

MINISTERE DE L'ENSEIGNEMENT SUPERIEUR,  
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**The Tone System in Mambila**  
**Some further comments**

Mona PERRIN

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Some further comments

An initial tentative description of the tone system of the Atta dialect of Mambila was given in Perrin (1969), updated in Perrin (1970) in an unpublished study of the phonology. A more detailed description and comparison with the tone system in the Gembu (Nigeria) dialect was published in Perrin (1974). The present paper is written as a result of further study which has brought to light details not dealt with elsewhere, or which makes it necessary to correct previous statements. In order to present the new material within the total system, the basic principles of the system, although they have already been described, will be repeated.

This study is based on data gathered in the Sonkolong dialect, which phonemically differs little from that of Atta. As far as the tone system is concerned, no differences have been noted.

1. General introduction to the tone system.

1.1 Tone and the phonological word.

In the phonological hierarchy, tone is primarily relevant to word and syllable level. Each syllable bears at least one tone, but tone is more conveniently handled as a feature of the phonological word. Gliding tones on one syllable are interpreted as a sequence of dissimilar level tones. In this way, the same tone patterns found over the two syllables of disyllabic words occur compressed over monosyllabic words:  $nd^{21}$  "to climb",  $nye^2ge^1$  "to arrange". It should be noted that the majority of Mambila words are monosyllabic, and that very few indeed have 3 syllables. Very probably the gliding tones of monosyllabic words are the result of a contraction of longer forms.

There are 4 level tones, which are numbered 1 to 4, from high to low. The sequences of tones on syllables of the phonological word are, however, restricted, thus giving a limited number of tone patterns. This is relevant to the interpretation of prenasalised stops. As mentioned above, glides may occur on monosyllabic words. Neither syllable of a disyllabic word, however, may bear a glide unless it is grammatically conditioned. In our previous descriptions, word initial nasals followed by homorganic voiced stops were interpreted as syllabic, but the unambiguous tone patterns of the

phonological word in fact suggest that these sequences are better interpreted as prenasalised stops: the nasal bears no independent tone and the syllable with the vowel as nucleus may bear a glide which it would not do in an unambiguous disyllabic:

ngu<sup>21</sup> - track

## 1.2 Tone patterns.

Tone patterns illustrated by the phonological word are as follows. Where both syllables of a disyllabic bear the same tone, the tone is marked only once, at the end of the word:

### Level tones

- 1
- 2
- 3
- 4

### Dissimilar tones

- 21
- 31

There are also four falling glides which appear to mark the phonological word, that is, tone patterns 14, 24, 34 and 214. They are, however, rare except as markers of dependent grammatical categories and only concern nouns. Where they do occur on apparently independent items, 1 posit a subclass of inherent/non-alienable noun, rather than interpret them as inherent word patterns. (See 2.1.2.1).

Note that in our previous descriptions the word patterns 31, 14 and 24 were erroneously said to be 32, 13 and 23 respectively. The 24 pattern was omitted.

Loan words have been only partially assimilated to the Mambila tone system. That is to say, the system of grammatical tone has fully imposed its constraints upon borrowed verbs, but the majority of borrowed nouns bear the pattern 14. A possible explanation is that many come from English which accents the first syllable.

A few disyllabic nouns which are not apparently loans bear non-typical tone patterns but the distribution of phonemes in these words is also non-typical and all are reduplicated forms.

fu<sup>4</sup> fu<sup>1</sup> "dust"      cu<sup>4</sup> cu<sup>1</sup> "strong wind"      di<sup>1</sup> di<sup>2</sup> "heel"

Another way of interpreting what I am taking as four level tones might be to posit only three level tones and interpret the tone numbered above as tone 3 as the realisation of some underlying glide:

1	-	1
2	-	2
3	-	glide (32 ?)
4	-	3

This interpretation is attractive in that it decreases the number of level tones and increases the number of glides. The 32 glide would be the obvious candidate as it would be the only one missing if the system were a three-level system. As has already been pointed out, on a four-level system only two of the theoretical possibilities for rising glides are actually found: 21, 31 and not \*41, \*23 and \*43.

This interpretation is further attractive in that tone 4 is never followed in the same phonological word by any tone other than tone 4 and when a grammatical tone change occurs on the second syllable of a tone 4 disyllabic, the first syllable is raised to tone 3. (See 2.1.2.2).

This interpretation would, however, make the tone system of the verbs asymmetrical keeping one level and one rising inherent tone pattern in what we call high tone verbs (see 2.2.2.1), but two rising tone patterns (31 and 32) and no level tone in the low tone verb group. We therefore continue in this paper to assume 4 tone levels.

### 1.3 The function of tone

Tone carries both lexical and grammatical function. There are many lexical items distinguished only by tone, many minimal tone pairs, triplets and even quadruplets or more, particularly among monosyllabic words. e.g. bɔ - 1, 2, 3, 4, 21, 14.

