

## NOTES TOWARDS A DESCRIPTION OF TEKE (GABON)

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### 1. Introduction

In this paper we are presenting the results of research done on a variety of Teke spoken in Gabon. The material is of a rather fragmentary nature, but as the departure of our informant<sup>1</sup> made it impossible to carry the investigations further, we have taken the decision to publish it here, in the hope that it may be of use to other researchers in this field.

### 2. Phonology

What is given here is the system that has been set up provisionally for transcribing the language. It aims to take into account all the phonemic distinctions and only these, but in fact there are some points of uncertainty and these are indicated in the appropriate places. Among them is the status of the prenasalized complexes, which have been treated as phonemes<sup>2</sup>.

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<sup>1</sup> Our informant's mother was Teke and it was chiefly with her that he spoke this language. He himself was born in Franceville. He also lived in Brazzaville and had spent five years in France, interspersed with visits to Africa. Apart from Teke, he also spoke Mbahoin, Obamba and Kikongo.

<sup>2</sup> There is a comment in the section on the morphology of the substantive on their behaviour in the noun classes. See 4.1.3.

## 2.1. Vowels

We propose a five-vowel system : /i e a o u/

ńsíná	'louse'	gábèlè	'thigh'	gábàgà	'wall'
gábóll	'lip'	ńgòndò	'moon'	gábúbú	'lion'

Phonetically, /a/ is realized as a fairly front variety of open vowel ; the mid vowels /e/ and /o/ are rather open, tending towards [ɛ, ɔ].

In nominal and verbal prefixes and as final in verbs, only three vowels occur, /e a o/.

Similarly, only three vowels are found in demonstratives, but they are /i a u/.

Length : There are two degrees of length in the radical :

gáfúlà	'to blow, whistle'	gáfúúlà	'to enquire'
gátúgà	'to insult'	gátúúgà	'to go out'
ntàll,	} 'bed'		
ntálí		ntààll	'snake'
mwòyl	'wakefulness'	mwòòyl	'belly'
gákàsà	'to get thin'	gákáàsà	'to dry' (+ tone
gákèsè	'to cut'	gákéèsè	'to look at' difference)

Vowel Harmony occurs. It has been observed in the following cases :

- i. The extension of the verb has the same vowel as the radical.
- ii. The final vowel of the verb is :

/-e/ after radical /-e-/  
 /-o/ after radical /-o-/  
 /-a/ after radical /-i-, -a-, -u-/

3 See explanation of tones in 3.2.1. (-LL, -HH).

gá-sélègè	'to arrange'
gá-kòlògò	'to lie down'
gá-yísìgà	'to teach'
gá-yàlàgà	'to sing'
gá-dùmùgà	'to fly'

- iii. Certain irregular singular/plural noun pairs may be the result of vowels harmony:

kúùlú mǐllí 'leg(s)'

In some cases,

mvùrù	bàrì	'man, people'
mwòll	myèll	'river(s)'
mwóll	myéll	'month(s)'

if vowel harmony is involved, as seems probable, it is in a more complex fashion.

- iv. Comparable to the last two examples are the following forms of the numeral 2 :

vwólè ~ bwólè	class 2
mwólè	class 6
yùwólè	class 10
dzýélè	class 4 et 8

Coalescence : If two vowels are contiguous at word juncture, the first (i.e. the word-final V) tends to disappear, the initial V of the second word remaining:

gádìb(á) ó wà	'to be silent' (shut the mouth)
wé kùn(l) àyè ?	'where are you going ?'

Devoicing : A final vowel is often devoiced, and may drop. (The preceding consonant may also be devoiced).

4 See list of abbreviations and signs at the end of the article.

## 2.2. Consonants

As there are restrictions on the distribution of consonants, and as our knowledge of the system as a whole is defective, we shall present the phenomena observed in three sections, according to place in the syllable and the grammatical category of the morpheme.

2.2.1. The list of consonants recorded in radical initial position is much the same for the verbs as for the substantives, with the exception of the prenasalized consonants, which are restricted to the substantives:

<u>Verbs and substantives</u>	<u>Substantives only</u> <sup>5</sup>
p t ts k m n ɲ	mp nt nk
b d dz (g)	mb nd ng
f s	mf ns
v l y w	mv nz

However, in the material we have, the following further limitations have been noted:

### - In the substantives:

- g occurs only in gágùgù 'toad' (?onomatopoeic), gágápà 'brawl' (where the /p/ is also exceptional for nouns) and gwǒgò beside kwǒgò 'arm' (where the /g~k/ would be originally prefixal; dzyǎlà was given as the plural, which suggests that the word is not understood in the system).
- v occurs only followed by w, in vwǒgǒ 'fear' (no NP, class not established).
- m occurs only in mááyì 'cat' (cl. 6, pl. áamááyì cl. 2) (but see 4.1.2).
- n is not recorded.

