

MINISTRY OF SCIENTIFIC AND TECHNICAL RESEARCH

NOTES ON THE PHONOLOGY
OF THE KOM LANGUAGE

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NOTES ON THE PHONOLOGY OF THE KOM LANGUAGE

1. Introduction

This report will present a tentative phonological analysis of the Kom language based on linguistic field research conducted during the period June 1989 to March 1991. Mr. Pius Loh served as the primary research assistant.

1.1 People

There are over 127,000 speakers of the Kom language (Ethnologue, 1984) which reside in Boyo Division, Northwest Province, Cameroon. Boyo is a mountainous and rural area which is difficult to access due to poor road conditions, especially during the period July through October. Most of the Kom people engage in farming activities. The Kom language is used in all domains of society except that Pidgin may be used with non-Kom speakers and English may be used in conducting government business.

1.2 Language Classification

The Kom language is one of the Central Ring languages of Grassfields Bantu (Bantoid, Benue-Congo, Niger-Congo, Niger-Kordofanian). The major dialect, *Itanjikom*, which serves 95% of the population, was the subject of this study.

1.3 General features

There are certain general features of the phonology of the Kom language that are noteworthy. The tonal system has not been systematically investigated but several observations are made; see 8. Nasalization occurs at the syllable and word level; see 3.2.4 and 9.4. Labialization takes place at the syllable, word, and phrase level; see 3.2.2, 6.4, and 7.1. There is palatalization at the syllable and word level; see 3.2.3 and 6.1. A series of complex consonant clusters also exists; see 3.2.5. Coalescence occurs at the syllable and phrase level; see 5.2 and 7.2. The free variation of certain phonetic segments is common; see 5.4. An interesting feature is the transformation of coronal consonants at the word level; see 6.1, 6.2.

2. Phoneme

There are 19 consonant and 6 vowel phonemes in the Kom language all made with egressive lung air. See appendix.

2.1 Chart of phonemes

2.1.1 Chart of consonants

	labial	alveolar	palatal	velar
noncontinuant, voiceless		t	c	k
noncontinuant, voiced	b	d	j	g
continuant, voiceless	f	s		
continuant, nonsonorant, voiced	v	z		y
noncontinuant, sonorant	m	n	p	ŋ
sonorant, continuant, nonsyll	w	l	y	

2.1.2 Chart of vowels

	non back	back unrounded	back rounded
high	i	ɨ	u
nonhigh	e	a	o

2.2 Distinctive features

2.2.1 Distinctive features chart

	b	m	f	v	t	d	s	z	n	l	c	j	ŋ	y	g	r	ɣ	ɥ	w	i	e	ɪ	ə	u	o
consonantal	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	-	-	-	-	-	-	-	-	-
syllabic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
sonorant	-	+	-	-	-	+	-	+	-	+	-	+	-	+	-	+	+	+	+	+	+	+	+	+	+
continuant	-	-	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
rounded	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
voiced	+	+	-	+	-	+	+	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
high	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
back	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-	+	+	+

2.2.2 Minimal feature specification

/b/ + consonantal + voice + labial
/d/ + consonantal + voice
/j/ + consonantal + voice + high
/g/ + consonantal + voice + high + back
/t/ + consonantal
/c/ + consonantal + high
/k/ + consonantal + high + back
/v/ + consonantal + voice + labial + continuant
/z/ + consonantal + voice + continuant
/γ/ + consonantal + voice + continuant + high + back
/f/ + consonantal + labial + continuant
/s/ + consonantal + continuant
/m/ + consonantal + voice + labial + sonorant
/n/ + consonantal + voice + sonorant
/p/ + consonantal + voice + high + sonorant
/ŋ/ + consonantal + voice + high + sonorant + back
/l/ + consonantal + voice + sonorant + continuant
/y/ + voice + high + sonorant + continuant
/w/ + voice + high + sonorant + continuant + labial + back
/i/ + syllabic + voice + high + sonorant + continuant
/e/ + syllabic + voice + sonorant + continuant
/ɪ/ + syllabic + voice + high + sonorant + continuant + back
/a/ + syllabic + voice + sonorant + continuant + back
/u/ + syllabic + voice + high + sonorant + continuant + labial + back
/o/ + syllabic + voice + sonorant + continuant + labial + back

3. Syllable

3.1 Syllable types

The syllable is composed of an obligatory nucleus, an optional initial margin and an optional final margin.

The nucleus may be simple or complex. The simple nucleus consists of a single vowel. The complex nucleus consists of a vowel preceded by a palatalized or labialized consonant, a vowel followed by a palatal offglide, or by vowel coalescence.

The initial margin may be simple or complex. The simple margin is filled by a single consonant. The complex margin is filled by a consonant cluster. The final margin is always simple, filled by a single consonant.

(N) (C) (C) (V) V (C)

There are thirteen possible syllable types in the Kom language, as follows:

V	[ā]	/a/	"it"
CV	[bō]	/bō/	"lord"
CVC	[tēm]	/tem/	"clear"
CCV	[kfi]	/kfi/	"harvest"
CVV	[guō]	/guō/	"divide"
CCVC	[gvèl]	/gvèl/	"fell (a tree)"
CCVV	[ŋkuō]	/nkuō/	"basket"
CVVC	[bēi?.lī]	/beikli/	"sell"
CCVVC	[nsiīn]	/nsiīn/	"hangar"
CCCV	[mbzī]	/mbzī/	"world"
CCCVC	[ntfīl]	/ntfīl/	"a palace society"
VC	[īl.vā]	/īlvā/	"stomach"
N	[m.bām]	/mbam/	"snake"

3.2 Restrictions on cooccurrence within the syllable

The simple syllable initial margin may be filled by any consonant except for the palatal nasal. The complex syllable initial margin may be filled by a consonant cluster, a nasal plus a stop, a nasal plus a fricative (except for the velar), a nasal plus /l/ (see 3.2.4), an obstruent (except for the velar fricative) plus a fricative (except for the velar), and a nasal plus a stop (excluding the affricates) plus a fricative (except the velar) (see 3.2.5).

The syllable final margin can be filled by a nasal consonant (except the velar), /l/, the voiceless fricatives, and the voiceless velar stop.

