Kunama

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The Kunama are a people of western Eritrea. Kunama (/ku^{1}naa^{23}ma^{2}/) is their self-name, and they call their language /ku^{1}naa^{23}ma^{1} au^{23}ra^{2}/ or /ku^{1}naa^{23}ma^{1} ɲeel^{23}a^{2}/ but this is usually referred to by Western scholars simply as 'Kunama'. It is a language of the Nilo-Saharan phylum, though its family affiliations within that phylum are still a matter of debate; cf. Bender 1989; Ehret 1989. Overall, Kunama has approximately 100,000 speakers. It comprises seven lects (John Abraha Ashkaba 1999), the most widely known of which are Barka (/bar^{2}ka^{2}/) and Marda (/mar^{2}da^{32}/). The present work is based on the latter, though the differences between these two lects is not very great.

Several studies of the language were undertaken at a relatively early date; e.g., Reinisch 1881; Conti Rossini 1903; Castelnuovo del Zappa 1938. More recent studies include Thompson 1983, 1989; Nikodimos Idris 1987; Banti 1994; Bender 1996. Last year the first in-depth investigation of Kunama tone was begun (Connell, Hayward, John Abraha Ashkaba forthcoming), and it is now a present priority to consider how best the findings that are emerging might be incorporated into a revised Kunama orthography.

John Abraha Ashkaba is Coordinator of the Kunama Language Panel of the Ministry of Education of Eritrea and has responsibility for development of the language. He is a bidialectal speaker of both Barka and Marda, and it is his speech that furnishes the material discussed here.

Tone

Kunama is a language in which pitch contrasts play a very significant role in grammar as well as lexicon. In view of its great importance and in order to make clear the tone-marking conventions employed throughout the article, the tonal system is described first.

A recent analysis in terms of three level tones (High (H), Mid (M), and Low (L)) establishes it as having a register tone system (Connell, Hayward & John Abraha Ashkaba, forthcoming). Throughout the present study tones are indicated by superscripted numbers, L = ^{1}, M = ^{2}, H = ^{3}, marked at the end of each syllable.

The maximal syllable consists or two moras, which includes CVV and CVC structural types. Because the tone-bearing unit is the mora, it is common to find sequences of different tones occurring in heavy (bimoraic) syllables, e.g. /baa^{23}re^{1}/ 'two', /ee^{31}te^{1}/ 'Uncover it! (pl.)', /hai^{23}ma^{32}/ 'gazelle'. Sonorant moraic consonants in coda position carry tone (e.g., /a^{2}saŋ^{32}ga^{2}/ 'head', /min^{2}dam^{21}me^{1}/ 'legs (dual)'), though obstruents found in this position cannot bear tone. Tones assigned to such moraic

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obstruents are realized on a preceding vowel, which may therefore give rise to tone sequences on short vowels word-internally, e.g. /ʃeb^{23}baa^{3}re^{1}/ (/ʃɛ̌ːáːrɛ̀/) 'twenty'. Word-final vowels are always monomoraic (cf. below) but in addition to their own tone may also host a floating tone, or in some cases a L or H boundary tone. In this way, they furnish a further source of tone sequences on short vowels, e.g. /sat^{2}te^{31}/ 'three', /ma^{3}sa^{32}/ 'spear', /la^{1}ge^{21}/ 'lands'.

There is also a MH rise that occurs in light syllables word-internally. However, inspection reveals that the preceding syllable always carries L, and a consideration of tonal distribution in general shows that H never occurs preceded by a L tone syllable; as a consequence, this particular instance of a MH rise is interpretable as the realization of H in this context; thus, /la^{1}ge^{3}ja^{2}/ ([làgɛ̄ ́jā]) 'your (pl.) land'. Nevertheless, in the transcribed text instances of such MH sequences are indicated as ^{23} rises.

Not all logically possible tautosyllabic tone sequences actually occur; thus, although three falling combinations are found: HM, HL, ML, the only rising combination is MH.