<sup>5</sup> See 4.1.3.

### - In the verbs:

g is not recorded.

### Initial consonants elsewhere:

Nominal prefixes have : l g N (prenasalized consonant)  
 Verbal prefixes: l g b m  
 Demonstrative prefixes : l k b m y w

Other words (examples) : v in ve 'good'  
 n in na 'with'  
 m in míní 'alone, unaided'.

Remark : y and w occur alone, as consonants, and following another consonant (where in syllable structure they are classed as semi-vowels). Before /u/ there was sometimes uncertainty as to whether [y] or [w] was heard. The combinations noted are:

	sb. and vb.	vb. only	sb. only
y	py, by, ly	tsy, ky, my	
w	tsw, kw, ɲw	fw, lw	bw, vw, nkɰ, ngw

### 2.2.2. Realization:

The notation given is phonemic. The main point to observe with regard to the phonetic values are:

v is bilabial, but unrounded, the contact being with the inner surface of the lips. /v/ was used in free variation with /b/ in the sequences /mv~mb, vw~bw/, in mvùru~mbùrù 'person', vwǒlè~bwǒlè 'two' (prefixal in both cases), but there appears to be opposition in vwǒ 'knee' and bwǒ 'brain' (with a peculiar /b/ -see below) -unless it is the same word, with 'skull' (not 'brain') as basic meaning.

g represents a voiced velar fricative [ɣ] when occurring alone and a voiced velar plosive [g] after a nasal.

- ts [ts] ~ [tʃ]  
 ds [dz] ~ [dʒ]  
 nk, nŋ [ŋk, ŋŋ]. [ŋ] was sometimes noted as an independent consonant, without plosive: provisionally, these forms have been classed as /ŋ/.
- mf, ns, nz have an homorganic plosive after the N [mpf, nts ~ ntf, ndz ~ ndʒ]. This notation was chosen (i) for economy (ii) because it preserves the "identity" of words with nasal NP (e.g. lá-sùgú ñ-sùgú 'noise(s)').
- tsw this notation has been adopted for a sound which it is difficult to identify: probably a labialised palatal affricate [cʷç]; it was recorded in the following words:
- ntswl 'fish', gátswā 'to bite', gatswā 'to pound',  
 tswl 'ear', gátswùgà 'to clean', gátswùsà 'to put',  
 ótswl 'head, arrowhead'.
- It contrasts with /ts/, as in gatsùgà 'to burn' (tr.)  
 w as "semivowel": what has been presented as a sequence Cw is frequently, in fact, a labialised consonant: gálwòdó 'to dream': [-lʷodo] with a close [o] (/l/ is found before /o/ without labialisation [yálóbò] 'to fish').
- Before /u/, /k/ is labialised: the labialisation has not been noted in this case.

Note: The letter *n* has been used here for the palatal nasal (instead of *ny*) partly because no check was made as to whether there was a distinction between [nj] and [n]; it avoids the sequence nyw in gānwā 'to drink' ([nʷa]). On the phonetic level, it can be followed by the palatal glide [j] (/y/): [yāñjā] 'to stir' (? two syllables), but this is also recorded as [yāñljā, -ñljā]. If one lists the consonants used in nouns separately, it avoids the necessity of including the semi-vowel sequences in the table (as /n/ was not found in isolation). On the other hand, with the solution adopted, /n/ would stand alone as a simple nasal phoneme (except for the "prefixal" /m/ in móáyì 'cat').

Length: A radical-initial consonant is sometimes distinctly long, whether in verbs or nouns. No system is apparent (but no investigation was made) and non-initial consonants were sometimes heard as long also. The transcriptions mark length perhaps more often for /y/ and /w/ than elsewhere. However, with class 5 nouns, where there is no prefix, an initial /b/ was generally long (and intoned) and had a peculiar (but non identified) quality - which did not seem to be present in the plural (cl.6), where there is a prefix. Examples are: bíí pl. ábí 'egg', bílílí pl. ábílí 'kola nut', bífí pl. ébí 'place'. This length is generally not marked, as the system is not understood.