3.2.1 Distribution of phonemes in the syllable

	V	CV	VC	CVC	CVV	CVVC	CCV	CCVC	CCVV	CCCV	CCCVC
b	x		x	x	x	xx	x	x	x	x	x
d	x		x		x	xx	xx		x	x	x
j	x		x	x		xx	xx	x			
g	x		x	x		xx	xx	x	x		
t	x		x	x	x	xx	xx	x	x	x	x
c	x		x	x	x	xx	xx				
k	x	x	x	x	x	xx	xx	x	x		x
v	x	x	x			xx	x		x	x	x
z	x	x	x			xx			x	x	
y	x	x	x								
f	x	x	x		x	xx	x				x
s	x	x	x	x	x	xx	xx	x	x	x	x
m	x	x	x	x	x	x	x	x	x	x	x
n	x	x	x	x	x	x	x	x	x	x	x
p				x		x		x			
ŋ	x		x		x						
w	x	x	x								
l	x	x	x	x	x	x	x	x			x
y	x	x	x	x	x						
i	x	x	x	xx	xx	x			x	x	
e	x	x	x	xx	x	x	x				
í	x	x	x	x	xx	x	x	x	x	x	x
a	x	x	x	x	xx	x	x	x	x	x	
u	x	x	x	x	xx	xx	x	x	x	x	
o	x	x	x	xx	x	x	x	x	x		

3.2.2 Cooccurrence of labialized consonants with vowels

Labialization occurs with most consonants except for the voiced fricatives. The vowels that follow such labialization are generally low back vowels as seen below. The words at the right provide examples of the vowels that follow labialization.

i e í a o

bu		x x	/ibuaj/	"fufus"	/imbuòl/	"tadpoles"
du		x	/iduam/	"a tree"		
ju		x	/mìjuo/	"a juju"		
gu		x	/guò/	"divide"	/ituo/	"hut"
tu	x	x x	/ítuek/	"piles"	/ítual/	"numb limb"
cu		x	/cuò/	"pass"		
ku		x x	/kuâktì/	"think"	/nkuo/	"basket"
fu		x	/ífuo/	"things"		
su		x x	/isuâktì/	"rag"	/fìnsuo/	"sm basket"
mu	x	x	/imuen/	"worm"	/imual/	"scars"
ŋu		x	/ŋuâklì/	"book"	/iluò/	"bridge"
lu	x	x x	/iluen/	"bamboo"	/iluam/	"fallow field"
yu		x	/iyuansi/	"sugarcanes"		

3.2.3 Cooccurrence of palatalized consonants with vowels

Palatalization occurs with most consonants except for the velar and/or labio-velar sonorants. The palatalization of the labial and velar consonants takes the form of [i] while the alveolar and palatal consonants take the form of [ɪ]. The palatalized consonant is generally followed by an unrounded vowel as seen by the chart below and the examples to the right which show the vowels that follow palatalization.

	e	i	a	u	o			
di	x					bɪ /bìɛs/	"open"	/dief/ "long"
ji	x	x	x	x		/fìdiòn/ "honey"	/diim/ "play"	
		x				/si jia/ "take it easy"		
ti		x				gi /gìa/ "voice"	/dial/ "showy"	
ci	x	x				/tiati/ "your c13"		
		x				/cieksi/ "wipe"	/fìncià/ "bow"	
		x				ki /kìati/ "become immune"		
si	x	x	x			fi /fiel/ "stagger"	/ifian/ "valley"	
zi		x				/sièmsi/ "tilt"	/siìn/ "rush"	
		x				/ziâ/ "your c19"	/siasi/ "your c110"	
li		x				yi /yìa/ "your c12"		
	x	x				/liàti/ "surround"		
ni	x	x	x	x	x	mi /mìèl/ "take handful"	/mìà/ "your c16a"	
						/niemsì/ "handle"	/niim/ "smile"	
						/niàk/ "write"	/fìniù/ "knife"	
						/nios/ "smash"		

3.2.4 Cooccurrence of prenasalized consonants with vowels

All consonants except for the semivowels can be preceded by a nasal. The sequence nasal plus consonant can be followed by a wide range of vowels of no discernable pattern. The chart below reveals the vowels that follow nasalization. Examples of this cooccurrence are to the right.

i e i a u o

mb	x x x x x	/mbe/ /mbās/ /mbon/ /ndi/ /ndū/ /fīnjēn/ /fīnjān/ /ngè/ /ngūm/ /àntim/ /ntāl/ /nci/ /ncen/ /ncak/ /incok/ /nki/ /înkâk/ /nvì/ /mzì/ /anfim/ /ansi/ /nsak/ /ànlè/	"hammer" "vegetables" "ox" "insult" "go" "star" "a game" "deer" "porcupine" "heat" "pride" "guardian" "bottle" "prison" "bush fowl" "watcher" "trees" "drink" "swallow" "a beetle" "sifter" "judgment" "loss"	/mbi/ /mbuk/ /nda/ /nde/ /ndo/ /nji/ /ngàn/ /ngì/ /ngòk/ /nten/ /ntum/ /ntōp/ /ncil/ /ncùm/ /nkìn/ /nkef/ /nkuf/ /infûk/ /nfama/ /nse/ /ànsòn/	"evil" "jigger" "who" "seed" "house" "sheep" "medicine" "kettle" "stone" "a tadpole" "message" "pot" "lid" "drum" "boundary" "awhile" "barrel"
nd	x x x x x				
nj	x x x				
ng	x x x x x				
nt	x x x x x				
nc	x x x x x x				
nk	x x x x x				
nv	x				
mz	x				
nf	x x x x				
ns	x x x x x				
nl	x				

3.2.5 Other consonant sequences

The obstruents combine with the fricatives to form consonant clusters. All stops are followed by a fricative of the same point of articulation and voicing. All fricatives, except for the velar, combine with a fricative of the same voicing. The most frequent sequence is the velar stop plus labiodental fricative combination. The high, unrounded, back vowel follows all of these clusters and is the most frequent. See chart below and examples to the right.

i e i a u o

bv	x	/bvisi/	"spray"
bz	x	/bzì/	"goat"
dv	x	/dvi/	"many"
dz	x	/dzisi/	"make cry"
jv	x x x	/jva/	"stream"
gv	x x x x	/gvi/	"come"
		/figvif/	"a bat"
tf	x	/tfis/	"scatter"
ts	x	/tsin/	"push"
cf	x x	/cfin/	"tie"
kf	x x x x	/kfi/	"harvest"
		/kfip/	"hill"
vz	x	/vzi/	"that"
zv	x x	/zvitì/	"listen"
fs	x	/fsi/	"take"
sf	x	/sfis/	"spill"

Those clusters comprised of a stop (excluding the affricates) followed by a fricative can also be nasalized resulting in a cluster of three consonants, followed most commonly by the high, unrounded, back vowel. See chart and examples below.

	m	n		
bv	x		/mbvik/	"anthill"
bz	x		/mbzi/	"world"
dv		x	/ndvis/	"a drum"
dz		x	/ndzisi/	"clothes"
jv				
gv	x		/ngvi/	"visitor"
tf		x	/ntfil/	"palace society"
ts	x		/ntsi/	"blacksmith"
cf				
kf	x		/nkfè/	"a cook"
vz				
zv				
fs				
sf				

4. Word structure

The phonological word can be composed of one, two, three, or four syllables. One syllable words occur most frequently, followed by two syllable words. Three and four syllable words are rare.