There are some grammatical constructions distinguished only by tone (some cases of the imperative and negative) and others which are obligatorily, though not uniquely, marked by tone changes. Some semantic categories are also marked uniquely by tone, e.g. motion towards centre of interest (see 2.2.3).

There is little phonological conditioning of tone.

## 2. Grammatical function of tone.

What may be called the inherent tone patterns of the phonological word may be modified or replaced by tone patterns marking grammatical categories. In some cases, the new pattern means that no syllable carries the same tone as before, but there are certain grammatical categories which preserve the first inherent tone, thus giving a glide of two or three consecutive tones on monosyllables, and a replacement for, or an addition to the inherent tone of the second syllable only in disyllabic words.

Those grammatical tone changes which preserve the first inherent tone are provoked by floating tone morphemes. The tone is all that remains of previous segmental morphemes bearing that tone, post-positional clitics which can be attested by a comparative study of other dialects of Mambila (see 2.1.2.1 for example).

It is helpful to describe the grammatical function of tone under two headings, verbal and non-verbal. Verbal includes only those words and particles analysed as being within the verb phrase.

### 2.1 Grammatical tone as it affects non-verbal parts of speech.

#### 2.1.1 Independent and dependent tone.

A further division can be made into independent and dependent tone patterns. The term 'independent' refers to lexical tone, while 'dependent' patterns are those which mark certain grammatical categories. The majority of mono- and disyllabic nouns which may be analysed as single phonological words fall into six tone groups. When bearing independent tone patterns, those groups are: level tones 1, 2, 3 and 4 and rising glides 21 and 31. Falling glides are dealt with under 2.1.2.1.

Examples:	CV(C)	CVCV(C)
vun <sup>1</sup>	hoe	yome <sup>1</sup> - tear
ba <sup>2</sup>	bag	yolo <sup>2</sup> - millet
ba <sup>3</sup>	palm of hand	gwaga <sup>3</sup> - lance
mbe <sup>4</sup>	beer	nomo <sup>4</sup> - water
se <sup>21</sup>	work	yi <sup>2</sup> li <sup>1</sup> - name
kwa <sup>31</sup>	parrot	ce <sup>3</sup> men <sup>1</sup> - eyelid

In all<sup>(2)</sup> cases dependent tone patterns are marked by a final tone 4. This gives rise to a glide on mono-syllables. In the case of

disyllabics with level tones 1 or 2, the glide is usually at word level, following a process of tone absorption:

gule<sup>2</sup> : ka<sup>2</sup> gu<sup>2</sup>le<sup>4</sup> : 'underneath the foot'.

When repeating a statement an emphatic particle may be added, and then the glide may be at syllable level: ka<sup>2</sup> gu<sup>2</sup>le<sup>2</sup> o<sup>3</sup>.

The process of tone absorption does not take place in disyllabics bearing tone 3, but the final tone 4 of the dependent construction produces a glide on the final syllable:

tele<sup>3</sup> : huel<sup>2</sup> te<sup>3</sup>le<sup>3</sup>4 - "the father's voice"

nyɔgɔ<sup>3</sup> : gule<sup>2</sup> nyɔ<sup>3</sup>gɔ<sup>3</sup>4 - "the foot of the partridge"

The following table shows the changes from independent to dependent tone. Independent tone patterns already ending in tone 4 do not change:

Independent	Dependent
1	14
2	24
3	34
4	4
21	214
31	314

## 2.1.2 Functions of dependent tone patterns.

### 2.1.2.1 The Noun Phrase.

Dependent patterns are found on all attributives to the head in the noun phrase, except numerals. Examples were given in Perrin (1974) of the dependent noun in a possessive relationship, adjectives as attributes to the noun, possessive pronouns, demonstratives and relative clauses. These will not all be repeated here, but the reader should note that what was there marked as a glide falling to tone 3, is now recognised as falling to tone 4. We will, however, expand on the examples given previously of dependent nouns in a possessive relationship in order to illustrate all 6 tone patterns:

ti <sup>1</sup>	- rabbit	gule <sup>2</sup> ti <sup>14</sup>	- "foot of rabbit"
nyam <sup>2</sup>	- animal	gule <sup>2</sup> nyam <sup>24</sup>	- "foot of animal"
tub <sup>3</sup>	- lake	nomo <sup>4</sup> tub <sup>34</sup>	- "water of lake"
nomo <sup>4</sup>	- water	momo <sup>1</sup> nomo <sup>4</sup>	- "smell of water"
bor <sup>21</sup>	- dog	gule <sup>2</sup> bor <sup>214</sup>	- "foot of dog"
nyɔn <sup>31</sup>	- flea	gule <sup>2</sup> nyɔn <sup>314</sup>	- "foot of flea"

The final tone 4 of the dependent tone pattern is actually a floating tone morpheme marking dependence, all that remains of a segmental morpheme of the same tone. This segmental morpheme is still obligatory in the Gembu dialect. In the Songkolong and Atta dialects the morpheme is still found with some older speakers, but only with nouns of CVC structure:

gule<sup>2</sup> bor<sup>21</sup> e<sup>4</sup> - "foot of dog"

As shown above, the dependent tone pattern obligatorily marks the possessor when two nouns are in a possessive relationship. The same dependent patterns are found in possessive adjectives:

mo <sup>4</sup>	- my,	ye <sup>24</sup>	- your (sing.)	sen <sup>24</sup>	- his
bel <sup>24</sup>	- our,	bi <sup>24</sup>	- your (pl.)	bɔn <sup>24</sup>	- their.