There are many lexical items distinguished solely by tone, e.g. /a^{2}la^{2}/ 'putting down' or 'shaving', /a^{3}la^{32}/ 'lizard', /a^{1}la^{23}/ 'male anthroponym', /a^{3}la^{2}/ 'knocking, bringing down - e.g., fruit from a tree'. And when we include consideration of grammatical distinctions carried by tone, the matter becomes further complicated, e.g. /a^{2}la^{3}/ 'Leave me! (sg. imperative)', /a^{3}la^{3}/ 'Leave me! (pl.imperative)', /a^{3}la^{31}/ 'Did you (sg./pl.) they leave me?', /a^{2}la^{31}/ 'Did he leave me?', /a^{1}la^{21}/ 'Am I beautiful?'.

High boundary tones on non-utterance-final intonation groups are very frequent in discourse, where replacement of a lexical tone by H indicates the non-finality of the phrase or clause containing that word. Kunama is a verb-final language, so that non-final phrases, subordinate clauses and non-final conjunct clauses are all marked in this way. Sentence-final verbs in indicative mood are signalled with a L boundary tone on the final mora.

In the transcribed text there are many instances of the non-final boundary H. Thus the inherent tone of the coordinating clitic *-tte* 'and' (which is attached to each conjunct) is L, but in the phrase /u^{2}jaa^{32}kuu^{23}ra-t^{2}te^{3} / 'source of the sun' (line 2), it is replaced by H. Likewise the pronouns /a^{1}ba^{1}/ 'I' and /e^{1}ne^{1}/ 'you' are lexically L-toned, but in the phrase /a^{1}ba^{23} e^{1}na^{2} km^{3} tu^{1}ru^{2}da^{2}/ 'I am stronger, fatter than you', Literally: 'I you than strong, fat' non-final boundary H tones are seen on /a^{1}ba^{23}/ and /km^{3}/ (as the final elements in their phrases; it should be recalled that a MH rise following a L-toned syllable has probably to be analysed as a realization of H); the M tone on /e^{1}na^{2}/ has probably to be seen as an interpolation event. It is apparent therefore that in spite of the heavy functional load carried by tone in the language, in certain circumstances it can be overriden by sentence prosody. Our understanding of these circumstances is, as yet, limited and it is to be hoped that it may be possible to carry out further research on Kunama tone, particularly in regard to its interaction with higher level prosodic features involving pitch.

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Consonants

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Labialized Velar	Glottal
Plosive & Affricate	b		t d		t͡ʃ d͡ʒ		k g	kʷ gʷ	
Nasal	m			n		ɲ	ŋ		
Fricative		f		s (z)	ʃ				h
Tap/Trill				r					
Approximant	w					j			
Lat. Approximant				l		ʎ			

Most of the above consonants are contrastive in onset position, as in the following words.

baa^{1}ra^{2}	poor		
tee^{23}da^{2}	to hammer	dee^{23}da^{32}	boy
t͡ʃu^{3}t͡ʃu^{3}ga^{2}	monitor lizard	d͡ʒun^{2}d͡ʒu^{3}na^{2}	fog
kal^{23}la^{2}	according to, like	gal^{1}la^{2}	rainy season, year
ma^{2}ki^{3}la^{2}	waist	na^{1}bu^{1}la^{2}	grave
ɲaa^{2}ɲu^{3}ma^{2}	soft	ŋaa^{3}ŋa^{3}la^{2}	fine - of grinding
fo^{1}go^{1}da^{2}	mistake, to miss one's aim	se^{3}ke^{3}na^{2}	bowl made from a calabash
ʃa^{2}kaa^{3}fa^{32}	odd, unusual	hoi^{23}kaa^{31}da^{2}	to peel - e.g., bark of tree
woi^{3}na^{1}	that, then	ja^{1}jo^{23}	Mother!
laa^{2}la^{2}	spleen	ʎa^{1}ʎa^{2}	aardvaark

Distributional restrictions and frequency considerations:

1. /r/ does not occur initially in native Kunama words though word-internally it is common in onset and coda position, e.g. /gaa^{1}baa^{2}ra^{2}/ 'partridge, spurfowl', /gor^{23}fa^{2}/ 'dirty'. /r/ occurring initially in loanwords is adapted to Kunama pronunciation with a preceding /i/, e.g. /i^{2}rii^{32}ga^{2}/ 'line (< Italian *riga* 'line').