The chart below demonstrates which two syllable combinations are possible. The vertical column represents the first syllable and the horizontal line represents the second syllable. For example, the syllable pattern V. combines with syllable pattern .CV to form a two syllable word of the pattern V.CV.

.V .VC .N .CV .CVC .CVV .CVVC .CCV .CCVV .CCVC .CCVVC .CCCV .CCCVC

V.		x	x	x	x	x		x	x	x	x
VC.			x	x					x		
N.			x	x							
CV.			x	x	x	x	x	x	x	x	
CVC.	x		x			x					
CVV.			x								
CVVC.			x								
CCV.			x	x							
CCVV.			x								
CCVC.	x		x	x							
CCCV.			x								

The most common two syllable nouns are those formed by the prefixes /i-/ , /i-/, and /a-/. These syllables can be followed by a syllable containing any other vowel except that the prefix /i-/ is never followed by the vowel /i/ and it is never followed by the vowel /a/ directly, there is always a labial element between, such as,

/ibuan/	"fufus"	/iluam/	"fallow fields"
/iban/	"red"	/ilak/	"country"
/aban/	"fufu"	/alam/	"workshop"

The next most common two syllable nouns are those formed by the prefixes /fi-/ , /mi-/ , and /ti-/ These syllables can be followed by a syllable containing any other vowel however the high front vowel occurs the least in this position.

/fises/	"louse"	/mīlūk/	"wine"
/tīci/	"sticks"		

The plural of certain nouns is formed by the suffix /-si/. This, too, can be preceded by any vowel with the /i/ being the most rare.

/ntōnsi/	"pots"	/bisi/	"dogs"

Certain abstract nouns are formed by the suffix /-ni/, such as

/mbōini/	"peace"	/ncini/	"character"

The most common two syllable verbs are those formed by the suffixes /-si/ and /-ti/. These syllables can be preceeded by a syllable containing any other vowel however the high front vowel occurs the least in this position.

/diānsi/	"cross over"	/bifti/	"ask"

There are several two syllable verbs that are not formed with one of the above suffixes which frequently end in the high front vowel, such as

/visi/ ,	"let go"	/lāli/ ,	"rise up"
/gēli/ ,	"carry"	/buni/ ,	"sleep"

5. Phonological processes

5.1 Processes determined by the phonetic environment

The nasal assimilates to the same point of articulation as the following consonant except before labiodental consonants.

/N/ → [a pt.] / _ C [a pt.]	[ngə?],	/ngek/	"trouble"
	[mbāl],	/mbāl/	"mask"
note: exception	[ñfāmā],	/nfama/	"eight"

5.2 Coalescence

There occurs in the language three examples of vocoid phones coalescing where two phonemes are actualized as one sound. These three sounds are found rarely in languages and this interpretation provides for a more symmetrical vowel pattern. The sequence /iu/ is realized as [ü], the sequence /io/ is realized as [œ], and the sequence /ia/ is realized as [æ] in open syllables.

/iu/ → [ü] / __ \$	[ā.zü], /aziu/ "nose"
/io/ → [œ] / __ \$	[ī.kœ], /īkio/ "arm"
/ia/ → [æ] / __ \$	[kæ], /kià/ "four"

The sequence of alveolar nasal plus high front vowel is realized as a single phone, the palatal nasal, syllable initial. This is realized since there is no contrast between [n] and [ñ] before [i]. The sequence [ni] does not occur.

/ni/ → [n] / \$ __	[nám], /niam/ "animal"
--------------------	------------------------

There is a complete series of vowels with a high front vowel offglide [eⁱ, iⁱ, aⁱ, uⁱ, oⁱ] which primarily occur before [n] but also occur before the suffixes [-ti, -si, -ni, -li]. Where these diphthongs appear before [n] it is an example of reciprocal conditioning. There is anticipation of the articulation of the second segment of the sequence, [n], with a delayed decay of the syllable nucleus. The [n] conditions the nucleus, and causes the offglide, and the nucleus takes some of the properties of the [n]. The offglide is considered as a feature of the consonant /n/ and not a part of the syllable nucleus. See examples below.

[wó ⁱ n]	/wɔn/	"children"
[yú ⁱ n]	/yun/	"buy"
[ká ⁱ n]	/kan/	"monkey"
[kfí ⁱ n]	/kfip/	"hill"
[gvé ⁱ n]	/gveŋ/	"farm"

5.3 Processes determined by the position in the syllable

5.3.1 The tense low front vowel and the tense rounded back vowel become lax in a closed syllable. The central phone [ə] is fronted when following a coronal consonant. See examples.

/e/ → [ɛ] / Ccoronal - C	[tém], /tem/ "clear"
→ [ə] / C - C	[kél], /kel/ "fufu basket"
→ [e] / __	[bē], /bè/ "say"
/o/ → [ɔ] / C - C	[ból], /bol/ "soft"
→ [o] / __	[bó], /bo/ "weave"

5.3.2 There is a neutralization of contrast in the syllable final position in that the [n] never occurs in the syllable coda but the [ŋ] is frequently realized in that position following the simple syllable nucleus. Weaker allophones are more likely to occur in the final position. [ŋ] will be considered as an allophone of /n/ in the syllable final position after a simple syllable nucleus. See also 6.2.

/n/ → [ŋ] / _ \$	[i.bāŋ], /iban/	"redness"
→ [n] / _	[bēn], /bēn/	"year"

5.3.3 The velar stop becomes [?] in syllable final position except after /i/. [?] only occurs syllable final, but never after [i], and [k] occurs syllable initial but final only after [i]. There is a neutralization of contrast after [i].