There is also a subclass of noun marked, even in isolation, by dependent tone patterns, as was mentioned under 1.2.

ku <sup>14</sup>	- flute
yar <sup>24</sup>	- buffalo
bam <sup>34</sup>	- a special day in the Mambila week.

In previous descriptions of the tone system (Perrin 1969, 1974) these were listed with the four level tones and the two rising glides as further inherent tone patterns for the phonological word. In this paper I analyse these as a subclass of noun which never occurs bearing only its inherent tone, but is obligatorily marked for dependence by a floating tone 4 morpheme. These nouns can themselves be possessed or be the possessor with no further tone changes.

ku <sup>14</sup> sen <sup>24</sup>	- his flute	huel <sup>2</sup> ku <sup>14</sup>	- sound of flute
yar <sup>24</sup> tom <sup>214</sup>	- poisoned buffalo	gule <sup>2</sup> yar <sup>24</sup>	- foot of buffalo

This subclass is small and seems restricted largely to nouns of religious significance in the Mambila culture or to those which are inherently possessed. Of religious significance are the 10 days of the Mambila week, sacred animals (which inherently belong to the chief), and certain places, powers and musical instruments.

Those which grammatically are obligatorily possessed concern certain close relationships: vel<sup>24</sup> - wife and nuel<sup>24</sup> - field:

vel <sup>1</sup>	-	"female"
ma <sup>2</sup> vel <sup>14</sup>	-	"woman female"
vel <sup>24</sup> sen <sup>24</sup>	-	"wife his" (his wife)
nuel <sup>24</sup> sen <sup>24</sup>	-	"his field"

Only in a locative phrase is "field" not inherently possessed and bears tone 2: ke<sup>1</sup> nuel<sup>2</sup> - "to the field".

In the case of other close relations, nuna<sup>2</sup> "son/daughter", me<sup>2</sup>i<sup>1</sup> "mother," tie<sup>2</sup> "sibling of opposite sex" and si<sup>2</sup> "husband" they are not obligatorily possessed and the dependent tone pattern only occurs when the possessor is a proper noun, (which is not the case for nouns outside this class):

nuna <sup>2</sup>	sen <sup>24</sup>	"his son"
nu <sup>2</sup> na <sup>4</sup>	Mu <sup>34</sup>	"son of Mu"
me <sup>2</sup> i <sup>4</sup>	Te <sup>2</sup> ma <sup>4</sup>	"mother of Tema"
tie <sup>24</sup>	Yo <sup>2</sup> go <sup>4</sup>	"sister of Yogo"
si <sup>24</sup>	Ma <sup>4</sup> ri <sup>14</sup>	"husband of Mary"

Note the irregular tone change where me<sup>2</sup>i<sup>1</sup> becomes me<sup>2</sup>i<sup>4</sup> and not me<sup>2</sup>i<sup>14</sup>.

When dependent tone is marked on the possessed, as in the above cases, the possessor, also bearing dependent tone, cannot be omitted. For example, one cannot speak of "the wife" without completing the noun phrase with a reference to the possessor.

The above examples show high tone nouns, either tone 2 or 21. Tone 3 nouns which concern close relations do not show the dependent tone pattern when the possessor is a proper noun:

tele <sup>3</sup>	Mu <sup>34</sup>	"father of Mu"
bei <sup>3</sup>	Ma <sup>4</sup> ri <sup>14</sup>	"older sister of Mary"



### 2.1.2.2 The Adverbial Phrase.

The prepositional phrase in Mambila may consist of a preposition followed by a noun phrase. There are three classes of preposition. Class 1 is made up of prepositions which do not cause tone changes on the noun phrase: ke<sup>1</sup> - "to, at", ka<sup>1</sup> - "to, at"; e.g.:

A<sup>4</sup> nde<sup>2</sup> ne<sup>1</sup> ke<sup>1</sup> Baŋ<sup>2</sup> - "He is going to Lingam."  
 He go COP to Lingam

Class 2 prepositions are in fact nouns and stand in a possessive relationship with the noun phrase. The noun phrase thus bears the dependent tone pattern and the last element in it will be marked in the same way as was shown in 2.1.1, e.g.:

vun<sup>1</sup> - hoe A<sup>4</sup> yila<sup>2</sup> ba<sup>21</sup> ka<sup>2</sup> vun<sup>14</sup> : It entered under the hoe  
 ba<sup>2</sup> - bag " " " ka<sup>2</sup> ba<sup>24</sup> " " " " bag  
 ta<sup>21</sup> - stone " den né ka<sup>2</sup> ta<sup>214</sup> " stays " " stone