2. The postalveolar affricated plosives are relatively uncommon.

3. The labialized velar plosives are very rare. Initially /kʷ/ occurs in /kʷa^{2}/ 'man, person', /kʷee^{2}ki^{3}ta^{2}/ 'knee'. As onsets word-internally we find a small handful of items containing /gʷ/ as well as /kʷ/; e.g., /ʃur^{23}kʷa^{2}/ 'bird' /aŋ^{2}gʷa^{32}/ 'hyaena', /aŋ^{1}kʷa^{2}/ 'boat'. In the pronunciation of the principal author the last two examples cited appear to contain a falling diphthong in the first syllable, i.e., as [ãũ̃ŋgʷá ˉ] and [àũ̯ŋkʷā] respectively. However, the labial vocoid of the first syllable is interpreted not as a distinct segment but simply as a contextual feature of the pronunciation of the low vowel when followed by a consonant sequence containing labialization.

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4. The palatal lateral approximant /ʎ/ is found in a very few words in this dialect, viz. the item cited above, /a^{1}ʎa^{2}/ 'mountain', and /ku^{1}ʎa^{2}/ 'sky'.

5. /z/ is confined to a few loanwords; e.g. /i^{1}za^{1}bel^{23}la^{1}/ 'Isabella' (< Italian)

6. Nasal + voiced plosive sequences occur only postvocalically, never word-initially. They are probably not to be interpreted as unitary prenasalized stops. High and mid vowels (/i, e, u, o/) preceding such entities have their typical closed syllable pronunciations (cf. below), which supports the analysis of them here as heterosyllabic sequences.

Conventions

1. As indicated by the notation employed the post-alveolar affricates and fricative are judged to be palato-alveolar in articulation.

2. The voiceless plosives, /t, t͡ʃ, k/, are without any appreciable aspiration.

3. /t/ and /d/ tend to a dental articulation, though /n/, except when preceding /t/ or /d/, is alveolar.

4. Preconsonantally /r/ is a short trill but prevocalically it is a tap, e.g. [dàr̀kā] 'woman, wife', [àrāńtā] 'bed'.

Consonant length

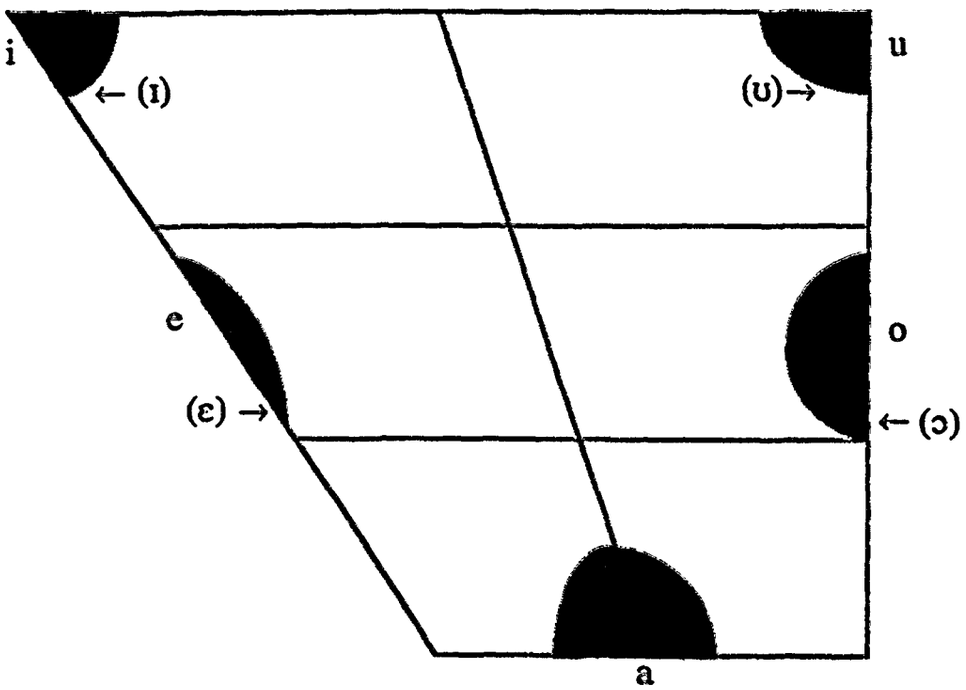
Intervocalically the majority of consonants present contrasts based on duration. /r/, /ʎ/, and /h/, however show no such contrasts; one suspects that the failure to find geminate counterparts for /ʎ/ and /h/ has to be related to their non-occurrence in coda position - but this explanation would not apply to /r/. In the case of the affricates /t͡ʃ/ and /d͡ʒ/ only the stop phase appears to be lengthened, viz. [t:͡ʃ], [d:͡ʒ].