/k/ → [?] / _ \$ except after /i/

5.4 Free variation

For many speakers of the language there is free variation of allophones in one or more phonologically predictable environments.

The alveopalatal continuants move farther back when followed by certain labials, the high unrounded back vowel or the coalesced phone [ü].

/s/ → [s] ~ [ʃ] / _ f, _ w	[sfis] ~ [ʃfis]	"spill"
→ [s] / _	[isuā'ti] ~ [ʃsuā'ti]	"rags"
/si/ → [si] ~ [ʃi] / _ i	[siʃi] ~ [ʃiʃi]	"rush"
→ [si] / _		
/z/ → [z] ~ [ʒ] / _ iu	[züt̩i] ~ [ʒüt̩i]	"kill"
→ [z] / _		
/y/ → [y] ~ [ʒ] / _ i	[yi] ~ [ʒi]	"eat"
[y] / _		

There is variation between the labiodental segments and the labial approximant before certain stops. The preferred form by native speakers is the dental form.

/f/ → [f] ~ [v] / k_, t_	[kfvi] ~ [kv̩i]	"harvest"
[f] / _	[f.tfāŋ] ~ [f.tuāŋ]	"steep hillside"
/g/ → [g] ~ [ɣ] / g_	[gvi] ~ [ɣvi]	"come"
[g] / _		

6. Morphophonemics

6.1 Transformation of alveolar continuant

The alveolar continuant syllable final is subject to change when it is followed by the suffix /-t̪/, /-s̪/, /-n̪/, or /-l̪/. A transformation occurs when the root combines with the suffix to form the phonological word. See examples below.

[lá.lá], "to delay" + [-t̪] → [láⁱ.t̪], "to delay a bit"

the [l] is transformed into a syllabic element resulting in a complex syllable nucleus. See other examples below.

[mbàl], "mask" + [-s̪] → [mbàⁱ.s̪], "masks"

[ból], "soft" + [-n̪] → [bóⁱ.n̪], "not too soft"

[yēs], "sweep" + [-l̪] → [yéⁱ.l̪], "touch lightly"

In each case the suffix serves to change the meaning of the word slightly, acting as a diminutive or pluralizer. The offglide will be considered as a part of a complex syllable nucleus in these cases.

Compare with the following. Note there is no change.

[lám], "stir" + [-t̪] → [lám.t̪], "stir a bit"

6.2 Transformation of palatal nasal

When the palatal nasal, /ɲ/, is followed immediately by a vowel, as a grammatical marker, the nasal is changed. The palatal nasal becomes an alveolar nasal, [n], as shown below:

/bèns̪i/ [bèⁱn.s̪i], "turn over"

/bèn ndzís̪i/ [bè n ndzís̪i], "turn clothes inside out"

/bena/ [bè.nā], "turn it inside out!"

/bèn/ + /-a/ → [bènā], /-a/ marks the incompletive mode

6.3 Transformation of labial

The allophone [p] does not contrast with [f] and [b] therefore partial overlap could be considered, that is, [p] could be an allophone of both phonemes in different environments.

Morphophonemically /f/ seems to be the underlying form.
See examples below.

/cof/, [cōf], "sharpen" /coft̪/, [cōp.t̪], "sharpen a bit"

/bif/, [bīf], "ask" /bift̪/, [bīp.t̪], "ask many"

/kaf/, [kāf], "scratch" /käft̪/, [kāp.t̪], "scratch a bit"

/diēf/, [diēf], "long" /diēfl̪/, [diēb.l̪], "long (plural)"

/f/ → [p] / - [-cont]

[b] / - [-cont][+voiced]

6.4 Labialization in plurals

The introduction of the segment [i], as a plural prefix results in a phonological change with certain noun classes, serving to labialize the word. This is true of class 8 nouns. See also 7.1.

[ā.bāⁱn], "fufu" + [i], plural marker → [i.buāⁱn], /ibuan/

6.5 Reduplication

In order to emphasize the ongoingness of an activity, the verb is reduplicated.

/Wū n-bei?li bei?li iwe/ lit. "He is selling selling in the market."

/Wū n-buni būni/ lit. "She is sleeping sleeping."

7. Phrase-level features

7.1 Labialization

The introduction of the segment [i] as a grammatical concord marker results in labialization on the phrase level. This is true for adjectival phrases involving class 1 and class 8 nouns.

[i.wūⁱn], "body" + [tō], "strong" → [i.wūⁱn i tuō]
/iwun i tuo/, "good health"

[wūl], "person" + [kā], "which" → [wūl i kfā], /wul i kfā/,
"which person"

[wūl], "person" + [lī], "other" → [wūl i lvī] ~ [wūl i luī],
/wul i lvi/, "another person"

7.2 Coalescence

There is a coalescence of certain phonological elements at the phrase level which results in the phone [æ]. See examples below.

/isas i ndo/, "family" = /isas/, "bottom" + /ndo/, "house"
/isas i ndo/ → [i.sā ndō]
/s/ ↓, /a/ + /i/ → [æ]

/yeli yi a/, "people which" = /yeli/, "people" + /yi/,
"that" + /a/, "it"
/yeli yi a/ → [yé.li yā]
/i/ + /a/ → [æ]

/i yi asi i/, "first" = /i/, concord marker + /yi/, "it" +
/asi/, "eyes" + /i/, concord
/i yi asi i/ → [iyā.si]

/ngvi zi a/, "chicken which" = /ngvi/, "chicken" + /zi/,
"that" + /a/, "it"
/ngvi zi a/ → [ngvī zā]
/i/ + /a/ → [æ]

8. Tone

There are eight phonetic pitches, three level and five contour tones, which have a lexical function. See appendix.

level: high, mid, low

contour: low-falling, high-low, high-mid, mid-high, mid-low

The contours mid-high and mid-low are rare and only occur in phrases as a result of tone modification within the phrase.

A low tone is realized as a falling tone utterance final as is the case with most African languages. This feature is overruled when there is a floating high tone which follows the low tone.

/wà ni ni gà./, "What did you do?"