Prepositions in this class include ka<sup>2</sup> - "base", fe<sup>2</sup>le<sup>4</sup> - "above" (fe<sup>2</sup> - "head"), jomo<sup>2</sup> - "behind", to<sup>24</sup> - "in front of" and le<sup>4</sup> - "inside". When followed by a pronoun, the pronoun has the possessive form :

fe<sup>2</sup>le<sup>4</sup> sen<sup>24</sup> - "above him"

Prepositions in this class may occur without a noun object and will then bear the floating tone 4 morpheme themselves:

ke<sup>4</sup> nji<sup>1</sup> ke<sup>1</sup> ka<sup>24</sup> - "Look underneath."  
 look AUX to under

Class 3 prepositions involve a floating tone 2 morpheme which attaches itself to the last tone of the prepositional phrase. Again there is a process of tone absorption in the case of disyllabics. This class seems restricted to te<sup>2</sup> - "on" and le<sup>4</sup> - "in".

A<sup>4</sup> den<sup>3</sup> ne<sup>1</sup> te<sup>2</sup> vun<sup>12</sup> : It stays on the hoe.  
 A<sup>4</sup> den<sup>3</sup> ne<sup>1</sup> te<sup>2</sup> ba<sup>2</sup> : " " " " bag.  
 A<sup>4</sup> den<sup>3</sup> ne<sup>1</sup> te<sup>2</sup> ta<sup>212</sup> : " " " " stone.

It is to be noted that le<sup>4</sup> has been listed under both class 2 and class 3, though with slightly different glosses. The tone 2 floating morpheme indicates a less complete entry into the location specified:

A<sup>4</sup> ne<sup>1</sup> le<sup>4</sup> ko<sup>1</sup>mo<sup>4</sup> : "It is (submerged) in the oil."  
A<sup>4</sup> ne<sup>1</sup> le<sup>4</sup> ko<sup>1</sup>mo<sup>2</sup> : "It is (standing) in oil."

When a noun bears inherent tone 4 and the grammatical construction requires it to be combined with a final tone 2 as above, the tone 4 is realised as 3. This is the only case discovered so far of phonological conditioning of tone, and fits the pattern that tone 4 may only be followed by tone 4 in the same phonological word:

mbe<sup>4</sup> - beer                    A<sup>4</sup> ne<sup>1</sup> le<sup>4</sup> mbe<sup>3</sup>2 - "It is in the beer."  
tabe<sup>4</sup> - ground                te<sup>2</sup> ta<sup>3</sup>be<sup>2</sup> - "on the ground."

As mentioned under 2.1.2.1, the floating tone morphemes demanded by these constructions, whether of tone 2 or tone 4, are residues of segmental morphemes still present in some other dialects, such as Gembu. In the Sonkolong and Atta dialects CVC nouns may still take a segmental affix as an alternative form to that shown above:

vun<sup>1</sup> - "hoe"            te<sup>2</sup> vun<sup>1</sup>2    or    te<sup>2</sup> vun<sup>1</sup> e<sup>2</sup> - "on the hoe"  
                              ka<sup>2</sup> vun<sup>1</sup>4    or    ka<sup>2</sup> vun<sup>1</sup> e<sup>4</sup> - "under the hoe".

The affixed form is even the preferred one for CVC nouns of tone 2 when the floating tone morpheme is also of tone 2.

boŋ<sup>2</sup> - latrine            le<sup>4</sup> boŋe<sup>2</sup>    "in the latrine."

## 2.2 Tone changes borne by the verb

### 2.2.1 Inherent tone

Mambila clause structure is SVO in the narrative tense (and in focus constructions). The greatest number of tone patterns for the verbs is found in the narrative tense. The same patterns occur when the verbs are cited in isolation and so are taken in this paper as the inherent tones. On the basis of their inherent tone patterns, verbs are divided into four groups, two with level tones and two with rising

glides. The tones correspond to those established under non-verbals. (Note that the glide said to be 32 in Perrin 1969 and 1974 is in fact 31.) The most common patterns are tone 2 and 21.

Examples	CV(C)		CVCV		CVCVC	
Tone 2	ba	-	slap	yila	- enter	---
3	gur	-	discourage	bele	- follow	---
21	bo	-	do	yila	- call	kugor - plead
31	gwa	-	dig ridges	dili	- set up	togom - reflect

It is interesting to note that all CVCVC verbs bear a rising tone, as do all verbs indicating plurality of action, perhaps the remains of former suffixes.

### 2.2.2 Grammatical categories marked by tone changes.

In Perrin (1974) we described the tone changes which mark the negative and imperative forms, also that which occurs in the discontinuous verb phrase. In this paper we will give a more complete set of examples, as well as present some new material.

