominence or for disambiguation.

6.1.1 | Class 1

Class 1 consists of all entities associated with femininity and natural forces. Femininity is associated with life-giving, birth, and death (the cycle of life is seen as circular). It is also associated with slender shapes and hollow shapes. Natural forces consist of concepts such as fire, water, wind, etc.; most species of bats, birds, and insects are also considered natural forces.

6.1.2 | Class 2

Class 2 consists of entities associated with masculinity and animacy. Masculinity is associated with non-significant (i.e., normally-occurring) activities, soil, and edibles. It is also associated with short shapes and broad shapes. Animacy is associated with most animals (except most species of bats, birds, and insects) and entities which move of their own volition. Most species of lizard, although scaled, also fall under this class.

6.1.3 | Class 3

Class 3 consists of thrown inanimates and non-rigid inanimates. Thrown inanimates are entities which move but not of their own volition; non-rigid entities are those which are easily flexible and pliable, such as leafy plants.

6.1.4 | Class 4

Class 4 consists of rigid inanimates: entities which are not easily flexible nor pliable. Rocks, hard plants, and aquatic scaly/shelled animals also fall under this class.

6.1.5 | Class 5

Class 5 contains everything that does not fall under the other four classes, with some unexpected exceptions. Colors and numerals also fall under this class.

6.2 | Inflection groups

Additionally, all formatives fall into one of three inflection groups, which determines how much (if any) inflection a given formative takes.

1	no inflection
2	number inflection
3	full inflection

Inflection groups are glossed as their corresponding number preceded by ‹ɪ›. They are traditionally labelled young, traditional, and fossilized, respectively.

Inflection groups determine the amount of inflection a formative takes, ranging from none at all to a handful of inflectional categories.

6.2.1 | Group 1

Group 1 is the largest inflection group, and consists mainly of recent loans, newly-coined words, compounds, and a significant portion of native words. This group takes no inflection.

6.2.2 | Group 2

Group 2 consists of an assortment of formatives, mostly native animal terms as well as non-recent loans. This group inflects only for number.

6.2.3 | Group 3

Group 3 consists of a restricted set of formatives. This group inflects for number, alienability, and characteristic.

6.3 | Semantic roles & frames

There are five main semantic roles that an argument may take:

agent	performs an action (volitional)
patient	undergoes an action (salient)
goal	that toward which an action is directed
experiencer	undergoes an effect (non-salient)
stimulus	causes an effect (non-volitional)

Wherein volition describes whether or not a predicate intentionally occurs, and salience describes how strongly affected something is.

Agents (A) are highly dynamic: they perform an action intentionally and/or actively; stimuli (S) are non-dynamic: they cause an effect, but do not necessarily intentionally partake in the action. This may be due to the effect being inherent to the stimulus, or the effect being unintended. These are grouped as actor roles.

Patients (P) are highly salient: they are highly affected by the action; experiencers (E) are non-salient; they are *not* highly affected. This may be due to non-compliance, failure on the affector's part, and/or the effect being inherent to the experiencer. These are grouped as undergoer roles.

Goals (G) are very broadly associated with recipiency; this may be of benefit, motion, possession, etc. They are generally oblique.

Frames define which semantic roles a verb takes. Frames are formatted as ACTOR›UNDERGOER:

1	A›P
2	A›E
3	S›P
4	S›E

Frames are glossed as their corresponding number preceded by ‹F›. The roles of arguments may be modified using a role particle (§ 10.2).

7 | Formal morphology

Formatives of the second and third inflection groups (§ 6.2) take minimal inflection, the profile for which is as follows:

Slot #	*Category*
−1	(characteristic)
0	root
+1	alienability
+2	number

Formatives of inflection group 2 only take number; those of inflection group 3 may take all categories.

All categories are expressed via inverse-marking based on semantic class (§ 6.1), wherein each class has a default value for each category, and is overtly marked for differential values. Corresponding classes are always the primary class of a given formative.

Formatives never inflect when they are part of a complex predicate.

7.1 | Characteristic

Characteristic expresses physical properties of an entity.

	standing	*sitting*	*lying*	*handled*	*partial*	*hollow*	*fluid*
C1	∅	∅	gé-	ho-	pí-	ehí-	kaá-
C2	∅	gé-	pí-	kaá-	kaá-	ho-	ehí-
C3	∅	gé-	gé-	∅	pí-	kaá-	ho-
C4	gé-	∅	∅	ho-	kaá-	ehí-	kaá-
C5	∅	∅	∅	pí-	kaá-	ehí-	ehí-

Figure 7.1: Characteristic

The characteristics are as follows:

7.1.1 | Standing

The standing characteristic describes entities which are taller than they are wide.

7.1.2 | Sitting

The sitting characteristic describes entities which are as tall as they are wide.

7.1.3 | Lying

The lying characteristic describes entities which are wider than they are tall.