/gà./ has a falling tone that becomes noticeable lower than the other low tone syllables

Evidence of downstepped tone can be seen in the associative construction. For some noun classes, there is no segmental associative marker, just a floating low tone morpheme, and this results in a downstepped high tone, as follows:

[ñ.dōŋ], "horn" + [bz̩], "goat" →
[ñ.dōŋ bz̩], "the horn of the goat"

L,M + L + H → L,M !H

[E.wūⁱn], "skin" + [bz̩], "goat"
[E.wūⁱn bz̩], the skin of the goat"

M,HM + L + H → M,HM !H

Tone has a grammatical function of indicating tense as shown below. The difference between today's past tense and the near future tense is marked by tone. Note that the low tones in the past tense verb phrase change to mid and falling tones in the future tense verb phrase.

/Wù ní kási gvi nínciú./ "He came back today at night"]
[he past return come night]

/Wu ní kasi gvi a ciusí bò/ "He will come back at 2 o'clock"
[he future return come hours two]

The verbs fall into two categories according to tone: high tone verbs and low tone verbs. The high tone verbs carry a mid tone in the infinitive form for one syllable verbs and for two syllable verbs the first syllable has a mid tone and the second syllable has a high tone. Low tone verbs have low tone on both syllables.

/sì yep/	[sì yé̩n]	"to see"
/sì fu/	[sì fü]	"to give"
/sì tanjì/	[sì tā.ŋjì]	"to speak"
/sì buni/	[sì bù.ní]	"to sleep"
/sì cuoti/	[sì cuō.tí]	"to beg"
/sì gvi/	[sì gvi]	"to come"
/sì bë/	[sì bë]	"to say"
/sì lësì/	[sì lè.sì]	"to forget"
/sì cintì/	[sì ci̩ntí]	"to come together"

9. Residue

9.1 Coalescence

The three phones, [æ], [ü], and [œ], could be considered as phonemes if there was no VV syllable nucleus. Words such as /beikli/, [bēi?.lī], "sell" provide evidence for a VV syllable nucleus, however, there are few examples of this syllable type.

9.2 Nasalization

The nasalized consonants have been considered as a sequence of two consonants, rather than one prenasalized consonant. A whole set of prenasalized consonant phonemes is possible but would not be in keeping with the principle of economy, keeping the number of phonemes to a minimum.

9.3 Palatalization and labialization

A set of palatalized consonants and a set of labialized consonants could have been posited but this would not be in keeping with the principle of economy mentioned above. The palatalized and labialized consonants have been written as a sequence of two, a consonant plus a vowel. They could have been written as two consonants, /Cw/ and /Cy/, but this would have resulted in more complicated syllable patterns, whereas /Cu/ and /Ci/ correspond nicely to the established syllable patterns. See 9.1.

9.4 Syllabic nasals

It is difficult to distinguish between syllabic nasals and those nasals that are the first element in a consonant cluster, and thus, non-syllabic. For example:

/mbam/ [m.bām] "snake" cf. /nkuo/ [nkuō] "basket"

There is a series of nominalized verbs that relate to this issue:

[sé], "sharpen" [ān.sé], "something to sharpen with"
 [kí], "look at" [ān.kí], "mirror"

native speaker reaction to syllable division in the above examples conflicted with this analysis (they favored [ā.nsé]).

9.5 Miscellaneous

structure of /kuisi/, "force s.o.", is ambiguous; it could be [kú¹.sí] or [kwi.sí].

[biém], "hunt", palatalization of [b] should be [b̩] not [bil]

10. Appendix

10.1 Presentation of phonemes

- /b/ labial stop; medium frequency; [b]
[b/v], [bz̩], "goat", [vz̩], "that, cl1";
[b/w], [b̩w], "soft", [wúl], "man";
[b/f], [b̩f], "dog", [f̩], "it, cl19"; no contrast syllable final;
- /d/ voiced alveolar stop; low frequency; [d]
[d/t], [d̩wáñ], "childless", [túm], "send";
[d/j], [d̩.lá], "gown", [ján], "castor oil bean";
- /j/ voiced palatal stop; medium frequency; [j]
[j/c], [jí], "road", [cí], "pass the night"
[j/z], [jvá], "stream", [zvá], "thatch"; [zí], "enter";
[j/s], [jí], "road", [sí], "so"
[j/y], [ā.jén], "entrance", [ā.yéš], "broom"
- /g/ voiced velar stop; high frequency; [g]
[g/k], [giá], "voice", [kiá], "know"
[g/γ], [giá], "voice", [γiá], "your, cl2"
- /t/ voiceless alveolar stop; high frequency; [t]
[t/c], [t̩.mí], "stand", [c̩.lí], "brave"
[t/?], [tsí.t̩], "this, cl13", [di?.í], "sit"
[t/ti], [tám], "wear loincloth", [tiá.t̩], "your, cl13"
[t/ts], [t̩.mí], "stand", [ts̩], "smithing"
- /c/ voiceless palatal stop; medium frequency; [c]
[c/ts], [c̩.lí], "brave", [tsí.t̩], "this, cl13"
[c/ti], [cá], "carry w/ease", [tiá.t̩], "your, cl13"
[c/s], [cá], "carry w/ease", [sá], "gain"
[c/z], [c̩.lí], "brave", [zí], "enter"
[c/y], [cēn], "dance", [yēm], "my, cl9"
- /k/ voiceless velar stop; high frequency; /k/ → [?]/\$_
[k,?], [mbvík], "anthill", [mbé?], "shoulder"; [k] occurs only after [i] syllable final; [?] occurs only syllable final after all vowels except [i]; neutralization of contrast after [i]
[k/γ], [ā.kás], "metal", [ā.yál], "dung"
- /v/ voiced labial fricative; medium frequency; [v]
[v/f], [ā.ff], "medicine", [ā.vf], "foot"
[v/w], [ā.vf], "foot", [ā.wá], "hailstone"
- /z/ voiced alveolar fricative; high frequency; [z], [ʒ]
[z/s], [z̩], "that, cl5", [s̩], "to"; [zü.t̩] ~ [ʒü.t̩], "kill"
[z/y], [z̩], "that," [y̩], "eat"; [y̩] ~ [ʒ̩], "eat"
/z/ → [z] ~ [ʒ] / _iu; /y/ → [y] ~ [ʒ] / _i
- /γ/ voiced velar fricative; low frequency; [γ]
[γ/w], [γá], "what", [wá], "you"
[γ/y], [γéš], "we, excl", [yé.sí], "our, cl4,5"
- /f/ voiceless labial fricative; high frequency; /f/ → [b] / _Cvd
→ [p] / _Cvl
[f/w], [fú], "give", [wú], "he, she"
free variation between [kfV], [gvV] and [kuV], [guV] some words