#### 2.2.2.1 The negative.

Verbs with inherent tones 2 and 21 are said to be high tone verbs in that they generally take tone 1 in the negative and imperative. Those with inherent tones 3 and 31 are considered low tone verbs in that they take tone 4 in the negative and imperative. The negative is further marked by a negative particle and a change to SOV word order:

A <sup>4</sup>	yila <sup>2</sup>	gwo <sup>4</sup>	-	"He enters the house".
He	enters	house		
A <sup>4</sup>	gwo <sup>4</sup>	yila <sup>1</sup>	ngwe <sup>1</sup>	- "He does not enter the house".
He	house	enters	NEG	
A <sup>4</sup>	yi <sup>2</sup> la <sup>1</sup>	me <sup>4</sup>	-	"He calls me".
A <sup>4</sup>	me <sup>4</sup>	yila <sup>1</sup>	ngwe <sup>1</sup>	- "He does not call me".
He	me	calls	NEG	
A <sup>4</sup>	yaga <sup>3</sup>	be <sup>2</sup>	-	"He washes hands".
A <sup>4</sup>	be <sup>2</sup>	yaga <sup>4</sup>	ngwe <sup>1</sup>	- "He does not wash hands".
He	hand	washes	NEG	

A<sup>4</sup> lan<sup>31</sup> nuar<sup>4</sup> - "He invites people".  
 A<sup>4</sup> nuar<sup>4</sup> lan<sup>4</sup> ngwe<sup>1</sup> - "He does not invite people".  
 He person invites NEG

Tone distinctions 2/21 and 3/31 are thus neutralised in the negative. One must refer to the context to disambiguate.

There is one construction where the negative may be marked by tone alone, that is the verb cu<sup>2</sup> "to return", which may function as an auxiliary verb with positive meaning "again" or negative meaning "no more", depending on the tone. In the following example cu<sup>2</sup> is shown first with its primary meaning "to return". Then it is shown functioning as an auxiliary (Perrin 1976). Note that several verbs may co-occur in a complex verb phrase and all will bear the appropriate tone change for the negative and imperative forms:

A<sup>4</sup> cu<sup>2</sup> a<sup>21</sup> - He returned.

A<sup>4</sup> nde<sup>2</sup> cu<sup>2</sup> a<sup>21</sup> - He went again.  
 He go again ASP

A<sup>4</sup> nde<sup>1</sup> cu<sup>1</sup>  
 He go no-more

--- te<sup>2</sup> a<sup>4</sup> nde<sup>2</sup> cu<sup>2</sup> - in order that he go again.

--- te<sup>2</sup> a<sup>4</sup> nde<sup>1</sup> cu<sup>1</sup> - in order that he not go again.

Note that in Perrin (1974) similar examples were given but without the auxiliary "cu". The difference is dialectal.

#### 2.2.2.2 The imperative.

The second person singular imperative is marked by a tone change and the absence of subject. For the second person plural and the first and third persons singular and plural, the imperative form is marked by tone change alone. As with the negative, verbs with inherent tones 2 and 21 generally take tone 1 and those with inherent tones 3 and 31 take tone 4. See 2.2.4 for other possibilities.

#### 2.2.2.3 The discontinuous verb phrase.

Non-focus constructions in all tenses but the narrative have a discontinuous verb phrase. In the discontinuous verb phrase, the

verbal particles immediately follow the subject, while the main verb and any auxiliary verbs occur clause finally. In this latter position a floating tone 1 morpheme attaches to the clause final element. This gives no change of tone to verbs of inherent tones 21 and 31, but does neutralise the 2/21 distinction. Note that verbs of inherent tone 3 are not affected:

sa<sup>2</sup> - sew: A<sup>4</sup> sa<sup>2</sup> cɔɔ<sup>4</sup> - He sews cloth (narrative)  
 A<sup>4</sup> ba<sup>21</sup> cɔɔ<sup>4</sup> sa<sup>21</sup> - He is sewing cloth.  
 He COPULA cloth sews

sa<sup>21</sup> - burn: A<sup>4</sup> sa<sup>21</sup> ya<sup>2</sup> - He burns the bush (narrative)  
 A<sup>4</sup> ba<sup>21</sup> ya<sup>2</sup> sa<sup>21</sup> - He is burning the bush.  
 He COP bush burns

yaga<sup>3</sup> - wash: A<sup>4</sup> ba<sup>21</sup> be<sup>2</sup> yaga<sup>3</sup> - He is washing (his) hands.  
 He COP hand washes

lan<sup>31</sup> - invite: A<sup>4</sup> ba<sup>21</sup> nuar<sup>4</sup> lan<sup>31</sup> - He is inviting people.  
 He COP person invites