a^{1}ba^{1}	I	ab^{2}ba^{3}ra^{2}	taking care
fi^{3}tii^{2}ga^{32}	bow - weapon	fit^{1}ti^{1}da^{2}	to fly
baa^{32}da^{2}	pain, sickness	bad^{1}da^{2}	above, up
a^{3}ba^{3}t͡ʃa^{32}	warrior	at͡ʃ^{2}t͡ʃa^{2}	dead
ba^{2}d͡ʒa^{3}la^{2}	gonorrhea	ad͡ʒ^{3}d͡ʒa^{32}	forest, wild
sa^{3}ko^{1}da^{2}	to break, shatter	sak^{1}ko^{1}da^{2}	to crush, press down
fa^{2}ga^{32}	prophet	dag^{2}ga^{32}	door
ku^{3}ma^{2}	fist, handful	hum^{3}ma^{32}	tuft
a^{1}na^{2}	hair - of head	an^{2}na^{2}	God
ɲaa^{2}ɲu^{3}ma^{2}	soft	maɲ^{2}ɲa^{2}	stretching
e^{2}laa^{3}ŋa^{2}	our (exclusive) tree	e^{2}liŋ^{3}ŋa^{2}	our (inclusive) tree
ʃa^{1}faa^{23}la^{2}	winnowing basket	ʃaf^{1}fa^{2}	shallow well

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se^{3}sa^{2}	goat	ses^{1}se^{1}ka^{2}	bamboo
ki^{3}ʃa^{2}	piece, small portion	miʃ^{3}ʃa^{2}	tick
e^{2}wa^{32}	cucumber	kow^{1}wa^{2}	collective labour
ja^{1}jo^{23}	Mother!	kaj^{1}ja^{2}	remembering
a^{1}lee^{23}ba^{2}	price	al^{2}le^{31}	here, now

Vowels



The five phonemic vowels /i/, /e/, /a/, /o/, and /u/ range in pronunciation over the shaded areas as indicated. The non-low vowels show a systematic allophony. This is indicated by the vowels in parenthesis in the chart, viz. (ɪ), (ɛ), (ʊ), and (ɔ), which are closed syllable realizations of /i/, /e/, /u/, and /o/ respectively; e.g.

closed syllable		open syllable	
mm^{2}da^{2}	leg	a^{1}bi^{1}na^{2}	elephant
ɛl^{3}la^{32}	one	e^{2}la^{2}	tree
ʃʊr^{23}k^{w}a^{2}	bird	u^{1}ku^{1}na^{2}	ear
kɔn^{2}tal^{3}le^{31}	six	ko^{23}wa^{1}	that person's

Moreover, when these vowels occur word-finally, and are not subject to durational lengthening on account of bearing a tone sequence (cf. below), they seem also to be realized with the lower variant, and in the case of the high vowels some nasalization is apparent, e.g. [baṭ̪ɪ̄] 'then', [ḍ̪ābːō] 'saying' /saa^{23}wii^{1}tat^{2}tɛ^{1}/ 'and (the) wind', /ki^{2}to^{3}ko^{3}maa^{3}nɔ^{3}/ 'it became hot and ...'.