- /s/ voiceless alveolar fricative; high frequency; [s], [ʃ]
 [ʃ] only occurs in variation with [s] and [si]; [sifŋ] ~ [ʃifŋ], "rush", [sfifɪs] ~ [ʃfifɪs], "spill", [ʃ.suā?.tɪ] ~ [ʃ.suā?.tɪ], "rag"
- /m/ labial nasal; high frequency; [m]
- /n/ alveolar nasal; high frequency; [n], [ñ]
 [n/ñ], [ná], "mother", [nám], "pinch", neutralization of contrast syllable final; /n/ → [ñ] / _\$
- /ɲ/ palatal nasal; medium frequency; [ɲ]
 [n/n], no contrast; [ɲ] syllable initial is the realization of /ni/; [ɲ] syllable final contrasts with [ñ]; /ɲ/ only occurs final [ã.bán], "fufu", [I.bán], "redness"
- /ɳ/ velar nasal; medium frequency; [ɳ]
 /ɳ/ only occurs syllable initial; final is an allophone of /n/
- /w/ labial approximant; medium frequency; [w]
- /l/ alveolar approximant; high frequency; [l]
- /y/ palatal approximant; medium frequency; [y]
- /i/ high front vowel; high frequency; [i], [í]
 [i/í], [tí], "stand", [tí.mi], "stand up"; /i/ → [í] / word medial [i/í], [bi], "get done", [bí], "dog"
- /e/ low front vowel; high frequency; [e], [ɛ], [ə]
 [e/ɛ], [té], "insult", [té.m], "clear"; /e/ → [ɛ] / Calv_C [e/ə], [bè], "say", [bán], "year"; /e/ → [ə] / C_C
- /í/ high back unrounded vowel; very high frequency; [í]
 [í/í], [bí.sí], "dogs", [tí.mi], "stand up"
 [í/ə], [ním.lí], "smile", [ním.sí], "handle with care"
 [í/a], [gví], "poisonous drug", [gvá], "grind"
 [í/u], [ní], "with", [nú], "fight"
- /a/ low back unrounded vowel; high frequency; [a]
 [a/ə], [I.bán], "redness", [bén], "year"
 [a/o], [mbán], "walking stick", [mbón], "ox"
- /u/ high back rounded vowel; high frequency; [u]
 [u/o], [tú], "fetch water", [tó], "strong"
- /o/ low back rounded vowel; medium frequency; [o], [ɔ]
 [bó], "weave", [ból], "soft"; /o/ → [ɔ] / C_C

10.2 Presentation of tone

The following contrastive examples are taken from Kom language text files and therefore the tonal patterns may have been conditioned by the pitch of the surrounding segments.

- high; [á]
 [high/mid], [I.ncó?], "a fowl", [ntó?], "palace"
 [high/low], [bá], "loss", [bà], "father"
 [high/low-fall], [á.ci], "life", [ncí], "guardian"
 [high/high-low], [á.bás], "lizard", [á.bás], "half"
 [high/high-mid], [I.luám], "fallow", [I.duám], "a tree"
 [high/mid-high], [á.ci], "life", [ncí], "fon's house"
- mid; [ä]
 [mid/low], [ntüm], "message", [ncüm], "drum"
 [mid/low-fall], [mbás], "charm", [mbás], "vegetables"
 [mid/high-low], [ndí], "insult", [fí.ndí], "soot"
 [mid/high-mid], [ndvíš], "a drum", [I.víš], "fire"
 [mid/mid-high], [mbé.tí], "caterpillar", [mbé], "a cut"
 [mid/mid-low], [mbé.tí], "caterpillar", [bé.sí], "save"

low; [à]
[low/low-fall], [bò], "two", [bò.], "bag"
[low/high-low], [bò], "two", [bô], "lord"
[low/high-mid], [njàm], "axe", [ján], "castor oil bean"
low-falling; [à.]
[low-fall/high-low], [bò.], "bag", [bô], "lord"
[low-fall/high-mid], [àn.sòn.], "mouse", [i.sòn.], "tooth"
[low-fall/mid-high], [ncì.], "guardian", [ncí], "fon's house"
high-low; [â]
[high-low/high-mid], [f.luô], "bridge", [f.luô], "a tree"
[high-low/mid-high], [i.bâ], "being saved", [mbé], "a cut"
[high-low/mid-low], [i.kiû.sî], "discouraging words", [kiû.sî],
"discourage"
high-mid; [á]
[high-mid/mid-high], [á.wâ], "hailstone", [mbé], "a cut"
mid-high; [á]
[mid-high/mid-low], [mbé], "a cut", [bâ.sî], "save"
mid-low; [ã]