#### 2.2.2.4 The past tense.

When a continuous verb phrase is marked for past tense, the verb immediately preceding the copula, if it is of inherent level tone, is characterised by the addition of a polar tone. Level high tone verbs, i.e. tone 2, add low tone, tone 4. Level low tone verbs, i.e. tone 3, add high tone, tone 1. Note that with disyllabics, the process of tone absorption simplifies the tone on the final syllable. As implied above, verbs with inherent glides are not affected. In this construction the 3/31 distinction is neutralised:

ne<sup>2</sup> - see : A<sup>4</sup> le<sup>1</sup> ne<sup>2</sup>ne<sup>4</sup> na<sup>212</sup> bu<sup>1</sup> - He saw him.  
 He PTM see COP him

gi<sup>2</sup> - finish: A<sup>4</sup> le<sup>1</sup> ne<sup>2</sup> gi<sup>24</sup> na<sup>212</sup> bu<sup>1</sup> - He had already  
 seen him.

yi<sup>2</sup>la<sup>1</sup> - call : A<sup>4</sup> le<sup>1</sup> yi<sup>2</sup>la<sup>1</sup> na<sup>212</sup> bu<sup>1</sup> - He called him.

yaga<sup>3</sup> - wash : A<sup>4</sup> le<sup>1</sup> ya<sup>3</sup>ga<sup>1</sup> na<sup>212</sup> be<sup>2</sup> - He washed hands.

lan<sup>31</sup> - invite: A<sup>4</sup> le<sup>1</sup> lan<sup>31</sup> na<sup>212</sup> nuar<sup>4</sup> - He invited people.

### 2.2.2.5 Clause final repeat for emphasis.

A command or a statement to emphasise that an event should or did in fact take place may be accompanied by a clause final repeat of the verb. The repeated verb will take a falling tone 24 regardless of the inherent tone of the verb. In a disyllabic word, the falling glide is realised over the word, not on the last syllable alone:

- |                                 |            |  |                                     |
|---------------------------------|------------|--|-------------------------------------|
| tue <sup>2</sup>                | - draw:    | Bo <sup>1</sup> tue <sup>2</sup> nomo <sup>4</sup> tue <sup>24</sup> | - They are in fact<br>drawing water |
| tue <sup>21</sup>               | - speak:   | Tue <sup>1</sup> bu <sup>1</sup> tue <sup>24</sup>                   | - Go ahead and tell him.            |
| seb <sup>3</sup>                | - despise: | Bo' seb <sup>3</sup> bu <sup>1</sup> seb <sup>24</sup>               | - They really do despise him.       |
| di <sup>3</sup> li <sup>1</sup> | - set up:  | Dili <sup>4</sup> bu <sup>1</sup> di <sup>2</sup> li <sup>4</sup>    | - Go ahead and set it up.           |

### 2.2.2.6 Nominalised verbs.

As for other dependent constructions, nominalisation of the verb is marked by a floating tone 4 morpheme. This is added to the existing tone of the final syllable, thus giving rise to a falling glide at syllable level. The nominalised verb occurs final in the noun phrase and the distinction of the inherent tones 2/21 is neutralised as the floating tone 1 morpheme (see 2.2.2.3) is added before nominalisation.

- |                                 |           |   |  |
|---------------------------------|-----------|---|--|
| yila <sup>2</sup>               | - enter : | A <sup>4</sup> gwan <sup>31</sup> ne <sup>1</sup> gwo <sup>4</sup> yi <sup>2</sup> la <sup>14</sup> | - "He wants to enter<br>He wants COP house enter the house." |
| yi <sup>2</sup> la <sup>1</sup> | - call :  | A <sup>4</sup> gwan <sup>31</sup> ne <sup>1</sup> bu <sup>1</sup> yi <sup>2</sup> la <sup>14</sup>  | - "He wants to call him."                                    |
| dobo <sup>3</sup>               | - plant : | ŋwagam <sup>4</sup> do <sup>3</sup> bo <sup>34</sup> tare <sup>1</sup> ngwe <sup>1</sup>            | - "Planting maize is<br>Maize plant hard NEG not hard."      |
| di <sup>3</sup> li <sup>1</sup> | - set up: | A <sup>4</sup> gwan <sup>31</sup> ne <sup>1</sup> jua <sup>4</sup> di <sup>3</sup> li <sup>14</sup> | - He wants to set up<br>He want COP drum set-up the drum.    |

### 2.2.2.7 Verbs in descriptive constructions.

Only transitive verbs may function in descriptive constructions. The verb precedes its object and takes the same tone as in the negative and imperative. The descriptive construction normally indicates a person's occupation or main characteristic:

- |                   |            |  |   |
|-------------------|------------|--|---|
| me <sup>2</sup>   | - build:   | nua <sup>4</sup> me <sup>1</sup> gwa <sup>4</sup>    | - "builder" (person build house)        |
| sie <sup>3</sup>  | - catch:   | nua <sup>4</sup> sie <sup>4</sup> ngo <sup>4</sup>   | - "fisherman" (person catch fish)       |
| bele <sup>3</sup> | - deceive: | nua <sup>4</sup> bele <sup>4</sup> nuar <sup>4</sup> | - "deceiver" (person deceive<br>person) |