### 2.2.3. Consonants occurring as C<sub>2</sub> of the radical:

Here the list is shorter but we are nonetheless still at a fairly phonetic level. It is not yet clear exactly how many phonemic distinctions there are and consequently how this series is to be related to the set of phonemes proposed above. (The problematic area is the dentals: see notes below on the phonetic realizations of these segments).

p	t(?)		m	n	
b	d		g	mb	nd
	s				ng
	l	y	w		nz
	r				
	c				

- d a rather relaxed sound, sometimes transcribed as [d], sometimes as [ð], (presumed to be free variants).
- t is perhaps only another variant of the above phoneme, being t lenis.
- r this symbol represents several "sounds", not well identified and provisionally taken as variants of one phoneme, and as distinct from the preceding unit(s): a sort of (?) alveolar flap, a (?) retroflex d, and an "ordinary" d (voiced plosive).

- r sometimes perceived as r, sometimes as l, probably distinct from the above.
- l probably an "ordinary" l, like initial l.
- g [g], [ɣ], [ʒ] (before [i]), were all noted.
- y there would appear to be an opposition between /g/ and /y/, as in ga-lígà 'to forbid', ga-líyà 'to lick'; but [ya-jlâ, ya-jljà, ya-jljà] seemed to be all possible for 'to get accustomed'.
- w is opposed to /g/ in gátúgà 'to insult', gátúwà 'to build', but both /w/ and /g/ were noted for 'to burn' [yátsùwà, yátsùgà, yátsùwà].
- p was found only in gágápà 'a brawl', and (if this is a single word) in ngápàlì 'now'.

### 3. Tones

There appear to be two level tones, H(igh) and L(ow), marked ' and ` , and two combinations of these, F(all) and R(ise), marked ^ and ˇ .

#### 3.1. Verbs

There are two main types, A: with L tone for the radical, and B: with H tone for the radical, as in:

gáblgà	'to borrow'	gábígà	'to bark'	
gáwùdà	'to pay'	gáwúúdà	'to twist'	} with length difference
gásùmà	'to drive in a stake'	gásúúmà	'to buy'	

The tone pattern for the verb as a whole is:

	TYPE A		TYPE B
<u>Infinitive</u>	H-L(L)L		H-H(L)L
	Prefix H (ga-)	Prefix	H (ga-)
	<u>Radical</u> L	<u>Radical</u>	H
	(Extension L)	(Extension	L)
	Final L	Final	L

	TYPE A		TYPE B
<u>Imperative</u>	L(L)H		H(L)L
	<u>Radical</u> L	<u>Radical</u>	H
	(Extension L)	(Extension	L)
	Final H	Final	L

That is to say, in the imperative, verbs of Type A have a different profile from that of the infinitive, whereas verbs of Type B have the same profile as for the infinitive. These patterns are maintained in monosyllabic verbs: Type A have L in the infinitive and Rising tone for the imperative; Type B have Falling tone in both infinitive and imperative<sup>6</sup>. Examples:

	<u>Infinitive</u>		<u>Imperative</u>
TYPE A	gádìbà 'to shut'	dìbá	'shut!'
	gádìblìà 'to open'	dìblìá	'open!'
	gávà 'to fall'	vǎ	'fall!'
	gáyè 'to go'	yě	'go!'
TYPE B	gábílà 'to pull out'	bílà	'pull out!'
	gátímìgà 'to jump'	tímìgà	'jump!'
	gádzâ 'to eat'	dzâ	'eat!'
	gásâ 'to do'	sâ	'do!'

#### 3.2. Substantives

For dissyllabic nouns (-CV(V)CV), five tone types were found, according to the tone of the radical and of the final (the prefix being the same in all types, viz. H in the elicitation form; it is not marked in the following examples, as our interest is in the other two syllables).

<sup>6</sup> The tones of other verb forms are given in 4.1.

- LL mpùgù 'village', nkàlà 'crab', lendèlì 'beard', gabèlè 'thigh', gabàgà 'wall', ndìgì 'friend', kàsà 'flea'.
- HL mpùgù 'bush rat', nkàlà 'anger', otùll 'smith', otímà 'heart', lelímì 'tongue', lampígì 'kidney', okáyì 'antelope'.
- LH gayèsí 'bone', gadìgì 'grass', ngàndú 'crocodile', nzìlá 'road', ngùyá 'boar', pààbí 'wing', mbìngá 'pigeon'.
- HH lakóró 'frog', awúbá 'lungs', lampíná 'peanut', nkúmú 'chief', nkígí 'neck', ndúgú 'pepper'.
- RL okùúú 'aged chief', tsùúú 'leaf', allímì 'singing', tùúgà 'father's sister', ?adzùúyì 'language, voice', ?kwògò 'arm', 'hand', dzyàlà (given as pl. of kwogo = hands).

