

Surface Tones in Chaga: Towards a Tonetic Classification

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1. Introduction

The Vunjo dialect of the Chaga (Bantu) language is spoken by approximately two hundred thousand Wachaga people on the slopes of Mount Kilimanjaro in Tanzania. A prevalent or standard form does not exist in the Chaga language and it is not actively written except for a few religious hymn books. Occasionally friends write to one another in the dialects but tone is not marked so that the dialects exist side by side influencing one another and being much influenced by Swahili vocabulary and syntax.

1.1. Stage of Research on the Chaga language

The first published work (Raum, 1964) described the Moshi dialect but contains very little on tones.

1.2. Corpus

The material analysed for this paper is not based on a strictly delimited corpus since the author speaks the dialect as his mother tongue.

1.3. Terminology

The terminology used in this study is freely drawn from that of modern Bantuists and that of general phonetic and linguistic description. The symbols are those of the IPA.

2. Main Structural Features of Vunjo

Since tonetics and tonology are intricately interrelated to segmental phonology, morphology and syntax it is proposed here that only the main features will be presented in outline.

2.1. Vowels

Vunjo has five vowel phonemes represented as /i/, /e/, /a/, /o/ and /u/.

Phonetic realisations are [i], [e], [a], [o], [u]. Minimal pairs involving long and short vowels are not found in Vunjo vowels. All vowels are phonemically short. Phonetically long vowels occur as a result of morphophonemic processes (see 2.4). There are no phonemic diphthongs. What appear to be diphthongs are quick transitions from one vowel to another.

Vowel Distribution

All vowels can occur alone as independent syllable-carrying tones of the structure -V. Moreover all vowels can occur alone initially before a consonant or another vowel and finally after a vowel as most of Vunjo syllables are open hence /#-C, /#-V, /C-C, /CV-#. In all these cases they carry tone.

2.3 Consonants

Phonologically Vunjo has twenty-eight consonant phonemes which are realised as twenty-nine consonant sounds phonetically.

2.3.1. Phonetic Chart of Vunjo Consonants and their realisations

	Bilabial	Labio Dental	Dental	Alveolar	Palatal	Velar	Glottal
Stops	p	b	t	d	c	k	
Prenasalized		mb		nd			ŋg
Fricatives		f	s	ɹ	ʃ		h
Prenasalized			mv	nz			
Affricates		pf	ts		tʃ		
Prenasalized					ndʒ		
Nasals		m		n	ɲ	ŋ	
Laterals				l	λ		
Flapped				r			
Rolled				r			
Semi Vowels		w			j		

The phonetic realisation of the consonants is as follows:

Stops: *pata* MM (field) *mbora* HM (blessing) *urifo* MLM (foot) *ndifo* MM (footsteps), *duka* MM (shop), *ikoru* MML (snail), *cija* ML (yam), *ŋgofi* HH (blows); Fricatives: *ifila* MML (weakling), *mvuo* HH (rain), *isembo* HHL (fool), *nzie* HL (locust), *rema* HH (farm), *mjiki* MML (sister) *handu* HL (place); Affricates: *tjoma* MM (mucus), *ndzui* HH (hair), *pfumu* HH (spear), *kizsi* ML (waist); Nasals: *manake* MMM (boy), *natsi* ML (dry grass), *ŋama* HL (meat), *ruŋu* ML (leopard); Laterals: *lorika* HHL (stool) *maɫa* ML (edibles); Flaps: *kora* HM (moss); Rolls: *ŋgerero* HML (beard); Semivowels: *woli* ML (wedding), *jewa* HL (shoulder).

2.3.2. Consonant Distribution

All consonants can occur in initial and intervocalic and after syllabic nasals without noticeable phonetic modification.

2.4. Morphotactics (Morphophonology)

The most common morphophonemic changes observed in Vunjo (Chaga) are also very common in most other Bantu Languages when sounds are in contact. These are contraction, assimilation, elision, devocalization and palatalization.

2.4.1. Contraction

a + a > a: /wa+ana/ > [wana] (HH) (children).

2.4.2. Reciprocal Assimilation without Contraction

a + i > ee: /wa+iwi/ > weewi HLH (thieves).

2.4.4. Elision

i. V+CV+o > V+C+o: /i+tʃu+o/ [itʃo] HH (that one Cl 1)

ii. CV1+V2 > CV2V2: /wa+ou/ > [woou] HLH (fearful ones Cl 2)

2.4.5. Devocalization

i+V > j: /i+a+ko/ > [jako] ML (mine).

2.4.6. Consonant Assimilation

r > d, w > b: /n+rusu/ > [ndusu] HH (strings) /n+weri/ > [mberi] MM (feathers).

2.4.7. Consonant Loss

n > ø /-p, t, k, l v, s, f, (optional): /n+fana/ > [fana] MM (birth mark) /n+teri/ > [teri] HL (soil).

2.4.8. Palatalization

This affects the sound /k/ mostly so that it is always palatalized before front vowels: /ki+ndo/ [cindo] HL (thing).

3. Tonic Classification of Nouns

3.1.

A simple noun in Vunjo (Chaga) consists of at least one independent prefix and a noun root: *mndu* </mu+ndu/ (person) *pl* (wandu). On the phonetic level some of the prefixes are not realised, e.g. [pfumu] <i+pfumu/ (spear) *pl* [mapfumu]. Compound nouns consist of two independent prefixes and at least two stems: [mndumka] </m+ndu+m+ka/ (woman). Complex nouns

consist of at least three prefixes and at least two stems: e.g. [mawanduwasoro] < /ma +wa+ndu+wa+soro/ (big men).

3.2. *Phonetic Realisations: Syllabic Structure of Nouns.*

A noun always occurs with its prefix in speech, except where the prefix has been dropped by specific morpheme rules. It is within this framework that the tonetic classification of nouns is given.

Most of the nouns in Vunjo are of the syllable structure CVCV and CVCVCV. Monosyllabic, quadrisyllabic and pentasyllabic nouns occur very infrequently. Of a total 484 nouns examined only 6 (1.2%) were monosyllabic, 197 (39.4%) disyllabic, 223 (46%) trisyllabic, 32 (6.4%) quadrisyllabic, and 6 (1.2%) pentasyllabic. Disyllabic and trisyllabic tonetic realisations accounted for 86% of the total.

3.3. *Tonetic Patterns of Nouns*

The nouns were tonetically classified into different patterns depending on their tonal realisations in isolation and also in a very limited context. A question such as 'what is the word for 'stranger' in Vunjo' the answer, 'mjenu' HML. This was then put in the context, /ni mjenu tupu/ 'it is a stranger only'. On the basis of this criteria the following patterns were found. The monosyllabics have one pattern: H ɾ (sleep). The disyllabics have five patterns: HH mana (child), HM kip fi (wasp), MM pata (meadow), HL kindo (thing), ML soka (axe). Trisyllabics: MMM it feru (tick), HML kikut fu (bag), HHL lorika (stool), MML mkuma (wind), HLH kikapu (basket), MLM mkoku (baby), HLL kileje (bird). The quadrisyllabics were found to have eleven patterns HLHL kilemeko (bend), MLML lavvutaji (brother-in-law), HLLM uangari (thirst), HLLH kilodaja (hare), MLHH mfiriwa (cattle-pen), HHLH ndarakana (spark), HHMM warisinda (sister in law), HHHH manamae (cousin), HMMM ikuŋia (sack) HLLL kipoporu (rodent), HHHL ndondokoro (ant). The pentasyllabics have three patterns: HLHLH (mneengeri), MLLHL it fongololo (millipede) HLHHL (ikururuma) (thunder).

References

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