### 2.2.2.8 Verbs in adjectival constructions

Again only transitive verbs may function here. If the object is expressed, it precedes the verb (unlike descriptive constructions). The adjectival construction of object and verb qualifies the preceding noun and therefore takes a final tone 4 dependent morpheme:

Dei<sup>14</sup> nde<sup>2</sup> ne<sup>1</sup> nua<sup>4</sup> ngwagam<sup>4</sup> do<sup>3</sup>bo<sup>34</sup>  
Some go COP person maize plant

dei<sup>14</sup> nua<sup>4</sup> kwa<sup>214</sup>  
some person harvest.

"Some will be the ones to plant and others to harvest."

Note that the inherent tone of "to plant" is tone 3 and that of "to harvest" tone 2.

### 2.2.2.9 The copula.

There are three forms of the copula: ne<sup>1</sup> indicating a present state, ba<sup>21</sup> indicating a change of state (with present meaning unless otherwise marked) and na<sup>212</sup> indicating a past state:<sup>3</sup>

A<sup>4</sup> ne<sup>1</sup> ke<sup>1</sup> gwo<sup>4</sup> : He is in house

A<sup>4</sup> ba<sup>21</sup> ke<sup>1</sup> gwo<sup>4</sup> : He is (now) in house (but was previously elsewhere)

A<sup>4</sup> na<sup>212</sup> ke<sup>1</sup> gwo<sup>4</sup> : He was in house.

Ne<sup>1</sup> does not occur in negative or imperative constructions and never bears a different tone. Ba<sup>21</sup> occurs in the imperative where it takes tone 1. Na<sup>212</sup> occurs in the negative, also with tone 1.

Ha<sup>1</sup> ba<sup>1</sup> bu<sup>1</sup> : "Give (it) to him" (indicating perhaps some previous reluctance to give)

A<sup>4</sup> le<sup>1</sup> nde<sup>1</sup> na<sup>1</sup> ngwe<sup>14</sup> : "He did not go."

In positive constructions na<sup>212</sup> loses the falling glide when non-final in the verb phrase:

A<sup>4</sup> le<sup>1</sup> na<sup>21</sup> ba<sup>21</sup> ke<sup>1</sup> gwo<sup>4</sup> : "He was in the house" (but recently had not been).  
He PTM COP ASP LOC house

Note, however, that when na<sup>212</sup> is followed by an auxiliary verb, that is, by something other than ba<sup>21</sup> within the verb phrase, it not only loses the falling glide, but the auxiliary verb gains a polar tone; witness the pattern with the auxiliary gi<sup>2</sup> "to finish":

Bo<sup>1</sup> le<sup>1</sup> na<sup>21</sup> gi<sup>24</sup> ke<sup>1</sup> ten<sup>24</sup> : "They were all there.  
 They PTM COP finish LOC there

### 2.2.3 Semantic categories marked by tone changes.

#### 2.2.3.1 Motion towards.

Verbs of motion, when motion is away from the speaker, bear, in theory, any one of the four word patterns established for the verb. When the motion is towards the speaker, the final verb in the verb phrase is marked by a falling tone. (The fall is to tone 4, not to tone 3, as was erroneously stated in Perrin (1974).) Verbs of motion are, in fact, all high tone verbs, having either tone 2 or 21 as their inherent tones. These give rise to tone patterns 24 or 214 respectively when marked for "motion towards." The preposition "to" also marks "motion towards speaker" by a change of form from ke<sup>1</sup> to ka<sup>1</sup>.

nde <sup>2</sup> - go	A <sup>4</sup> nde <sup>2</sup> ne <sup>1</sup> ke <sup>1</sup> tan <sup>2</sup> :	He goes to market.
	A <sup>4</sup> nde <sup>24</sup> ne <sup>1</sup> ka <sup>1</sup> tan <sup>2</sup> :	He comes to market.
suaga <sup>2</sup> - descend	A <sup>4</sup> suaga <sup>2</sup> ne <sup>1</sup> ke <sup>1</sup> lo <sup>2</sup> :	He goes down home.
	A <sup>4</sup> sua <sup>2</sup> ga <sup>24</sup> ne <sup>1</sup> ka <sup>1</sup> lo <sup>2</sup> :	He comes down home.
na <sup>21</sup> - climb	A <sup>4</sup> na <sup>21</sup> ne <sup>1</sup> ke <sup>1</sup> ter <sup>2</sup> :	He climbs up there.
	A <sup>4</sup> na <sup>214</sup> ne <sup>1</sup> ka <sup>1</sup> ter <sup>2</sup> :	He climbs up here.