### 3.2.1. Observations:

The five types given here were identified from the elicitation forms.

-LL, -HH: However, for the assignment of words to the -LL and -HH categories it is generally necessary to apply further criteria, as these two types fall together in certain contexts. In fact, the word-list elicitation gave a great number of substantives with -LL and extremely few with -HH; it was subsequently found that when some of these -LL words were in subject position or when they were followed by a demonstrative the tone pattern was -HH, whereas others remained -LL. In sentence-final position at least, then, the -HH pattern is not maintained<sup>7</sup>.

This lowering of the type -HH could explain certain anomalies found in derived forms: for example, the verb 'to

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<sup>7</sup> We did not have the opportunity, after this discovery, to apply the tests systematically to all the words listed as -LL. Consequently, not all words given here as -LL necessarily belong to this category - some will no doubt be assigned subsequently to the -HH type.

work' is gásàlà (radical H) and 'workman' was given as ósàlì but 'work' as ósàlà (radical L) (mé mì sá ósàlà 'I have finished the job'). The anomaly disappears if the word is of the -HH type, the lowering being due to context. Similarly, gáfùlà 'to blow', ófùlì 'one who blows', but ófùlà 'tempest', which gives ófùlá yù 'that tempest'.

It should be noted that in the imperative of the B-type verbs, where, from the evidence of the A-type (low radical), one is led to postulate an underlying \*HH, it is not LL but HL which occurs.

-LH: There is instability in certain words of this type, in that there was a difference between the singular and the plural, one being given with -LH and the other with -LL: lésògò 'liver', pl. nsògò, gákùlì 'hill', pl. ékùlì. There may be further rules to be discovered here.

-RL: There are few words of this type - all those recorded are given above. Most of them probably have a long V. The length in adzùú yì is not sure. kwogo (a tricky word) has also been transcribed with HL. The type would appear to correspond to the polysyllabic -LHL type (see 3.2.3.).

### 3.2.2. Monosyllabic Nouns: CV, -CV

It is not always easy to determine the tone of monosyllabic nouns, especially when there is no prefix (CV type). In this case, prefix-tone in fact seems to be present, producing a Falling tone on the radical (in elicitation form) for the L-type words, which is opposed to the H (or L: see below) of the H-type. In the corresponding plurals (with prefix), the two types appear respectively as H-L and H-H (>H-L). There are some words with H on a long vowel; these are at present grouped separately. There are also a few words with Rising tone (on a short vowel).

L, -L wúvò pl. áwvò 'knee', kô pl. ákò 'banana', ngà pl. ángà 'medecine-man', gábà 'fever', óngwò 'back', álà (pl.) 'lies', tswì 'ear'.

H, -H ókwí 'dead man', mvá~mvà 'dog', mfú~mfù 'a hair', nzó~nzò 'house', otí~otì 'tree'.

F, -F nkáà pl. ánkáà 'guinea fowl', ókíl 'eyebrow'.

R, -R bí pl. ábí 'egg', nzú pl. ánzú 'pot', ɔ́ywo 'arrow', gángǔ 'pig'.

L, H Here again, as with the dissyllabic nouns, our L list is relatively long, whereas the H list is almost non-existent, and most of the words in it were not consistently transcribed as H. It is probable that the H tone only appears in certain contexts and is lowered in others. All the monosyllables need to be subjected to the tests mentioned above.

F The vowel is generally long and may turn out to be a sequence of two tones at the phonological level. Three items raise further problems:

- ówò 'brain' may belong here, or under L - the initial consonant is long.
- The word for "sun" has F, but it was hard to transcribe and the phonological representation is therefore doubtful: phonetically there may be a semivowel or an unrounded back vowel or both ?[mwi, mui, mei]; there is a plural, in which the vowel is probably short and the consonant rather long [mí].
- The word óòti 'medecine', pl. áàti was recorded with F on the initial long vowel. This long vowel is a problem, for if the radical is of -CV structure (which would justify its inclusion here) why is the prefix long and the tone falling, and if the radical is -VCV, why does the prefix not begin with a consonant (mu- instead of o-) as is usual with V-initial radicals (see section 4.1.2.) ?

