SYNTACTIC TONE PHRASES IN KONGO

by

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ABSTRACT

Zombo sentences are described as consisting of one or more 'pitch phrases'. The arrangement of items in phrases is correlatable with their syntactic status. Syntactic units are characterized by phrase-initial or non-initial position.

Pitches are interpreted in terms of a tonal system of high and low tones. Nominals examined in contexts of maximum differentiation show up to two tono-morphological variants, the occurrence of which is determined by the syntactic slot the nominal fills. Patterns of phrase-initial nominals occupying an entire phrase are described in terms of two initial realization rules, or modifications, each applying to a specific variant. Under modification, the high tones of the basic structure may not be fully realized. Patterns of phrase-initial nominal groups are further described in terms of three initial sequences: concatenate, composite and compound, regarded as exponents of syntactic relationship between components of the sequence. Compound sequences form a special syntactic category requiring phrase-initial exponence, which may over-ride the phrasing otherwise characteristic of the unit.

These techniques are sufficient for the description of particles, verbals and mixed category sequences also; compounds, however, always have a nominal head. The term 'syntactic tone-phrasing' is given to the system as a whole. Despite superficial resemblances to intonational languages, Zombo is best described as tonal.

The main contributions of the thesis are regarded as

i) the isolation of phrasing

ii) the description of all items in terms of a maximum of two basic tonal variants, rather than a larger number based on tonetic description only

iii) the demonstration of the part played by syntax in the tonal system.
PREFATORY NOTE AND ACKNOWLEDGEMENTS

Not all recorded structures in Zombo have been described in this study, although it is claimed that the method of description applies to those which have not been illustrated. In particular, ideophones, interjections and negative structures have been omitted, for reasons of space. There is much of interest in these; for instance, there are 'stable' and 'unstable' negative structures, displaying different pitch (and hence tonal) features. Their inclusion would, however, have added nothing to the techniques of description required, and the work is already of considerable length.

My thanks are due to many people, particularly the following: Professor Wilfred Whiteley, for discussion of his concept of entailed structures, which helped greatly in the syntactic analysis; Dr. Joan Maw, whose description of 'tone groups' in her thesis Sentences in Swahili (pp. 66-70) first suggested the idea that pitch patterns might be more readily handled if broken down into groups independent of each other; Professor Karel Van den Eynde, and Dr. J Daeleman, S.I., whose work on other Kongo dialects provided stimulating ideas, although in the event I was not able to apply their methods of description to Zombo; my assistant, Joao Makondekwa, who provided the data on which this study is based, and whose patience and meticulous attention to detail were little short of heroic; above all, to Professor (now Emeritus) Malcolm Guthrie, who gave me a basic training in, and an enthusiasm for, the study of Bantu languages. He not only introduced me to Kongo, and made available much of his own material, but also provided many illuminating and critical observations, helped with details of notation and arrangement,
and supervised the whole production of this thesis. The method of syntactic analysis used in Chs. 1 and 2 is, as recorded elsewhere, a development of his own, published in Bantu Sentence Structure. Among observations of his which have since borne fruit in this work, I would single out the following:

i) that there is vowel distortion in Kongo (see notes on the phonology of subordinate components of compounds, under 4.2.3.3. and in Appendix II);

ii) that there is something curious about the pattern of items such as munã ndzo 'in the house' (there is; it is here termed a nominal compound, see 4.2.3.);

iii) that the tones of Kongo, viewed as a classic tonal system, do not make sense (nor do they; hence this thesis).
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INTRODUCTORY

1.0. Pitch phenomena of Zombo

Zombo (Zoombo) is a dialect of the Kongo language, spoken in the north of Angola and to some extent in the southern part of the Democratic Republic of the Congo (Congo-Kinshasa). The number of speakers is not known. No complete description of the dialect has been published, and other publications to date make little or no mention of the aspect of pitch.

The pitch phenomena of some other varieties of Kongo have been described by several authors, but while a certain degree of resemblance is observable between the phenomena termed by them variously 'tones', 'musical tones' or 'musical accent', and what are here called for the moment Zombo pitch phenomena, it is clear that there are considerable differences.

The dialects of Kongo show differences in other respects also. The morphological and even the phonological structure of Zombo differs markedly from that of other dialects, including some for which there is no published material, but for which data is available to me. In particular, Zombo is characterized by a morphological variation of nominal prefixes. These may appear with or without an Initial Vowel attached, e.g. oma-dya/ma-dya 'food'. The variation is often associated with differences in the pitch pattern of the item.

1. Bibliography nos. 3 and 8 make brief references to some of the aspects of pitch here studied in greater detail.

2. Bibliography nos. 4 (Ntandu, or Nthaandu), 7a and 7b (several dialects) and 10 (Mayombe). No. 12 describes the related language of Yaka.