When an auxiliary verb is present, it bears the "motion towards" tone pattern, not the main verb. The first example below shows an auxiliary verb with inherent tone 2, the second an auxiliary verb with inherent tone 3:

gi<sup>2</sup> - finish A<sup>4</sup> nde<sup>2</sup> gi<sup>24</sup> ka<sup>1</sup> lo<sup>2</sup> : "He has already come home."  
 He go finish Loc. home

bele<sup>3</sup> - follow Bo<sup>1</sup> wa<sup>2</sup> be<sup>3</sup>le<sup>34</sup> ka<sup>1</sup> lo<sup>2</sup> : "They arrive home  
 They arrive follow Loc. home each of them."



### 2.2.3.2 Impulsive action.

A small class of verbs may be marked by a tone change indicating impulsive action. Those found so far are of inherent tone 3 and the tone change is to 314, e.g.:

- A<sup>4</sup> sɔm<sup>3</sup> cogo<sup>4</sup> : "He picks up the stick."  
 A<sup>4</sup> sɔm<sup>314</sup> cogo<sup>4</sup> : "He picks up the stick impulsively and with energy."  
 Bɔ<sup>1</sup> yuo<sup>3</sup> ke<sup>1</sup> lɔ<sup>2</sup> : "They leave the village."  
 Bɔ<sup>1</sup> yuo<sup>314</sup> kan<sup>4</sup> : "They leave from all directions impulsively to see what is happening."

### 2.2.4 Combining grammatical and semantic categories.

Tone change rules for the imperative and for the discontinuous verb phrase are applied before the "motion-towards" rule:

- nde<sup>2</sup> - go: Bi<sup>1</sup> nde<sup>1</sup> ! - Go! (plural)  
 you go  
 Bi<sup>1</sup> nde<sup>14</sup> ! - Come! (plural)
- A<sup>4</sup> nde<sup>2</sup> ke<sup>1</sup> lɔ<sup>2</sup> - He goes home.  
 A<sup>4</sup> ba<sup>21</sup> ke<sup>1</sup> lɔ<sup>2</sup> nde<sup>21</sup> - He is going home.  
 He COP to home go  
 A<sup>4</sup> ba<sup>21</sup> ka<sup>1</sup> lɔ<sup>2</sup> nde<sup>214</sup> - He is coming home.  
 come

"Motion towards" in the negative is marked by the tone of the negative particle; except in the negative imperative where again the tone change marking the grammatical category is applied before the "motion towards" rule.

- A<sup>4</sup> ke<sup>1</sup> lɔ<sup>2</sup> nde<sup>1</sup> ŋwe<sup>1</sup> - He does not go home  
 He to home go NEG  
 A<sup>4</sup> ka<sup>1</sup> lɔ<sup>2</sup> nde<sup>1</sup> ŋwe<sup>14</sup> - He does not come home.
- Te<sup>1</sup> ke<sup>1</sup> lɔ<sup>2</sup> nde<sup>1</sup> ! - Don't go home!  
 NEG to home go  
 Te<sup>1</sup> ka<sup>1</sup> lɔ<sup>2</sup> nde<sup>14</sup> ! - Don't come home!

Such examples illustrate that it is the last element of the verb phrase, whether verb or particle, that bears the "motion towards" tone change.

Tone change rules for the past tense in a continuous verb phrase do not allow for the further modification of "motion towards". "Motion towards" is then carried only by the choice of preposition.

Bɔ<sup>1</sup> le<sup>1</sup> wa<sup>24</sup> na<sup>212</sup> ka<sup>1</sup> lo<sup>2</sup>: They arrived (here) home.  
 They PTM arrive COP to home  
 Bɔ<sup>1</sup> le<sup>1</sup> wa<sup>24</sup> na<sup>212</sup> ke<sup>1</sup> lo<sup>2</sup>: " " (there) home.  
 Bɔ<sup>1</sup> le<sup>1</sup> wa<sup>2</sup> be<sup>3</sup>le<sup>1</sup> na<sup>212</sup> ka<sup>1</sup> lo<sup>2</sup>: They each one arrived  
 AUX (here) home.

Similarly nominalisation neutralises the "motion towards" distinction:

A<sup>4</sup> gwan<sup>31</sup> ne<sup>1</sup> nde<sup>214</sup> : - "He wants to go/come."  
 He want COP

#### 2.2.5 Chart of tone changes borne by the verb.

Inherent tone	2	21	3	31
Neg./Imp.	1	1	4	4
Discontinuous VP	21	21	3	31
Continuous VP, past	24	21	31	31
final repeat for emph.	24	24	24	24
Nominalised Vb.	214	214	34	314
Descriptives	1	1	4	4
Motion towards	24	214	34	

Footnote 1: Mambila belongs to the central branch of the Niger-Congo family, in the Bantoid sub-class of the Benue-Congo sub-family (Greenberg's classification.)

2: It was stated in Perrin (1974) that tone 3 nouns were exempt. That is not so.

3. Note that a 212 glide is exceptional in the language and is perhaps the result of a previous contraction.

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