R Unlike the Falling tone, the Rising tone does not seem to be associated with a long vowel. In the case of the word gá-ngǔ 'pig' pl. éngǔ, the word for 'boar, wild pig', ngúyá, where the L-H tones are spread over two syllables, may throw light on the analysis of the Rising tone.

### 3.2.3. Polysyllabic Nouns: -CVCVCV

We have not many words in this category. They fall into three tone types:

-LLL gadìbìgì 'door', gabàlàgà 'male', gabùbùlù 'spider', gawàlàngò 'duck', gapàlààmpà 'lizard', mbònòngò 'aubergine'.

-HLL gakiðìgì 'heel', gakuðùgà 'old man'.

-LHL gatùngúlà 'basket', gambòmbòlò 'spinach', gasìsìml 'shadow'.

As with the dissyllabic and monosyllabic forms, the -LLL may hide some -H-H words.

3.2.4. A few other polysyllables are compounds and so do not come within the scope of the tone-type classification. We mention them here, however, as we have no section on word-formation in this article.

ósínzú	'potter' (gásà 'to make', nǔ 'pot')
ólúmánsúrú	'cock' (òlúml 'husband', nsúrú 'fowl')
ńzilánsìbí	'anus' (ńzilá 'road', nsìbí 'excrement')
épwámánzó	'doors' (épwà 'mouths', ńzó 'house')

There is reduplication, with inversion of tones, in kósókòsò 'cough, tuberculosis'.

## 4. Morphology

### 4.1. Substantives

The following table gives the main classes, paired as singular and plural, and arranged according to their supposed equivalence to Proto-Bantu classes. The Verbal Prefix and the Demonstrative are also given. There is some uncertainty as to the VP in the forms without a consonant. No attempt has been made to establish the class of "irregular" words (such as kwogo 'arm').

#PB	NP		Examples	VP		Demonstrative	
	sg.	pl.		sg.	pl.	sg.	pl.
1-2	o-	a-	okáatì oyìgà	ø', ?á-	bá-	yù/wù	bà
1N	N-	aN-	ntàbà, antàbà	ØN-	baN-	yù/wù	bà
3-4	o-	e-	otímà ongègì, éngègì	ø', ?á-	bé-/mé-	yù/wù	bì/mì
5-6	ø	a-	pààbí, apààbí byélé, abyélé	lá-	má-	lì	mì
7-8	ga-	e-	gabúbú, ebúbú gabàgà, ebàgà	gá-	bé-	kì	bì
9-6	N	aN-	nkígí, ankígí nsyéne, ansyéne	ø', ?é-	má-	yì	mà
11-10	la- laN-	N- N-	lasàll, nsàll lampíná, mpíná	lá-	ø'/é-	lì	yì

Table 1 : Nominal Classes.

4.1.1. Tones:

The tone of the nominal prefix is not specified as it varies according to the syntax. It is H in the elicitation form (word in isolation). What rules are known are given in section 5. The verbal prefix is H and the demonstrative is L.

Variants:

- a) For classes 7 and 11, the informant used sometimes ga- and la-, sometimes ge- and le-. The difference is perhaps dialectal. For class 8 he sometimes used he- instead of e-. He himself suggested that the difference was stylistic, he-being more "elevated" than e-.
- b) yu and wu appear to be in free variation as demonstratives for both classes 1 and 3. For class 4, bé- and mé- seem to be used indifferently as VP, and bi- and mi- as demonstrative. In class 9/10, whether paired as singular or plural, the VP was sometimes given as zero (beside é-). However, not many words of this (numerous) category were tested.

4.1.2. Comments:

\*Classes 1 and 3 fall together, as far as we know. \*Classes 9 and 10 coalesce, and \*class 9 pairs with \*class 6. The initial labial consonants which are missing in the NP in \*classes 1, 2, 3, 4, 6, 8 appear in the VP of the plural classes. In words beginning with a vowel (-VCV) the consonant of the NP remains: mwáaná, pl. báaná 'child', mwòll, pl. myèll (~ámwòll) 'river', mààlí 'oil', màlí má nàmà 'fat' ; 'man' is mvùrù, pl. bàrì. But such words tend to be re-analyzed, the nasal of the singular prefix being treated as initial of the radical, and a plural is formed by adding a prefix to the whole word, as in ámwòll above or in mwòyì pl. amwòyì 'belly'.