When vowel-initial words are preceded by vowel-final ones they commence with a quite sharp glottal attack; some instances of this are noted in the text.

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Vowel length

All vowels have phonologically long congeners. On account of the constraints on syllable structure long vowels rarely occur in closed syllables, so that we observe none of the open / closed syllable variation seen in short vowels, e.g.

li^{3}la^{2}	to tie	lii^{2}la^{2}	oil
e^{3}ŋa^{3}	Eat! (pl.)	jee^{2}da^{2}	to agree
da^{3}ma^{2}	being angry with	gaa^{2}da^{2}	to go
to^{2}ma^{32}	fire	moo^{23}da^{2}	to quarrel
ku^{2}ta^{2}	breast	tuu^{2}ta^{2}	cotton

There is no phonological length contrast for vowels in word-final position; in this position the actual duration of a vowel is impressionistically longer when it bears a sequence of tones than when it bears a single tone, and this has an effect on the vowel quality in the case of the non-low vowels, which are then realized with their closer variants; cf. above.

There are three tautosyllabic vocoid sequences showing falls in prominence. They are interpreted as diphthongs, viz. /ai/, /oi/, and /au/; e.g. [ai^{2}la^{2}] 'cow', [hoi^{3}ma^{32}] 'inner bark of tree', [fau^{1}de^{21}] 'many'.

Transcription - The North Wind and the Sun

The transcription is basically a broad phonemic one although certain phonetic features of the vowels are also included in a systematic way, as described in the sections above on pronunciation. The brief pause and/or register change that indicates sentence breaks is marked with a hyphen.

a^{1}ran^{23}ta^{1} mɪn^{23}da^{1} ʃʊn^{23}da^{1} saa^{23}wii^{1}tat^{2}tɛ^{1} u^{2}jaa^{32}kuu^{23}rat^{2}tɛ^{3} u^{2}li^{3}ji^{1}daa^{2}sɪ^{1} a^{1}ba^{23} e^{1}na^{2} kɪn^{3} gaŋ^{3}ga^{3}man^{2} dab^{2}bʊ^{2} ʃar^{3}ɔn^{31} mii^{3}ko^{1}si^{2}maa^{2}la^{23} d͡ʒɪb^{2}ba^{3}ta^{2} ko^{3}tuu^{32}ma^{2} ta^{2}bii^{2}la^{2} ʃaa^{32}dɛl^{23}la^{32} mɪn^{3}ti^{3}kɛ^{1} - wɔi^{23}naa^{2}bu^{23} kiim^{32}mee^{1}la^{1} koo^{23}wa^{1} d͡ʒɪb^{23}ba^{1}ta^{2} koo^{1}la^{1} faa^{3}su^{2}moo^{23}wa^{3} gu^{1}du^{2}ra^{3}ta^{2} ʔar^{1}ta^{2} kii^{2}na^{3}kɛ^{1} dab^{2}bʊ^{2} go^{3}ma^{3}tɔŋ^{31}kɛ^{1} - saa^{1}wii^{2}ta^{23} gu^{1}du^{2}ra^{3}ti^{1}ja^{2} buu^{31}bi^{1}jab^{2}bʊ^{2} d͡ʒa^{1}ra^{2}bɛs^{21}kɛ^{1} dɪt^{23}ta^{3} koo^{23}wa^{1} u^{2}la^{32} kɪn^{32} d͡ʒɪb^{2}ba^{3}ta^{2} koo^{1}la^{1} faa^{3}suu^{3}naa^{2}sɪ^{3} ʃoo^{32}sʊm^{23}mee^{32}nɔ^{2} ko^{3}fal^{3}ki^{3} ʔi^{1}wii^{21}kɛ^{1} - bat^{3}tɪ^{3} u^{2}jaa^{32}kuu^{23}ra^{3} an^{1}da^{2} ki^{2}to^{3}ko^{3}maa^{3}nɔ^{3} ta^{2}bii^{2}la^{2} ʔag^{3}ga^{3}doo^{3}wa^{3} lu^{3}dɪt^{3}ta^{32} d͡ʒɪb^{2}ba^{3}ti^{1}ja^{2} koo^{3}laa^{3}kɛ^{1} - wɔi^{23}naa^{2}bʊ^{23} saa^{1}wii^{2}taa^{2}si^{23} u^{2}jaa^{32}kuu^{23}ra^{3} u^{2} n ʊ ^{2} kɪn^{3} gaŋ^{3}ga^{3}ma^{2} kɪ^{1}ʃaa^{2}moo^{23}wa^{1} ki^{1}bi^{1}nii^{23}naa^{1}sɪ^{1} ki^{3}si^{3}bɔŋ^{31}kɛ^{1}