3. For an outline of nominal morphology, see Appendix VI.
For instance:

-bazolele ssuumb’ omadya- they wish to buy the food

-bazolele ssuumba madya- they wish to buy some food

In these two sentences, the pitch pattern of omadya is [−−−]
but that of madya is [−\ /].

Phonological differences are also to some extent associated
with differences of pitch. Compare the patterns of kwaNdzaambi and
kwaNdzambi ‘to God’ in the following:

tufwete vvutul’ omatoondo kwaNdzaambi we should give thanks to God

we should give thanks to God of the highest (= the supreme God)

The difference of vowel length in kwaNdza(a)mbi is associated with a
difference of pitch pattern : kwaNdzaambi [−\ / −] as against
kwaNdzambi [−−−].
This study proposes a means of description of the pitch phenomena of Zombo, which superficially appear very complex. They can however be systematically described, although the system which emerges is very far from the type displayed by other Bantu languages whose pitch phenomena have been described in terms of a tonal system.

The data on which the present study is based were collected over a period of four years and were provided mainly by one speaker, Sr. Joao Makondekwa (Makondekwa), born in the village of Quibocolo (Kiboko) in Angola, and brought up in the same district. The findings therefore relate chiefly to his idiolect.

1.1. Sentence contours

Perhaps the chief point to strike one listening to spoken Zombo for the first time is the great variety of pitches which may be displayed in one sentence. The pitch range in normal conversation appears to be slightly more than one octave, and the speaker may touch the highest and lowest points of this range several times during the course of the sentence. In the example shown below, the speaker's voice touched the highest point, or 'peak' of his range three times during the sentence, and the lowest, or 'base' pitch, four times. Points at which peak was touched are indicated by klicka (↑) over a vowel; base pitch points are shown by underlining of vowels.

\[
\text{Konso muũntu sē kaleend' okūssoonga yo.}
\]

Any person will be able to show it to you.

It is to be noted that the sentence begins and ends on base pitch.

1. Use of the klicka to indicate peak pitch was suggested by Professor Guthrie. Throughout the study, (↑) has only this meaning.
The next example is of a longer sentence, again containing three peaks, but with the base pitches farther away from the peaks than in the previous example. Moreover, more than one vowel is at base pitch between the peaks:

\[ \text{Munkhotelo mukũmbi dyazuly, osinga mmõn' ennduumba yina} \]

On entering the aeroplane (lit. car of the sky), you will see the young woman who receives the people on their entry into the plane.

Sentences however may contain more than three peaks, even when quite short, and less than three, even when comparatively long. The next example is of a sentence shorter than the previous one, in terms of number of items; it has, however, five peaks:

\[ \text{Avõ dyoodyõ idib-yidi, orwutî watoma mmeŋwaanga mmbeeng' ayiingi} \]

If this is what has happened, the mother would be cordially hated (with) much hatred by her husband.
The next sentence is longer, but has only two peaks:

\[ \text{Ewaarna wininaang' evvoonga kwantsi yaNgola,} \]

As is the extent of the country of Angola,

\[ \text{iwaarna mphe winaang' ewete wantsi yaayina.} \] (11 items, 2 peaks)

so also is the beauty of that land.

1.1.1. Single-item sentences: peaked and peakless contours

The simplest sentences in respect of pitch phenomena are those consisting of one item only. Two kinds of contour are found in such cases.

i) the pitch contour is characterized by the presence of one high point or peak — never more than one. Before the peak, the pitch rises from base, and after the peak there is a drop or descent.

\[ \text{Asadisi. They are helpers.} \]

\[ \text{Ovilkeene. She has forgotten.} \]

ii) the whole contour is at base pitch, with no appreciable rise or fall:

\[ \text{Tuyaantika. Let us begin.} \]

\[ \text{Nweenda. Go (away) (pl).} \]

Both kinds of contour show the feature of beginning on base pitch.

In these particular examples, the final vowel is also spoken on base pitch.
In a peaked contour, if the first vowel carries the peak pitch, it includes also the initial base pitch, giving a sharply rising contour:

Xmmbuta. They are elders. Yatelâma. I stood up.

\[
\text{\_\_\_}
\]

In very many cases, a peaked single-item sentence also terminates on base pitch. If the final vowel carries the peak, the terminal base pitch is included in the vowel contour, giving a sharply falling pitch:

Wãantû. They are people. Madyä. It is food.

\[
\text{\_\_\_}
\]

The extreme case of such inclusions is where the sentence consists of an item containing one vowel only, and both initial and final base pitch are embraced in its contour, together with the peak:

Ssâ, It is a colour. Nttâ. It is a tree.

\[
\text{\_\_\_}
\]

There are no cases of peakless sentences containing only one vowel.