4.1.3. The prenasalized consonants: On the morpho-phonemic level, these raise a problem. In the singular classes 1 and 9 the nasal is retained in the plurals (classes 2 and 6) and preceded by the usual class prefix. The reasonable solution



would seem to be to treat them as part of a complex consonant, and therefore as radical-initial. They also occur after other prefixes (e.g. *gá-mpàlà* 'lizard', *ó-ngègì* 'chin'). It is for this reason that the clusters are given in the table of consonant phonemes. However, in the paired classes 11-10, there are two types: one in which the nasal occurs in both singular and plural (*lá-mpíná*, *mpíná* 'peanut(s)'; the other in which there is no nasal in the singular (*lá:sàll* 'worm'), so that the nasal found in the plural (*ń-sàll*) functions as prefix, not as part of a radical-initial complex consonant.

#### 4.2. Numerals

Two different systems of counting were obtained, the second being that normally used when counting objects.

4.2.1. The following numerals were elicited in isolation. In order to provide these forms (which have the prefix *o-* for 1 to 10 and for 100), the informant said that he had to think of "a group of -".

1	<i>ómó</i> (?-mò)	11	<i>kùml</i> <i>nòómó</i>
2	<i>oyúwólè</i>	12	<i>kùml</i> <i>nǎ dzě̀lè</i>
3	<i>ótárl</i>	13	<i>kùml</i> <i>nèétárl</i>
4	<i>ónà</i> (onnà)	14	<i>kùml</i> <i>nèénà</i>
5	<i>ótáánl</i> (?otáánl)	15	<i>kùml</i> <i>nèétáánl</i> (?)
6	<i>ósámínl</i>	16	<i>kùml</i> <i>nèésámínl</i>
7	<i>ónsàám</i>	17	<i>kùml</i> <i>nǎ nsàám</i>
8	<i>ómfwòmò</i>	18	<i>kùml</i> <i>nǎ mfwòmò</i>
9	<i>ówǎ</i>	19	<i>kùml</i> <i>nǎ wǎ</i> (?tone of na)
10	<i>okúúml</i>	20	<i>ekúúml</i> <i>dzyě̀lè</i> (kúúml, ? kumi)
		30	<i>ekúúml</i> <i>étárl</i>
100	<i>ónkàmà</i>	40	<i>ekúúml</i> <i>énà</i>
		50	<i>eejúúml</i> <i>étáánl</i>
		60	<i>ekúúml</i> <i>ésámínl</i>
		70	<i>ekúúml</i> <i>nsàám</i>
		80	<i>ekúúml</i> <i>mfwòmò</i>
		90	<i>ekúúml</i> <i>wǎ</i>

Looking at the numbers 13 to 19, we notice that *kuumi* takes no prefix, but that the second element (1-9) takes a prefix: (3-6) have the prefix of class 4, whereas (7-9) are apparently assigned to class 10 with NP  $\emptyset$  before N. In 30 to 90 there is the same distribution of prefixes (but *kuumi* is plural). Note the final H in *ekuumi* in (70-90). The V of *kuumi* is probably shortened when in combination, at least for the -teens; the tone is doubtful ( ' or ~ ) -the difference may be due to syntax.

The n in *ona* is distinctly long.

This system, obtained in isolation, can also be used for counting things:

<i>oyúwólè</i> <i>ántàbà</i>	'two goats' (a group of ...)
<i>otáánl</i> <i>á bàánà</i>	'five children' (? tone of baana)
<i>onsàám</i> <i>ákáárl</i>	'seven women'
<i>okúúml</i> <i>á bàánà</i>	'ten children'

4.2.2. In the other system, which the informant preferred, the numeral is placed after the noun. See table 2.

- i. For 1 and 3-6 it has the same prefix as the noun, with H tone. For 7-9 there appears to be no prefix; as to tone, there is a doubt: in two cases where the noun is believed to end on L (*ńtábà*, *ókáyì*) there seems to be a high tone, realised on this final V, but in two others (*bùbùlù*, *kàsà*) there is no H. The discrepancy is possibly due to errors of notation. Table 2. is given with the inconsistencies found in our notes.
- ii. For 'one', the informant preferred to use nothing, but he also gave -mo, with the class prefix of the noun.
- iii. 'two' has four different forms:
 

cl.2 has <i>vwólè</i> :	<i>átúll</i> <i>vwólè</i>	'two smiths'
cl.4, cl.8 have <i>dzyě̀lè</i> :	<i>ékáyí</i> <i>dzyě̀lè</i>	'two antilopes'
	<i>ébúbú</i> <i>dzyě̀lè</i>	'two lions'
cl.6 has <i>mwólè</i> :	<i>ábùbùlù</i> <i>mwólè</i>	'two spiders'
cl.10 has <i>yúwólè</i> :	<i>nkóró</i> <i>yúwólè</i>	'two frogs'

We counted no further than ten.