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10.4 Wordlist

/a/	[ā]	'it'	/cofti/	[cōp.tí]	'sh. a bit'
/aban/	[ā.bai̯n]	'fufu'	/con/	[cōn]	'steal'
/afi/	[ā.fí]	'medicine'	/cuō/	[cuō]	'pass'
/abvi/	[ā.bví]	'ashes'	/cuoti/	[cuō.tí]	'beg'
/afief/	[ā.fiéf]	'wind'	/cuisi/	[cū.sí]	'hours'
/ayál/	[ā.yál]	'dung'			
/ajen/	[ā.jén]	'entrance'	/dàla/	[dà.lá]	'gown'
/akas/	[ā.kás]	'metal'	/dial/	[diál]	'showy'
/alam/	[ā.lám]	'workshop'	/diànsi/	[diān.sí]	'cross over'
/amuak/	[ā.muā?]	'dew'	/dièf/	[dièf]	'long, sg'
/änfim/	[ä.nfím]	'a beetle'	/dièflí/	[dièb.li]	'long, pl'
/änlè/	[än.lè]	'loss'	/dièn/	[dièn]	'show'
/änsön/	[ä.nsön]	'a mouse'	/diim/	[diím]	'play'
/änsi/	[ä.n.sí]	'sifter'	/diki/	[di?í]	'sit'
/äntim/	[ä.ntím]	'heat'	/dùm wàn/	[dùm wà̯n]	'childless'
/atam/	[ä.tám]	'elephant'	/dví/	[dví]	'many'
/atu/	[ä.tú]	'head'	/dzisi/	[dzí.sí]	'make cry'
/atünlí/	[ä.tün̯.lí]	'ear'			
/avi/	[ä.ví]	'foot'	/fan/	[fā̯n]	'be afraid'
/avif/	[ä.víf]	'bone'	/fe/	[fē]	'fall'
/awio/	[ä.wé]	'hailstone'	/fief/	[fiéf]	'blow'
/ayes/	[ä.yés]	'broom'	/fiel/	[fiél]	'stagger'
/aziu/	[ä.zü]	'nose'	/fiep/	[fié̯n]	'weave'
			/figvíf/	[fi.gvíf]	'a bat'
/bè/	[bè]	'say'	/fikák/	[fi.kák]	'tree'
/befsi/	[bēp.sí]	'destroy'	/filik/	[fi.lík]	'smoke'
/beikli/	[bēi.lí]	'sell'	/fincià/	[fi.ncià]	'bow'
/bèn/	[bèn]	'year'	/fingvan/	[fi.ngván]	'salt'
/bèn/	[bèn]	'turn around'	/finján/	[fi.nján]	'a game'
/bènsi/	[bè̯nsí]	'turn over'	/finjén/	[fi.njén]	'star'
/biem/	[biém]	'hunt'	/finsuo/	[fi.nsuō]	'sm basket'
/bi/	[bí]	'dog'	/fíniú/	[fi.nü]	'knife'
/biès/	[biès]	'open'	/fises/	[fi.sés]	'louse'
/bíf/	[bíf]	'ask'	/fsí/	[fsí]	'take'
/bifti/	[bífp.tí]	'ask many'	/fu/	[fú]	'give'
/bísí/	[bí.sí]	'dogs'			
/bo/	[bó]	'weave'	/gèli/	[gè.li]	'carry'
/bò/	[bò]	'lord'	/gia/	[giá]	'voice'
/bò/	[bò]	'two'	/gùf/	[gùf]	'pull'
/bol/	[bó̯l]	'soft'	/guò/	[guò]	'divide'
/bolni/	[bó̯.nì]	'a bit soft'	/gva/	[gvā]	'grind'
/buni/	[bù.ní]	'sleep'	/gvèl/	[gvèl]	'fell tree'
/bvisi/	[bví.sí]	'spray'	/gven/	[gvé̯n]	'farm'
/bzí/	[bzí]	'goat'	/gvi/	[gvi]	'come'
			/gví/	[gví]	'poison'
			/gví.mi/	[gví.mi]	'bury'
/cai/	[cái]	'carry'			
/cen/	[cēn]	'dance'			
/cfa/	[cfá]	'move'	/yà/	[yà]	'what'
/cfí/	[cfí]	'spit'	/yeli/	[yé.lí]	'people'
/cfín/	[cfín]	'tie'	/yes/	[yé̯s]	'we, excl'
/ci/	[cí]	'stay night'	/yía/	[yíā]	'your 2'
/cieksi/	[cié̯.sí]	'wipe'			
/cili/	[ci̯li]	'brave'	/iban/	[i.bán]	'redness'
/cinti/	[ci̯n.tí]	'meet'	/ici/	[i.ctí]	'sun'
/cof/	[cōf]	'sharpen'	/ifi/	[i.fí]	'leaf'

/iyan/	[i.yán]	'root'	/kam/	[kām]	'squeeze'
/iyen/	[i.yéñ]	'breast'	/kan/	[káñ]	'monkey'
/ilak/	[i.lá?]	'country'	/kási/	[ká.sí]	'return'
/ilemi/	[i.lém.i]	'tongue'	/kel/	[kél]	'a basket'
/incok/	[i.ncó?]	'bush fowl'	/kfa/	[kfā]	'go home'
/infük/	[i.nfú?]	'grass'	/kfäkti/	[kfä?.tí]	'think'
/isas/	[i.sás]	'bottom'	/kfè/	[kfè]	'cook'
/isi/	[i.sí]	'eye'	/kfi/	[kfi]	'harvest'
/iso/	[i.só]	'fat'	/kfí/	[kfí]	'die'
/ison/	[i.són]	'tooth'	/kfíñ/	[kfíñ]	'hill'
/iton/	[i.tón]	'navel'	/kiá/	[kiá]	'know'
/ivi/	[i.ví]	'rain'	/kiati/	[kiá.tí]	'immune'
/ivíl/	[i.víl]	'feather'	/kín/	[kín]	'want'
/ivím/	[i.vím]	'ten'	/kuisí/	[kúi.sí]	'force s.o.'
/iwo/	[i.wó]	'wing'	/láli/	[lá.li]	'rise up'
/iwon/	[i.wón]	'spear'	/lam/	[lám]	'stir'
/iwum/	[i.wúm]	'egg'	/lamti/	[lám.tí]	'stir a bit'
/izin/	[i.zíñ]	'name'	/len/	[lén]	'strike'
/ibuaj/	[i.buáñ]	'fufus'	/lësi/	[lë.sí]	'forget'
/icfi/	[i.cfí]	'mouth'	/li/	[li]	'other'
/iduam/	[i.duám]	'a tree'	/liati/	[liá.tí]	'surround'
/ifi/	[i.fí]	'hoe'	/lù/	[lù]	'leave'
/ifian/	[i.fiáñ]	'valley'	/lum/	[lüm]	'bite'
/ifuen/	[i.fuéñ]	'leg'	/mbam/	[mbám]	'snake'
/ifuo/	[i.fuó]	'things'	/mbák/	[mbà?]	'cloud'
/ijvin/	[i.jvín]	'entrance'	/mbál/	[mbál]	'mask'
/ikio/	[i.ké]	'arm'	/mbálsí/	[mbá.sí]	'masks'
/iluam/	[i.luám]	'fields'	/mbán/	[mbán]	'walk stick'
/iluen/	[i.luén]	'bamboo'	/mbás/	[mbás]	'vegetables'
/iluô/	[i.luô]	'bridge'	/mbe/	[mbé]	'hammer'
/ilvâ/	[i.l.vâ]	'stomach'	/mbék/	[mbé?]	'shoulder'
/imbuòl/	[i.mbuòl]	'tadpoles'	/mbí/	[mbí]	'evil'
/imual/	[i.muál]	'scars'	/mbío/	[mbí]	'a cut'
/imuep/	[i.muéñ]	'a worm'	/mböiní/	[mböi.ní]	'peace'
/inkák/	[iñ.ká?]	'firewood'	/mbon/	[mböñ]	'ox'
/inkún/	[iñ.küñ]	'tail'	/mbük/	[mbük]	'jigger'
/itfân/	[i.tfán]	'steep hill'	/mbvík/	[mbvík]	'anthill'
/itual/	[i.tuál]	'numb limb'	/mbzí/	[mbzí]	'world'
/ituek/	[i.tuë?]	'piles'	/miá/	[miá]	'your 6a'
/ituo/	[i.tuó]	'hut'	/miél/	[miél]	'take some'
/isuákti/	[i.suá?.tí]	'rag'	/miëltí/	[mië.tí]	'take a bit'
/ivis/	[i.vís]	'fire'	/míjuo/	[mí.juō]	'a juju'
/iwuj/	[i.wúñ]	'skin'	/mílük/	[mí.lü?]	'wine'
/iyuansi/	[i.yuán.sí]	'sugarcanes'	/mílùn/	[mí.lún]	'blood'
/jan/	[jän]	'castor bean'	/mínji/	[mí.njí]	'urine'
/jèl/	[jél]	'walk'	/mítù/	[mí.tú]	'intestines'
/jen/	[jén]	'hunger'	/mu/	[mú]	'water'
/ji/	[jí]	'path'	/mul/	[múl]	'swell'
/jva/	[jvá]	'stream'	/mzi/	[mzi]	'swallow'
/kà/	[kà]	'which'	/nà/	[nà]	'mother'
/kâf/	[kâf]	'armpit'	/ncak/	[ncâ?]	'prison'
/kâf/	[kâf]	'scratch'	/ncen/	[ncéñ]	'bottle'
/käfti/	[káp.tí]	'scr. a bit'	/nci/	[ncí]	'guardian'
/kai/	[kæ]	'four'	/ncini/	[ncí.ní]	'character'