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Orthographic version

(The existing orthography represents /ŋ/ as ñ, /j/ as y, and /ʃ/ as š. Neither vowel length nor tone is represented, though consonant gemination is.)

Aranta minda shunda sawitatte uyakuratte uliyidasi aba ena kin gañgaman dabbu šaron mikosimala jibbata kotuma tabila šadella mintike. Woynabu, kimmela kowa jibbata kola fasumowa gudurata arta kinake dabbu gomatonke. Sawita, guduratiya bubiyabbu jarabeske ditta kowa ula kin jibbata kola fasunasi šosummeno kofalki iwike. Batti uyakura anda kitokomano tabila aggadowa luditta jibbatiya kolake. Woynabu sawitasi uyakura unu kin gañgama kišamowa kibininasi kisibonke.

References

BANTI, G. 1994. On Kunama Tones. Paper presented at the 24th Colloquium on African Languages and Linguistics. Leiden.

BENDER, M.L. 1989. Nilo-Saharan pronouns/demonstratives. In Bender, M.L. (editor), *Topics in Nilo-Saharan Linguistics*,1-31. (Nilo-Saharan Volume 3). Hamburg: Helmut Buske Verlag.

BENDER, M.L., 1996. *Kunama*. München: Lincom Europa.

CASTELNUOVO DEL ZAPPA, GIUSEPPE-FERMO DA, (1938). *Grammatica della lingua cunama*. Asmara: Missione Francescana.

CONNELL, B., HAYWARD, R., AND JOHN ABRAHA ASHKABA, forthcoming. 'Observations on Kunama tone (Barka dialect).'

CONTI ROSSINI, C. (1903). Per la conoscenza della lingua cunama. *Giornale Societa Asiatica Italiana* 16: 187-227.

EHRET, C. (1989). Subclassification of Nilo-Saharan: a proposal. In Bender, M.L. (editor), *Topics in Nilo-Saharan Linguistics*, 35-49. (Nilo-Saharan Volume 3). Hamburg: Helmut Buske Verlag.

JOHN ABRAHA ASHKABA (1999.) *Prerequisites for a Kunama - English Dictionary*. Unpublished MA dissertation, School of Oriental and African Studies, University of London.

NIKODIMOS IDRIS (1987). *Sentence Structure of Kunama*. Unpublished BA dissertation, Addis Ababa University.

REINISCH, L. (1881). *Die Kunama-Sprache in Nordost-Afrika*. Akadamie der Wissenschaften 98. Wien.

THOMPSON, D.E. (1983). Kunama: Phonology and Noun Phrase. In Bender, M.L. (editor), *Nilo-Saharan Studies*, 280-322. (Monograph No. 13, Committee on Northeast African Studies). East Lansing, Michigan: .Michigan State University.

THOMPSON, D.E.. (1989). Kunama Verb Phrase. In Bender, M.L. (editor), *Topics in Nilo-Saharan Linguistics*, 305-346. (Nilo-Saharan Volume 3). Hamburg: Helmut Buske Verlag.

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