The verb 'to count' is *gátálà*.

	1-2 otúll/átúli 'smith'	1N-2N ntàbà/antàbà 'goat'	3-4 okáyí/ekáyí 'antelope'
1 (omó)	ótúll	ntàbá	ókáyí ókáyómo
2 (oyúwǒlè)	átúll vwǒlè	ántàbà vwǒlè	ékáyí dzyǒlè
3 (otárl)	átúll átárl		ékáy(i) étárl
4 (onná)	átúll ánnà		ékáy(i) énnà
5 (otaani)	átúll átaānl	ántábātaānl	ékáy(i) ʼétaānl
6 (osámlnl)	átúl(i) ásámlnl		ékáy(l) ʼesámlnl
7 (onsààml)	átúlínsààml	ántábánsààml	ékáyínsààml
8 (omfwòmò)	átúlí mfwòmò	ántábámfwòmò	ékáyímfwòmò
9 (owǎ)	átúlí wǎ	ántábá wǎ	ékáyí wǎ
10 (okúúml)	átúlí kúúml ? ?	ántábákúúml ?	ékáyíkúúml ?

7-8 gabúbú/ebúbú 'lion'	? 11-10 lakóró/nkóró 'frog'	5-6 bùbùlù/abùbùlù 'spider'	5-6 kàsà/akàsà 'flea'
gabùbù	lákóró lémó	ʼbùbùlù ʼbùbùlù lémó	kàsà kàsà lémó
ébúbú dzyǒlè	ńkóró yúwǒlè	ábùbùlù mwǒlè	ákàsà mwǒlè
ébúbú étárl	ńkóró tárl	ábùbùlù átárl	ákàsà átárl
ébúb(u) énnà	ńkóró nnà	ábùbùlù ánnà	ákàsà ánnà
ébúb(u) étaani	ńkóró taani	ábùbùl u átaani	ákàsà ataani
ébúb(u) ésámlnl	ńkóró sámlnl	ábùbùlù ásámlnl	ákàsà ásámlnl
ébúbú nsààml	ńkóró nsààml	ábùbùlù nsààml	ákàsà nsààml
ébúbú mfwòmò	ńkóró mfwòmò	ábùbùlù mfwòmò	ákàsà mfwòmò
ébúbú wǎ	ńkóró wǎ	ábùbùlù wǎ (?)	ákàsà wǎ (?)
ébúbú kuúml	ńkóró kúúml	ábùbùlù kúúml	ákàsà kúúml

Table 2 : Numerals Classes

## 4.3. Verbs

Not much is known about the conjugation of verbs. Attempts to elicit paradigms in relation to temporal situations were not fruitful - three "tenses" were used, a present/future, a past and a perfect. These same forms are found in random sentences taken down (often approximately) for other purposes.

Present tense: The final V is -a, with L tone. Apart from that, the pattern is not clear. In the paradigms, two types appeared, the difference affecting the first and second persons singular chiefly, and the second person plural. However, corresponding variations are found in examples with noun subjects. There is no great regularity - that is to say, various combinations were given. Different analyses seem to be involved: VP-à---à, VP-è---à, VP-ò---à. In the second person singular, VP may not apply.

An example of the two types is given as a paradigm, as well as a few examples of noun subjects and of sentences.

	qáìlìlâ 'to weep'	qátàngà 'to read'
1sg.	mâ lîlâ	mê tángà
2sg.	wě wǎ lîlâ	wê tángà, wé ǎ tángà (?)
3sg.	ndé â lîlâ	ndé â tángà
1pl.	bìsì lî lîlâ	bìsì lî tángà (bìsì lî ---)
2pl.	bé lî lîlâ	bé lî tángà
3pl.	bó bā lîlâ	bó bā tángà

(the segmentation is ad hoc, detaching the points of interest).  
The tone of the second person singular is uncertain.