1. When pitches have been interpreted in terms of tones, it will be found that only some verbals and particles have no high tones; none of the particles of this kind may form a complete sentence, and the verbals always contain more than one vowel.
1.1.2. Longer sentences: pitch phrases

Sentences of more than one item never occur without a peak. In some, the pitches may be distributed round one peak only:

*Lumingu lwamvviÝmba lwakkaka kasålą.*

It is a whole week more (lit. of otherness) that he worked.

As in single-item sentences, the peak may occur at different points, including the initial or final vowels, where as before, the pitch contour of the vowel embraces both peak and base:

*NkhÝ osinga vvaanga?* It is what that you are going to do?  
(What are you going to do?)

*Madya iddyÝ.* It is food that I shall eat.  
(I shall eat food.)

Other sentences may be described as a succession of contours of one or the other kind, i.e., peaked or peakless, all of which begin on base pitch. Such a sentence contains at least one peaked phrase.

In the following examples, the intra-sentence boundaries of the contours are marked by slashes in the written Zombo, and at equivalent points in the English, with divisions shown by vertical lines in the diagrammatic representations of the pitch levels. Peakless phrases are indicated by ---- over the Zombo.
Konso muuntu / se / kaleend' okussoonga yo.

Any person / it is then / he may be able to show it to you.

(Anybody will be able to show it to you.)

Note that /se/ 'it is then' contains initial base and peak pitch, but not a final base pitch.

Eyyaka / kina kavaanga / kyakala / kyankobo kyikily.

The fence / that one which he made / was / of strength indeed (very strong)

wavaangilwaang' effutu / kiu maana / kayumbamena.

He had prepared for him the medicinal bath / so that / he might bathe.

Avo / dygodyo / dibwidi, / onwuyi / watoma mmeengwaanga mmbeeng'

If / this / has happened, / the mother / was cordially hated hatred

ayiingi / kwayakalá dyandí.

of muchness / by her husband. (hated with great hatred)

1. More literal translations of sentences previously cited.

2. From this point onward, marking of base pitch by underlining is discontinued.
For these contours, or groups of pitches, I propose to use the term *pitch phrases*, or, more simply, *phrases*. No other meaning is given the term 'phrase' in this study; it is reserved for pitch description only. A pitch phrase always begins, but does not necessarily end, on base pitch.

The device of 'phrase boundary' indicates that pitches within phrases thus separated are treated independently of those in any other phrase, whether contiguous or not. This has proved to be the only method, among those tried, of handling successfully the great variety of pitches involved.

It should be emphasized that phrase boundary mark does not indicate pause. When in future pauses occur in the material, they will be represented by dash or comma:

```
avō / muuntu / katoloka -- koňko / yovō / kuňlu
if / a person / should break -- an arm / or / a leg

avō / dyoodyō / dibwîdi, / onwutî / watōma...
if / this / has happened, / the mother / was cordially...
```

In the first case, pause does not coincide with phrase boundary, whereas in the second it does. In both cases, however, the stream of speech on either side of the pause is unbroken, despite the occurrence of phrase boundary within it. The concept of phrase boundary is a device to facilitate description of pitch data, and whether or not there is pause is irrelevant. Pause and phrase boundary are to be regarded as independent, though sometimes coincidental, phenomena.

It may be assumed that all examples cited, other than in the course of explanation and discussion, begin and end with boundary, unless the contrary is
indicated by a row of dots:

kaddyānga 'he did in fact eat' implies /kaddyānga/
/kalleēnd' ommokena 'he was in fact able to converse' implies
/kalleēnd' ommokena/

whereas

...mmbeeng' ayiingi 'much hatred' implies 'no phrase boundary before
mmbeeng'

watoma mmeēngwaanga... 'was cordially hated' implies

'no phrase boundary after mmeēngwaanga'

A row of dots flanked by boundary markers indicates 'uncited phrase'.

In discussion, it is occasionally desired to draw particular
attention to the fact that an item is phrase-initial or phrase-final.
In this case the boundary mark may be used, e.g. /avō/ 'phrase-final
and -initial'. Unless such special emphasis is required, however,
phrase boundary marks are not used in this context, and their absence
should not be taken as having the same meaning as in examples quoted
apart from the main body.