/ncíl/	[ncíl]	'lid'	/sai/	[sá]	'gain'
/ncùm/	[ncùm]	'drum'	/sfí/	[sfí]	'fish'
/nde/	[ndé]	'seed'	/sfís/	[sfís]	'spill'
/ndi/	[ndí]	'insult'	/si/	[sí]	'so'
/ndo/	[ndö]	'house'	/siasi/	[siaá.sí]	'your 10'
/ndon/	[ñdöñ]	'horn'	/siëmsí/	[siäm.sí]	'tilt'
/ndvís/	[ndvís]	'a drum'	/siñ/	[siñ]	'rush'
/ndú/	[ndù]	'go'	/sí/	[sí]	'to'
/ndzisi/	[ndzí.sí]	'clothes'	/sù/	[sù]	'wash'
/nfama/	[ñfá.má]	'eight'			
/ngàn/	[ngàn]	'medicine'	/tal/	[tá]	'three'
/ngè/	[ngè]	'deer'	/tam/	[tám]	'wear cloth'
/ngek/	[ngé?]	'trouble'	/tan/	[tán]	'fly'
/ngí/	[ngí]	'kettle'	/tán/	[tán]	'five'
/ngòk/	[ngò?]	'stone'	/tan/	[tán]	'count'
/ngùm/	[ngùm]	'porcupine'	/tanji/	[tā.ní]	'speak'
/ngví/	[ngví]	'visitor'	/te/	[té]	'to insult'
/ngví/	[ngví]	'chicken'	/tem/	[té]	'clear'
/ni/	[ní]	'do'	/tfís/	[tfís]	'scatter'
/niák/	[ná?]	'write'	/timi/	[tí.mi]	'stand'
/niam/	[nám]	'animal'	/tiati/	[tiá.tí]	'your 13'
/niemsí/	[ném.sí]	'handle'	/tíci/	[tí.ci]	'sticks'
/niím/	[ním]	'smile'	/tsí/	[tsí]	'smithing'
/niímlí/	[ním.lí]	'smile a bit'	/tsíp/	[tsíp]	'push'
/niòk/	[nò?]	'burn'	/tsiti/	[tsí.tí]	'this 13'
/nion/	[nöñ]	'suck'	/to/	[tó]	'strong'
/nios/	[nöñs]	'smash'	/tu/	[tú]	'get water'
/niünsí/	[nün.sí]	'hair'	/tum/	[tüm]	'send'
/ní/	[ní]	'with'			
/ninciú/	[ní.ncü]	'night'	/visi/	[ví.sí]	'let go'
/njí/	[njí]	'sheep'	/vzi/	[vzí]	'that 1'
/njon/	[njöñ]	'moon'			
/njuò/	[njuò]	'meat'	/wá/	[wá]	'you'
/nkef/	[nkéf]	'awhile'	/wan/	[wá.n]	'child'
/nkfè/	[nkfè]	'a cook'	/woñ/	[wó.n]	'children'
/nkfi/	[nkfi]	'rope'	/wù/	[wù]	'he/she'
/nki/	[nki]	'watcher'	/wul/	[wúl]	'person'
/nkín/	[nkín]	'boundary'			
/nkuf/	[nküf]	'barrel'	/yem/	[yém]	'sing'
/nkuo/	[nkuö]	'basket'	/yem/	[yém]	'my 9'
/nòk/	[nò?]	'one'	/yém/	[yém]	'wake up'
/nsak/	[nsä?]	'judgment'	/yen/	[yé.n]	'see'
/nse/	[nse]	'ground'	/yès/	[yès]	'sweep'
/nsiín/	[nsiín]	'hangar'	/yesi/	[yès.il]	'our 4,5'
/nsombô/	[ñsöñm.bô]	'seven'	/yèsli/	[yé.li]	'touch'
/ntál/	[ntál]	'pride'	/yi/	[yí]	'it 9'
/nten/	[nté.n]	'a tadpole'	/yi/	[yí]	'eat'
/ntfíl/	[ntfíl]	'a society'	/yun/	[yuñ.n]	'buy'
/ntòñ/	[ntòñ]	'pot'			
/ntòñsí/	[ntòñ.sí]	'pots'	/ziâ/	[ziâ]	'your 4,5'
/ntsí/	[ntsí]	'blacksmith'	/ziu/	[zü]	'kill'
/ntufa/	[ntú.fá]	'six'	/ziutí/	[zü.tí]	'kill'
/ntum/	[ntüm]	'message'	/zí/	[zí]	'enter'
/nù/	[nù]	'fight'	/zí/	[zí]	'that 9'
/nvi/	[nvi]	'drink'	/zva/	[zvá]	'thatch'
			/zvi/	[zví]	'hear'
/njam/	[njám]	'pinch'	/zvítí/	[zví.tí]	'listen'
/nuákli/	[nuá?.lí]	'book'			