òkáyì â bádà	'the antelope runs away'
qàbúbú qê bádà	'the lion runs away' (VP ga-)
èkáyì mē~bê bádà	'the antelopes run away'
mvùrù â bádà	'the man is running away'
māà pìsá wê, wě kúní lǐ	'I'm asking you where you were' (you where were)

In the following paradigm (not elicited directly as such) using an interrogative word, the -a- type only was used:

mé kùn(i) â yè	'where am I going ?'	bìs(i)âbé kùnì lî yè
wé kùn(i) â yè		bé kùnì lî yè
ndé kùn(i) â yè		bó kùnì bā yè

Future tense: The same forms (with the same variations) were used, the time being indicated by an adverbial:

mbàll ndé â yííqà	'to-morrow he will learn'
mé tsùgù límmà mǎ yà	'when shall I come ?' (I day which I come)

Past tense: The final is -i, with L tone. In front of the verb, as a paradigm, the forms were as for the present. Judging from the sentences given below, there would appear to be no formative.

mbàll mǎ nkwell	'yesterday I got married'	bìsì lî kwéll
mbàll wě kwéll		bé lî kwéll
mbàll ndé â kwéll		bó bā kwéll

Note the n [ŋ] in the 1st person sg.

nkúúmí yì bá yáábì	'this name they knew' = 'this name is famous'
àngómbe bá móní ngàáyí	'the cows were ill' (saw sickness - gámónò)
ndé míní ndé sî	'he did it by himself (qásâ 'to do' > sî)
	(but: bìsì míní lǎ sî, apparently with -a-)
òfúúá áà tsàlìf nzo qáslbi qáyífrì	'the storm destroyed the house last year'
	(qaslbi 'dry season', qáyífrà 'to go past')

Perfect: There is a formative mi, with L tone, the final is -a, with L tone: VP-mì---à. This form occurred frequently.

àtúll bà bá mì màná gátúlà 'those smiths have finished smithying'  
 mé mì búlá mblínà 'I have broken the pot'  
 nsyéde lí, lé mì bóógò 'this nail is broken'  
 mé mì síílà, mì mē bí 'those that are left are no good'  
 (the first mi only - the second is demonstrative)  
 mwáanà òkàárl wũ mì pàlà 'that girl has gone out'  
 (? tone mwaana)

Negative: kà-VP-—— ní

mè ká yííqì ní 'I did not learn' (ká : ? kà+á, note the L tone on mē and wē)  
 wè ká yííqì ní (nde is marked both H and L)  
 nde ká yííqì ní (ka : L in the next three forms)  
 bìsĩ kà lá yííqì ní  
 bé kà lé yííqì mí  
 bó kà bá yííqì ní

## 5. Further observations

We have assembled here several pieces of heterogeneous information relevant to the syntax of the language.

### 5.1. Word order: The pronoun object follows the verb:

mā pìsá wē ádóró  
 'I am asking you for money'

### 5.2. Tones:

#### 5.2.1. The tone of the NP varies according to the syntax; it is

H for the presentation form ("it is"; elicitation form)  
 H as object: mé mì sá òsàlà  
 'I have finished the work'  
 L as subject: òtúll mì yè  
 'the smith has gone'  
 (L probably as second term in the associative group)

5.2.2. Metatony: When something comes after the verb, the final V of the latter, if otherwise L, becomes H. The Falling tone of type A monosyllables is replaced by H. This is the explanation of certain H in sentences in the preceding section.

gáṇwá lákàyà 'to smoke tobacco'  
 (gáṇwá 'to drink')  
 gásá ngàí 'to hurt'  
 (to do hurt)  
 gámónó wòògò 'to be afraid'  
 (see fear)  
 òsàll mí màná gásàlá 'the workman has finished working'  
 òdúma ngàll mí sá mè bwómó 'the thunder-clap frightened me'

5.2.3. VP Ø: It would appear (although there are not many examples available, and the point was not investigated) that when there is no verbal prefix (classes 1, 3, 9/10) the H tone characteristic of the VP is placed on the final V of the noun if this vowel is L:

mbírlí mì bòlò 'the meat has gone bad' (|mbírlí'mì|)  
 but if there is a demonstrative, it may move forward onto the formative, which becomes F:

mvá yù mí kwà 'that dog is dead' ('mì)  
 mpùgù yí mí vùgà 'that village is burnt out'  
 (mpùgù yí é mì vùgà, with VP, was also proposed. For the R on yi, see below.)

5.2.4. There is often a rising tone on the demonstrative, sometimes followed by a slight pause, when it is the subject. It is suggested that this may be an intonation feature, with a demarcative function. Perhaps the R on bádlí in the following sentence can be explained in the same way:

mvùr(u) á bádlí, á lí ókúlámè  
 'the man who fled was my brother'

## Abréviations et symboles

C	consonant
F	falling
H	high
L	low
NP	nominal prefix
R	rising
sb	substantive
V	vowel
vb	verb
VP	verbal prefix
~	between two sequences in free variation.