7.1.4 | Handled

The handled characteristic describes all entities which are held in one's hand, such as tools and other small objects.

7.1.5 | Partial

The partial characteristic describes particulate matter, entities which has been broken apart, and other non-whole entities. Formatives marked for this characteristic must take the plural number.

7.1.6 | Hollow

The hollow characteristic describes containers and other concave entities.

7.1.7 | Fluid

The fluid characteristic describes all forms of liquid and gas. Like the partial characteristic, formatives marked for this must take the plural number.

7.2 | Alienability

Alienability describes degree of independence from a possessor.

	alienable	*inalienable*
C1, C2	-gó	∅
C3, C4, C5	∅	-gó

Figure 7.2: Alienability

Alienable (ALI) entities may be readily separated from their possessor; inalienable (NAL) may not (e.g., body parts, kin).

7.3 | Number

Number describes the amount of an entity.

	singular	*dual*	*plural*	*associative*
C1, C2	∅	-ɾu	-ka	-guʔá
C3	-ka	-ɾu	∅	-guʔá
C4	∅	-ka	∅	-guʔá
C5	-ka	-ka	∅	∅

Figure 7.3: Number

The singular (SG), dual (DU), and plural (PL) distinction indicates number and formality. Singular indicates exactly one entity, and/or a less formal form of address; dual indicates exactly two entities, with no regard to formality (in part due to its diminishing usage); plural indicates exactly two or more entities, and/or a more formal form of address.

The associative (ASC) is similar to the plural in that it indicates exactly two or more entities. It differs in that instead of specifying multiple instances of the same entity, it indicates an entity and *entities with which it is associated*. This is often used with names (Ch. 16) and multi-component items:

(2) ahirógu?á

⟨  ⟩

ahiró -gu?á
PERSON -ASC

Asiró and her friends

(3) kággugu?á

⟨  ⟩

kággu -gu?á
bow -ASC

bow and arrow(s)

8 | Verbal morphology

All verbs take an assortment of inflections, for which the inflection profile is as follows:

Slot #	*Category*
−1	(e-agreement)
−1a	(u-incorporant)
−1b	(o-incorporant)
0	root, voice
+1	function
+2	mode
+3	(actionality)
+4	evidentiality
+5	i-agreement

8.1 | Morphological reduplication

Morphological reduplication, or reduplication as part of inflection, is used for various purposes in inflection paradigms. It has two parameters: edge and form. Edge describes the side from which the reduplicant (i.e., that which is reduplicated) is formed, as well as the side to which it is attached. Form describes the structure of the reduplicant.

Edge is divided into two types: left- and right-edge; these are glossed as |○~|, |~○|, respectively.

Form is divided into three types:

foot |φ|	edgemost complete foot
syllable |σ|	edgemost syllable (stranded or otherwise)
full |ω|	entire root

Reduplicants are always glossed as RED, with morphological information (if necessary) separated by a dot ‹.›.

8.2 | Incorporation

Formatives may be incorporated, or attached to, a verb. That which is incorporated is called an incorporant.

Incorporation serves many purposes:

- semantically-broadening derivation
- raising of arguments
- backgrounding of arguments
- classification of arguments

8.2.1 | Undergoer incorporation

8.2.1.1 | Possessor-raising

8.2.2 | Oblique incorporation

8.2.2.1 | Location

Location is expressed via body part incorporation, wherein they essentially act as locative applicatives (i.e., they raise a locative oblique argument to the role of undergoer). They have the following meanings:

boógakí	mouth, tongue	at the periphery of
áûʔi	hand, arm	beside, to(ward)
ɾógi	foot, leg	under
gáʔoo	butt	on top of
óhbu	back, spine	behind, away from
kó	stomach	within, inside
keʔo	eyes, ears	in front of
ohé	head, crown	above

8.2.3 | Derivational use

8.2.4 | Argument-backgrounding

8.2.5 | Argument-classification

8.3 | Voice & verbs

Voice expresses the number of arguments a predicate takes, as well as how the arguments relate to each other. All verbs by default are passive (PAS), in which they take a single undergoer argument; this is the most basic form. Active (ACT) forms take two arguments, an actor and an undergoer. Antipassive (ATP) forms take a single actor argument. The passive and antipassive forms are monadic; the active form is dyadic. Each of the ten verbs have different stems for each of the different voices:

	passive	*active*	*antipassive*
hit	háɾ	uɾ	ʔeɾ
carry	ep	pápkʰa	pa
move	ɾuɾú	ɾuke	ɾibá
eat	pobu	kupu	ápê
burn	oʔi	ʔope	agu
sense	kʰúʔ	gigo	kúu
say	guú	geppó	gaʔu
stand	kéhik	gék	kí
sit	góbâí	hóbe	ba
lie	ɾépi	ʔéku	oɾko

Figure 8.1: Voice stems

The ten verbs are divided into three verb classes: physical, communicative, and posture.

