Abstract submission for

Workshop: Tone in Grammar
Leipzig 2024

THE FUNCTIONAL LOAD OF TONE IN BILUGU OPO

Joshua Smolders
SIL International

josh_smolders@sil.org

C/O SIL Ethiopia
Box 313/1033
Ayer Tena, AA
Ethiopia

THE FUNCTIONAL LOAD OF TONE IN BILUGU OPO

In the Bilugu dialect of Opo [lgn], a small Nilo-Saharan language of the Koman family spoken in Ethiopia and South Sudan, tone has a remarkably high functional load both lexically and grammatically.

Following tonal analysis methods outlined by Snider (2018), this paper gives evidence that Bilugu has four phonemic levels of tone. This is the largest known tonal inventory of any Koman language to date, the others having at most three (Otero 2019:39-93). Lexical contrast between low (L), mid (M), high (H), and extra-high (X) can be seen in (1), where simplex morphemes of the same grammatical category, class, and syllable pattern are compared and shown to have different tone heights.

(1) Lexical tone contrast.

a. CV nouns

X	/kʰɪ́/	'mouse (sp.)'
H	/pé/	'snake (sp.)'
M	/sē/	'tooth'
L	/pè/	'year'

b. CV transitive verbs

X	/ɓā́/	'put'
H	/sá/	'eat.SG'
M	/tā/	'do, make'
L	/cà/	'dig'

In addition to its lexical functional load, tone also bears a high grammatical load in Bilugu. In the verb system, for example, tense-aspect-modality (TAM) is marked with both replacive floating tone morphemes and tonally contrastive segmental morphemes. This is illustrated in (2) where the difference between the perfective and jussive is solely indicated by the tone of the agreement clitic /ar=/ '3SG.M' (2a-b); likewise the difference between the imperfective and future constructions is the tonal pattern of the agreement clitic plus a tonally distinguished tense-aspect prefix (2c-d).[1]

(2) Tone contrast in the TAM system.

a. **ār=ɟū**
3SG.M:PRF=come.SG
'He came.'

b. **ár=ɟū**
3SG.M:JUSS=come.SG
'Let him come!'

c. **àr=à-** ɟū
3SG.M=IPFV-come.SG
'He comes / is coming.'

d. **ār=á-** ɟū
3SG.M=FUT-come.SG
'He will come.'

In addition, for certain verbs, tone can make the difference between derivational stems, such as transitive and intransitive (3a), singular and plural subject (3b), singular and pluractional (3c), distributed and non-distributed object (3d), and others not shown here.

(3) Tone contrast in verb stem derivation.

a.

ɓà	'lay (vi. SG)'
ɓā́	'lay, put (vt. SG)'

b.

kʰālā	'be small (SG)'
kʰálá	'be small (PL)

[1] Note that the tense-aspect prefixes /à-/ 'IPFV' and /á-/ 'FUT' phonologically detach from the verb when preceded by a pronominal agreement marker, as indicated by the extra space in the data line. Their status as prefixes is made clear in other syntactic constructions.

c.	sāk'ā	'carry'	d.	ɟùk'à	'grind (grain)'
	sák'á	'carry (PLAC)'		ɟűk'ắ	'grind (various kinds of grain)'

In the noun system, tone plays a role in marking nominal relations such as the associative construction, where a floating H tone suffixes to the head noun with the resulting semantics "noun of noun," as show in (4).

(4) Floating tone morpheme in the associative construction.

a.	kògò-ó	wàc'à	→	kògó	wàc'à	b.	ɟè-ó	tòbò	→	ɟě	tòbò
	scale-ASC	fish		scale:ASC	fish		eye-ASC	lion		eye:ASC	lion
				'scale of fish'						'eye of lion'	

In the pronoun system, replacive tone can be seen in the formation of the possessive pronouns for first person plural, as shown in (5).

(5) Replacive tone pattern in first person plural possessive pronouns.

a.	mìnà	'1PL.INCL'	b.	mànà	'1PL.EXCL'
	mĭ́nā	'1PL.INCL.POSS'		máná	'1PL.EXCL.POSS'

Given that previous descriptions of Opo have not provided a thorough treatment of tone (Lemi 2010, Van Silfhout 2013, Mellese 2018), the data in this paper is an important step in the description of Opo and the advancement of Koman linguistics. In addition, the unusual number of contrastive tone levels, the extensive nature of lexical and grammatical tone, and the fact that only some of the tonal constructions can be explained by historical elision of segmental morphemes, Bilugu Opo is an important datapoint in typological studies of African tone.

Abbreviations

1	first person	M	mid tone (◌̄)
2	second person	M	masculine
3	third person	PL	plural / plural verb stem
ASC	associative	PLAC	pluractional
EXCL	exclusive	POSS	possessive
FUT	future	SG	singular / singular verb stem
H	high tone (◌́)	sp.	specific / species name
INCL	inclusive	TAM	tense, aspect, and modality
IPFV	imperfective	vi.	intranstitive verb
JUSS	jussive	vt.	transtitive verb
L	low tone (◌̀)	X	extra-high tone (◌̋)

References

Lemi Kebebw. 2010. *A Grammatical Description of Opo.* MA Thesis, Addis Ababa University.

Mellese Gelaneh. 2018. *Documentation and Grammatical Description of Tapo*. Ph.D. dissertation, Addis Ababa University.

Otero, Manuel A. 2019. *A historical reconstruction of the Koman language family*. Ph.D. dissertation, University of Oregon.

Snider, Keith. 2018. *Tone Analysis for Field Linguists*. Dallas: SIL International Publications.

Van Silfhout, Marijke. 2013. *Opuo: Towards a Phonology*. BA Thesis, Leiden University.