8.3.1 | Physical verbs

Physical (PHY) verbs denote actions and states that have tangible, substantial effects. Their frames are as follows:

HIT, MOVE, EAT	F1
CARRY	F2
BURN	F3

8.3.1.1 | Hit

Hit (HIT[1]) encompasses all highly transitive actions (actions in which the actor is highly volitional, and the undergoer is highly salient). It is the most general verb, and is often used as a "filler" onto which other verbs may attach via a function (§ 8.4), if the predicate as a whole is dynamic. It may also be used as a copula that expresses a physical characteristic, such as color:

(4) ikʰá kiiʔuɾʔokú

ikʰá	kii-	uɾ	-ʔo	-kú
red	EGO-	hit.ACT	-TES	-C5

I am red

LIT. 'red hits me'

8.3.1.2 | Carry

Carry (CARRY) encompasses the transfer of entities and of possession, as well as non-volitional movement. It is also used as a possessive copula.

[1] we denote the verbs in SMALL CAPS when in in-line text; in glosses, they are displayed as normal

8.3.1.3 | Move

Move (MOVE) encompasses all forms of volitional movement.

8.3.1.4 | Eat

Eat (EAT) encompasses all forms of volitional consumption. It may be used as an explicit volitional modifier in a complex predicate.

8.3.1.5 | Burn

Burn (BURN) encompasses all forms of non-volitional consumption. It may be used as an explicit non-volitional and/or imperative modifier in a complex predicate.

8.3.2 | Communicative verbs

Communicative (COM) verbs denote exchange of information. Their frames are as follows:

SENSE	F4
SAY	F1

8.3.2.1 | Sense

Sense (SENSE) encompasses all forms of information perception, which may be specified using a body part term in a complex predicate.

8.3.2.2 | Say

Say (SAY) encompasses all forms of information transmission, and is used as a copula expressing equivalency.

(5) hiko ɾiʔa kupi ʔuɾugeppóʔoɾoó

⟨𐤉𐤊𐤐𐤋𐤊𐤕𐤓𐤍𐤋𐤕𐤇·⟩

hiko ɾiʔa kupi ʔuɾu- geppó -ʔo -ɾoó

D1 C2.SG bread C2- say.ACT -TES -C2

this is bread

LIT. ‘this thing here says bread’

8.3.3 | Posture verbs

Posture (PST) verbs denote bodily position. They are commonly used as locative copulae, in which case they are more accurately translated as stand/sit/lie with, at, in, etc. They may also be used to form stative predicates. Their frames are as follows:

STAND, SIT, LIE	F4

8.3.3.1 | Stand

Stand (STAND) indicates that the entity is upright and/or taller than it is wide.

8.3.3.2 | Sit

Sit (SIT) indicates that the entity is squat and/or as tall as it is wide.

8.3.3.3 | Lie

Lie (LIE) indicates that the entity is lying down and/or wider than it is tall.

8.4 | Function

Function describes how a verb is used. There are three main functions: the finite, the participle, and the converb.

The finite (FIN; this is omitted from glosses) function is the default, unmarked form (|∅|) of a verb. This is the only form that may be used to predicate a finite (independent) clause. The other two functions are used to predicate non-finite (dependent) clauses.

8.4.1 | Participle

The participle (PRT) function is used to form dependent clauses that modify arguments or other predicates. Participles and participle phrases are always placed after that which they modify. There are two participles: the positive and the negative:

-ge	*positive*
-pá	*negative*

Wherein the positive (POS) indicates that the predicate *does* occur, while the negative (NEG) indicates that it does *not* occur. Participles are often in the passive or antipassive voice.

A common way to negate an independent verb is to put it in the negative participle form, then use that to modify the general verb (HIT, for actions) or a posture verb (STAND, SIT, LIE, for states). Compare:

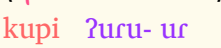
(6) kupi ʔuɾukupuha

⟨  ⟩

kupi ʔuɾu- kupu -ha
bread C2- eat.ACT -EGO

I eat bread

(7) kupi ʔuɾuʔuɾha ápêpáha

⟨  ⟩

kupi ʔuɾu- uɾ -ha ápê -pá -ha
bread C2- hit.ACT -EGO eat.ATP -PRT.NEG -EGO

I do not eat bread

LIT. ‘I not-eatingly hit bread’

Using the negative participle to assert the opposite of that which the speaker believes to be true is also used to form tag questions:

(8) (bohik) kupika pehíʔuɾʔoɾoó horí guûpáʔoɾoó

⟨  ⟩

(bohik) kupi -ka pehí- uɾ -ʔo -ɾoó horí guú -pá -ʔo -ɾoó
(CURIOUS) bread -PL C1- hit.ACT -TES -C2 liver say.PAS -PRT.NEG -TES -C2

do you dislike bread?

LIT. ‘you dislike bread’

Reduplication of the finite predicate as a participle is also used for intensive and defective predicates.

8.4.1.1 | Intensive

The intensive is formed by reduplicating a finite verb and placing it in the positive participle. This may express an intense action (really, very) and/or a greater/excessive degree (more, too much).

(9) kupi ʔuɾukupuha ápêgeha

⟨  ⟩

kupi ʔuɾu- kupu -ha ápê -ge -ha
bread C2- eat.ACT -EGO eat.ATP -PRT.POS EGO

I really eat bread

8.4.1.2 | Defective

The defective is formed by reduplicating a finite verb and placing it in the negative participle. This may express an incomplete/non-culminating (almost, nearly) and/or attempted (tried to) action.

(10) kupi ʔuɾukupuha ápêpáha

⟨  ⟩

kupi ʔuɾu- kupu -ha ápê -pá -ha
bread C2- eat.ACT -EGO eat.ATP -PRT.NEG EGO

I almost eat bread

8.4.2 | Converb

The converb (CNV) function is used to organize predicates temporally and modally. Like participles, converbs and converb phrases are always placed after that which they modify. There are seventeen converbs:

-ʔe	*conjunct*
-kí	*disjunct*
-kép	*anterior*
-buʔi	*posterior*
-beɾe	*immediate*†
-bá	*inchoative*†
-piɾa	*cessative*†
-kʰa	*causative*†
-ogbé	*consequential*†
-ɾáʔ	*concurrent*
-aguɾ	*interruptive*
-ɾiʔé	*expectative*†
-úhɾi	*frustrative*†
-obɾa	*concessive*†
-kipa	*conditional*†
-pó	*resultative*†
-paʔú	*similative*

All converbs marked with a superscript dagger ‹†› may be used in tandem with the anterior or posterior converb in order to indicate at which temporal bound they occur (i.e., before or after).

A given converb takes two predicates, x and y (wherein y is marked by the converb, and is subordinate to x), and organizes them as follows:

8.4.3 | Conjunct

The conjunct (CNJ) converb is the most general converb; it indicates that the predicates x and y occur together, simultaneously, and/or that they are closely related. It may also be used to express that x occurs in the manner of y.

8.4.4 | Disjunct

The disjunct (DSJ) converb indicates that x and y are exclusive alternatives: of the two, only one may occur in a given world. More generally, it is used to express contrast and that the clauses are *not* closely related. It may also be used to indicate a change in subject (§ 4.2).

8.4.5 | Anterior

The anterior (ANR) converb indicates that y occurs at some time *before* x (not necessarily immediately before). This does not imply any other relation besides a temporal one.

8.4.6 | Posterior

The posterior (PSR) converb indicates that y occurs at some time *after* x (not necessarily immediately after). Like the anterior, this does not imply any other relation besides a temporal one.

8.4.7 | Immediate

The immediate (IMM) converb indicates that y occurs *immediately adjacent* (temporally) to x.

8.4.8 | Inchoative

The inchoative (INC) converb indicates that y *begins* adjacent to x.

8.4.9 | Cessative

The cessative (CES) converb indicates that y *ends* adjacent to x.

8.4.10 | Causative

The causative (CAU) converb indicates that y occurs *because of* x, and that y is intentional. It is used to bring attention to the *cause* of an event, rather than the event itself. It may also indicate purpose or benefit for y.

8.4.11 | Consequential

The consequential (CNS) converb is similar to the causative in that y occurs because of x, but indicates that y occurs unintentionally.

8.4.12 | Concurrent

The concurrent (CNC) converb indicates that y occurs *within* x.

8.4.13 | Interruptive

The interruptive (INT) converb is similar to the concurrent in that y occurs within x, but additionally indicates that y is unexpected, unlikely to occur, and/or undesired.

8.4.14 | Expectative

The expectative (EXP) converb indicates that y is expected and/or likely to occur *because of* x.

8.4.15 | Frustrative

The frustrative (FRU) converb indicates that y is unexpected and/or unlikely to occur, but desired *because of* x.

8.4.16 | Concessive

The concessive (CNE) converb indicates that y is undesired, but expected and/or likely to occur *in spite of* x.

8.4.17 | Conditional

The conditional (CND) converb indicates that y occurs *if* x also occurs.

8.4.18 | Resultative

The resultative (RES) converb indicates that y occurs *as a result of* x. It is used to bring attention to the *result* of an event, rather than the event itself.

8.4.19 | Similative

The similative (SIM) converb indicates that x and y are similar.

8.5 | Mode

Mode expresses aspect and mood.

	realis	*irrealis*
progressive	~σ	-api
imperfective	∅	-ɾág
perfective	-pu	~φ
stative	-ʔai	-ɾipa

Figure 8.2: Mode

As the observant reader may notice, the imperfective-realis form is paradigmatically unmarked (i.e., inherent).

Wherein aspect expresses the flow of time of a predicate, and mood expresses the quantification of a predicate.

The progressive (PRO) aspect indicates that a predicate is ongoing at the time being discussed. The imperfective (IMP) aspect indicates that a predicate is incomplete and has interior composition; it differs from the progressive in that its temporal scope is more broad. The perfective (PRF) aspect indicates that a predicate is complete and without interior composition; i.e., it is viewed as a whole. It may also indicate goal-completion, and/or focus the result of the event. The stative (STA) indicates that a predicate is a state of being; it is non-dynamic and does not change.

The realis (REA) mood indicates that the predicate occurs in *all possible worlds* ($\forall x$): in all possible worlds, the value of the predicate is true. The irrealis (IRR) mood indicates that the predicate occurs in *at least one possible world* ($\exists x$): in all possible worlds, the value of the predicate is sometimes, but never always, true.

8.6 | Actionality

Actionality expresses the distribution and iteration of the predicate and its participants.

	Momentane	*Manifold*
Collective	-k^{h}u	-ku~σ
Distinctive	-hibu	~σ-bí

Figure 8.3: Actionality

Wherein distribution is a measure of the individuality of the participants, and iteration is a measure of the repetition of instances of the predicate.

The collective (COL) indicates that the participants act as a single, cohesive unit; the distinctive (DST) indicates that each individual member acts as a separate unit. Generally, distribution pertains to the subject. When used in tandem with the reflexive proform (Ch. 9, the collective and distinctive correspond to reflexive (participant/s act upon oneself/themselves) and reciprocal (participants act upon each other), respectively. Additionally, the distinctive may be used to indicate lack of control regarding the agent, especially if the agent is overtly singular.

The momentane (MOM) indicates exactly one instance of the predicate; the manifold (MAN) indicates two or more instances of the predicate.

8.7 | Evidentiality

Evidentiality expresses how information/knowledge of the predicate was acquired by the speaker. There are three evidentials:

-ga	*personal*
-beɾ	*factual*
-ʔo	*testimonial*

8.7.1 | Personal

The personal (PRS) evidential expresses personal, intimate knowledge. It indicates that the knowledge is firmly integrated into the speaker's perception of the world.

(11) bak^{h}ika guɾóg ʔuɾukóbagakú

⟨[illegible]⟩

bak^{h}i	-ka	guɾóg	ʔuɾu-	kó-	ba	-ga	-kú
yak	-PL	PLACE	C2-	stomach-	sit.ATP	-PRS	-C5

yaks are in Nuróng (I know this from personal experience)

LIT. 'yaks sit in the stomach of Nuróng'

It may also indicate a habitual event (an event that is usually, customarily, or routinely done) and/or an experiential event (an event that was experienced by the speaker). The experiential usage brings attention to the speaker's experience, and indicates that it is relevant and repeatable.

The habitual is only implicated in the imperfective aspect (§ 8.5), and the experiential does not permit a future-occurence interpretation.

8.7.2 | Factual

The factual (FAC) evidential expresses a statement of fact or a general truth (from the perspective of the speaker). It is also used when the statement is obvious to the speaker, especially to express sarcasm; as well as when telling a story, fable, lesson, etc.

(12) bak^{h}ika guɾóg ʔuɾukóbabeɾkú

⟨[illegible]⟩

bak^{h}i	-ka	guɾóg	ʔuɾu-	kó-	ba	-beɾ	-kú
yak	-PL	PLACE	C2-	stomach-	sit.ATP	-FAC	-C5

yaks are in Nuróng (I know this as a fact)

8.7.3 | Testimonial

The testimonial (TES) evidential expresses recently-acquired knowledge, and knowledge that is not firmly integrated into the speaker's perception of the world. It may also be used to indicate surprise on the speaker's part.

(13) bak^{h}ika guɾóg ʔuɾukóbaʔokú

⟨  ⟩

bak^{h}i	-ka	guɾóg	ʔuɾu-	kó-	ba	-ʔo	-kú
yak	-PL	PLACE	C2-	stomach-	sit.ATP	-TES	-C5

yaks are in Nuróng (I know this from recent experience)

It may indicate that the speaker obtained the knowledge firsthand (but recently), from someone else, or that the knowledge was inferred from evidence.

8.8 | Agreement

Agreement tracks the arguments of a predicate.

8.8.1 | Internal agreement

Internal agreement tracks the absolutive argument of ergative-aligned clause predicates, and the nominative argument of accusative-aligned clause predicates. They express largely the same information as proforms (Ch. 9); unlike proforms, agreement does not express number.

ego		-ha
alter	C1	-ʔé
	C2	-ɾoó
	C3	-kaʔ
	C4	-bíi
	C5	-kú
wh		-páa

The wh agreement is used when the referent is unspecified; it is often used to express wh-questions (who, what, etc.) and impersonal expressions (somebody, etc.).

8.8.2 | External agreement

External agreement tracks the non-internal core argument of dyadic predicates (the ergative of ergative-aligned clause predicates, and the accusative argument of accusative-aligned clause predicates), or the most oblique argument of a predicate. Oblique-tracking takes precedence over non-internal core tracking.

ego		kii-
alter	C1	pehí-
	C2	ʔuru-
	C3	gékʰa-
	C4	pií-
	C5	kábe-
wh		úra-

9 | Proforms

Proforms are a special type of formative that may be used in place of another formative. They are often dropped when agreement is present.

		singular	*plural*	*reflexive*
ego		hák	kúgi	bihɾu
alter	C1	áki	bóɾî	
	C2	ɾiʔa		
	C3	gaheʔ		
	C4	bíki		
	C5	kuú		

The ego (EGO) proforms refer to the initiator(s) of the conversation; the alter proforms refer to all other participants (i.e., non-initiators). This is speaker-independent: the ego proform will always refer to the initiator *of a conversation*, not necessarily the current speaker[1]. This may be demonstrated as such:

(14) A: kupika hoɾí kiigeppógaɾoó

⟨  ⟩

kupi -ka hoɾí kii- geppó -ga -ɾoó
bread -PL liver EGO- say.ACT -PRS -C2

I like bread

LIT. 'bread liver-says to me'

(15) B: gi ʔeɾʔoha

⟨  ⟩

gi ʔeɾ -ʔo -ha
SURPRISE hit.ATP -TES -EGO

you do?!

Wherein the EGO in both statements (made by different people) refer to ‹A›, *not* to the speaker of each statement.

The singular/plural distinction is identical to that of formatives of inflection groups 2 and 3. All alter proforms have a single plural counterpart, bóɾî; all proforms have a single reflexive (RFL) counterpart, bihɾu.

The reflexive proform is used to refer to a preceding or postceding entity within the universe of discourse. It may also be used to refer to the possessor of a preceding or postceding entity within the universe of discourse:

[1] in retrospect, "first person" would be a more fitting label than EGO, but we use the latter so as to not conflict with morphosyntactic class numbering

(16) hák ɾógiɾu bihɾu péhiʔuɾʔoroó

⟨꞉꞉꞉꞉꞉꞉꞉꞉꞉꞉⟩

hák ɾógi -ɾu bihɾu péhi uɾ -ʔo -ɾoó

EGO.SG leg -DU RFL C1- hit.ACT -TES -C2

My legs hurt

LIT. ‘my legs hit myself’

Proforms may also be used to express formal possession by juxtaposing a proform and that which is possessed, and an optional possessor, with the following structure:

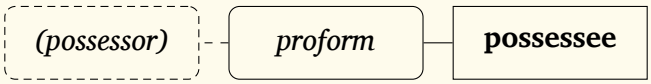


Figure 9.1: Possession structure

10 | Particles

Particles are used to modify clauses and phrases.

10.1 | Demonstratives

Demonstratives are used to indicate and refer to entities. They are always placed before that which they modify.

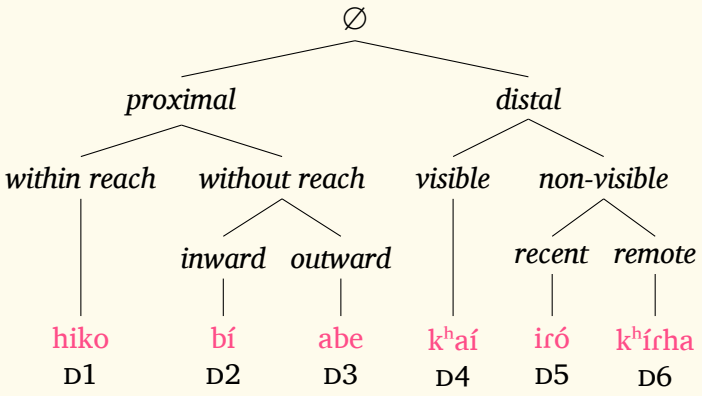


Figure 10.1: Demonstratives

Demonstratives are glossed as their corresponding number preceded by ‹D›.

Wherein proximal vs. distal indicates distance from the point of reference (the origin); proximal indicates that an entity is close to the speaker and/or listener, while distal indicates that an entity is far from the speaker and listener.

The within reach vs. without reach distinction indicates whether or not the origin is able to touch/affect the referent; the visible vs. non-visible distinction indicates visibility.

The inward vs. outward distinction indicates the motion in which the origin and/or referent is moving. This may also be used to indicate potential danger, e.g., one would move away from a dangerous entity.

The recent vs. remote distinction indicates when the referent becomes non-visible; i.e., if it exited sight recently or not.

10.2 | Role particles

Role particles invert the role of the argument (and thus, the frame of the predicate) to which it refers. There are two forms:

baí	*inverse actor*	IAC
eɾu	*inverse undergoer*	IUN

Which apply the following changes:

	inverse actor	*inverse undergoer*
A›P	S›P	A›E
A›E	S›E	A›P
S›P	A›P	S›E
S›E	A›E	S›P

Figure 10.2: Role alternations

10.3 | Discourse particles

Discourse particles express discourse-related phenomena in relation to the participants and the conversation. They are placed at the beginning of a clause or utterance.

íg	*indicates affirmation and/or discourse-completion*	AFFIRM
gé	*indicates agreement with the listener*	AGREE
aa	*inquires affirmation toward the listener*	QUERY
gi	*indicates surprise, doubt, or interest*	SURPRISE
kʰo	*indicates contrast/disagreement toward the listener*	CONTRAST
pí	*requests more information from the listener*	INQUIRY
ɾáp	*requests the attention of the listener*	ATTENTION
kʰí	*requests affirmation from the listener*	CONFIRM
hepe	*expresses frustration, sarcasm, denial*	FRUSTRATE
éé	*expresses uncertainty, confusion, surprise*	UNCERTAIN
hái	*expresses reluctance, refusal, denial*	REFUSE
eku	*expresses aggravation, irritation*	AGGRAVATE
upú	*expresses alleviation, mitigation*	ALLEVIATE
bohik	*expresses curiosity, interest, reflection*	CURIOUS
bapí	*expresses confirmation, affirmation*	CONFIRM
gipóo	*expresses denial, contradiction*	DENY

11 | Ideophones

Ideophones are a subset of formatives that directly express ideas and concepts via associated sound. They may express sensations, or imitate actual sounds (onomatopoeia). Sound symbolism, reduplication, and decoration are highly productive processes with ideophones.

11.1 | Sound symbolism

Sound symbolism is the mapping of sound to meaning, and is used to express various traits and qualities.

11.2 | Reduplication

The process of reduplication, or the repetition of a root, is used to express *???*.

11.3 | Decoration

Decoration is the process of arbitrarily forming bipartite idiomatic roots to express *???*.

12 | Colors

Color terms are a subset of formatives that express shade and hue. There are five basic color terms:

ab	light
ikʰá	red
haʔi	yellow
báɾe	grue
ɾíʔ	dark

13 | Numerals

Numeral terms are a subtype of formatives that express number and quantity. There are six basic numeric terms:

ɾá	one
gí	two
oɾúu	three
behu	one more
piʔú	some[1] more
kʰigíi	five

Numeric terms may stand alone or modify another formative; in the latter situation, the numeric term precedes the other formative.

[1] three–five

14 | Kinship

Kinship terms are a subset of formatives that express familial relationships.

15 | Derivation

15.1 | Compounding

Compounding is a process of derivation, in which one root is appended to another. This combines their meanings, forming a new root. The meaning of roots formed by compounding may be predictable or unpredictable from their component roots.

16 | Names

17 | Channels

Channels modify form of communication (e.g., signed vs. spoken). There are two types: bodily and prosody-mapping.

17.1 | Bodily

Bodily channels express communication via bodily movements.

17.1.1 | Signed channel

17.1.2 | Danced channel

17.2 | Prosody-mapping

Prosody-mapping channels directly map prosody (Ch. 2) to a purely prosodic form; distinct consonants and vowels are eschewed in favor of patterns of tone and rhythm.

17.2.1 | Hummed channel

17.2.2 | Whistled channel

| Appendices

Appendix A is a lexicon of roots, Appendix B details the semantic divisions of certain concepts, and Appendix C gives example sentences.

Lemma entries are structured as follows:

• ⟨native orthography⟩ lemma (morphosyntactic classes) : definition

Formatives may form complex predicates when used in tandem with a verb; these may take an additional detail:

• ⟨native orthography⟩ lemma : definition
  ↦ (verb/verb classes) modification

Wherein the definition may encompass a macrofunctional domain: e.g., what is entered as mouth, speech, language may be used as any and all of mouth, speech, language, (to) say/talk, spoken, etc.

Compound lemmas also have an additional detail:

• ⟨native orthography⟩ compound lemma : definition
  ⊢ component root #1, component root #2

Dialectal variants are shown similarly:

• ⟨native orthography⟩ lemma : definition
  ▸ ⟨native orthography⟩ variant lemma (variant morphosyntactic classes) : variant definition

A | Roots

| Body parts

• ⟨ꞓᔑꞓ⟩ boógakí (I3;C2,3) : mouth, tongue; at the periphery of

• ⟨ᔕᔐᕽ⟩ áû?i (I3;C2,3) : hand, arm; beside
  ↦ (CARRY) give, carry to(ward)

• ⟨ᖵᖽ⟩ rógi (I3;C2,4) : foot, leg; under

• ⟨ᔑᒧ⟩ gá?oo (I3;C2) : butt; on top of

• ⟨ᔐᑌᑕ⟩ óhbu (I3;C2,4) : back, spine; behind
  ↦ (CARRY) take, carry away (from)

• ⟨ᔐᖘ⟩ kó (I3;C2,3) : stomach, container; within, inside

• ⟨ᕁᒪ⟩ ke?o (I3;C1,2) : eyes, ears; see, hear; in front of

• ⟨ᔐᔑ⟩ ohé (I3;C1,2) : head, crown; above

• ⟨ᕁꞓ⟩ gubóo (I3;C1,2) : tongue, nose, taste, smell

• ⟨ᖁᒣ⟩ kipi (I3;C1,2) : heart, blood, knowledge

• ⟨ᖘᒪ⟩ horí (I3;C1,2) : liver, emotion

• ⟨ᕮᖁᕮᖁ⟩ ɪeɪe (I3;C1,2) : breast, milk

| Flora & fauna

• ⟨ᖘᕮᖘ⟩ kuɻʰu (I2;C1) : prototypical class 1 animals (§ 6.1.1)

• ⟨ᖘᖇ⟩ gikʰe (I2;C2) : prototypical class 2 animals (§ 6.1.2)

• ⟨ᕮᖅ⟩ rágô (I2;C4) : prototypical class 4 animals (§ 6.1.4)

• ⟨ᖁᐧᐦᖁ⟩ gúbbâki (I1;C3) : leaf, soft plant, flat material, flat

• ⟨ᖭᕮᒥ⟩ írru (I2;C4) : hand-sized (or smaller) stone

• ⟨ᖪᖇ⟩ hékʰê (I2;C4) : flat-leafed, woody plant; (deciduous) tree, bush

• ⟨ᖭᕯᔑᔑ⟩ ekáhug (I1;C5) : flat area for growing plants, field

• ⟨ᖘᖁ⟩ géki (I2;C4) : needle/scale-leafed, woody plant; (coniferous) tree, bush

• ⟨ᐦᖇ⟩ bakʰi (I2;C2) : domesticated yak

• ⟨ᖘᐧᖘ⟩ úggi (I2;C1) : cat, feline animal
  ▸ ⟨ᐧᐦᖘ⟩ bíiko

| Food, drink

• ⟨ᖘᖁ⟩ kupi (I2;C2,3) : flatbread, bread
  ↦ (EAT) eat something flat

• ⟨ᖘᗡᕯ⟩ kopak (I1;C2) : raw honey, sweet; viscous liquid
  ↦ (PHY,COM) slowly, quietly
  ↦ (EAT) eat something sweet, viscous

| Natural forces

• ⟨ᐧᖭᖪ⟩ paáhi (I1;C1,3) : wind, air
  ↦ (PHY,COM) fast, quickly, loudly

• ⟨ᕮᐦᖘ⟩ kʰábe (I1;C1) : light, brightness; sun, stars, moon

| Items

• ⟨ᕯᖁᐧ⟩ kággu (I2;C3) : bow; bowstring

| Actions

• ⟨ᕯᐦᖘ⟩ kabí (I1;C2) : work, motion, movement

• ⟨ᖭᕯᖪᐧᔑᕮᔑᖁ⟩ ikriboógakí (I1;C1,3) : song, music, good speech/talk, beauty
  ⊢ ikri, boógakí

| Descriptives

• ⟨ᖭᕯᖪ⟩ ikri (I1;C5) : beneficial for one's family, good, desirable

• ⟨ᑌᖇ⟩ hara (I1;C5) : malicious for one's family, evil, bad, undesirable

| Places

• ⟨ᒪᒥᖭ⟩ boɾoí (I1;C5) : house, home, place of residence; safety, safe place

| Sensations

• ⟨ᖁᔑ⟩ kíga (I1;C2) : pain, internal injury

B | Semantic divisions

C | Example sentences

(17) hák kopak óhbu úrapápk^{h}apuʔoroó

⟨[illegible]⟩

hák	kopak	óhbu	úra-	pápk^{h}a	-pu	-ʔo	-roó
EGO.SG	honey	back	WH-	carry.ACT	-PRF.REA	-TES	-C2

who/someone stole my honey

(18) ik^{h}á hék^{h}ê ekáhug píiʔóhbukígeʔokú kábeʔurʔobíi ʔerpáʔokú

⟨[illegible]⟩

ik^{h}á	hék^{h}ê	ekáhug	pií-	óhbu-	kí	-ge	-ʔo	-kú	kábe-	ur	-ʔo	-bíi	ʔer-
red	tree	field	C4-	back-	stand.ACT	-PRT.POS	-TES	-C5	C5-	hit.ACT	-TES	-C4	hit.ATP

pá	-ʔo	-kú
-PRT.NEG	-TES	-C5

the tree behind the field seems red

LIT. ‘red almost hits the tree standing behind the field’

(19) kíga ʔurupápk^{h}aʔoha hárʔeʔoroó

⟨[illegible]⟩

kíga	ʔuru-	pápk^{h}a	-ʔo	-ha	hár	-ʔe	-ʔo	-roó
pain	C2-	carry.ACT	-TES	-EGO	hit.PAS	-CNJ	-TES	-C2

I introduce you to pain

LIT. ‘I carry pain, and you are hit’