1.2. Features of phrases with peak

As previously stated, pitch phrases may consist of one or more
items, and the position of the peak, within either the item or the group,
also varies. Where the sections before and after the peak are of
sufficient length, it is noticeable that the pitch features of each
differ markedly. For the purposes of this part of the discussion,
peaked phrases will be divided into two sections:

i) the rising section, that segment of a phrase preceding, but not
   including, the peak; and

ii) the falling section, that segment of a phrase from and including
    the peak.
The falling section shows the more clearly marked features, and will be described first.

1.2.1. Falling section : marked and unmarked pitch

In the falling section of a phrase, the voice descends, either immediately to base pitch or to a point somewhere near it, or in a series of well-defined 'steps'. In the following sentence, the edges of the steps are indicated by arabic numeral above the vowels forming the edges of steps, i.e., vowels after which the pitch of the voice drops appreciably:

\[ \text{Lumingu lwamvviImba lwakkaka kasala. It is a whole week more that he worked.} \]

The peak pitch is itself the edge of a step, the first pitch after which the voice begins to descend. A falling section may contain a considerable number of these step edges, and more than one may occur in the same item:

\[ \text{Vaava kamána ttelames' endzo aandi anthete} \]

\[ \text{When he finished building his first house} \]

\[ \text{ttelames' here contains two step edges. Note also that one step edge may be followed immediately by another, as 3 and 4 (ttelam)es' e(ndzo).} \]

1. The behaviour of pitches between step edges is dealt with on p. 24 below; see unmarked pitches.
To indicate step edges which are not also peak pitches, an acute accent is placed over the vowel after which drop occurs immediately:

Lumingu lwamviliamba lwákkaka kásala

Vaava kamána télamés' éndzo ándi ánthete

the acute accent replacing the numeral used in the examples above.

Marked pitches are defined in the first place as those after which there is a well-defined drop in pitch. They are thus defined in relation to what follows, not to what precedes. The peak is itself a marked pitch, being the first step edge, immediately preceding the first drop.

This definition does not cover cases such as those illustrated above where, for instance, peak is taken by the final vowel of a phrase. Nor does it cover cases like that of /še/ in the first example on p.19, where the peak, although phrase-final, shows no fall to base pitch.

/dyodyô/ in the last example on p. is another case of the same kind, differing only in that the phrase-final vowel is not also phrase-initial, and does not include initial base pitch. These are both examples of peak pitches, and as such are included under marked pitch, even when there is no 'step'.

In other cases, a final pitch which is not at the peak can be shown as equivalent to a marked pitch, by comparison of sentences in which the item containing it occurs (a) non-finally and (b) finally:

a) zolele vvútuká káka he wants to return only (only to return)

b) zolele vvútuká he wants to return
In (a), *vvüüká* shows the final vowel as the edge of a step; in (b) -ká is the final vowel of the phrase, but is not at base pitch. Neither does -ká / contain a terminal base pitch; this is not an essential feature of the end of a phrase. It is to be noted however that -ká / does not begin on base pitch.

Included in the marked category therefore are

i) pitches after which there is drop immediately following

ii) phrase-final pitches which do not begin at base pitch, although in some cases they may end there.

In between the step edges of the falling section are the *unmarked* pitches. These are defined as pitches after which there is no immediate descent in pitch. The pitch-level in a series of unmarked pitches may be either evenly maintained, or rise slightly towards the edge of the next step:

\[ \text{kalleén' ommokéna} \quad \text{he was in fact able to converse} \]

\[ \text{watoma mmeéngwaanga mmbeéng' ayíngi} \quad \text{she was cordially hated (with)} \]

\[ \text{much hatred} \]

Where the unmarked pitches are not followed by a step edge, as at the end of a phrase, the pitch is either level, or tends to fall very slightly:

\[ \text{kwayakalá dyandi} \quad \text{by her husband} \]

\[ \text{ovilákeene} \quad \text{she has forgotten} \]
The descent in pitch during a final sequence of unmarked pitches is gradual and slight, in contrast to the drop constituting a step; this is always very marked, even when the step is the final one in a long series, as in

Vaava kamāna ttélamés' éndzo ándi ánthete cited on pp. 22-3, where the drop in ánthete is still considerable. Note that the very last unmarked pitch begins at base, unlike the final marked pitch, which may end but not begin on base pitch.

Unmarked pitches can be negatively defined as all those after the peak which are not marked. They can also be defined more positively as

i) non-final pitches after which there is no immediate marked drop in pitch, and

ii) final pitches which begin at base pitch.

1.2.1.1. Pitch patterns as signals of meaning differentiation

Where sentences consist of the same sequence of segmental phones and have comparable structure, a difference of pitch pattern in the falling section can sometimes be correlated with difference of meaning:

**bawāan' éffulu** they found the flower
**bawāan' effulú** they found the place

éffulu 'the flower' and effulú 'the place' are distinguished only by different placing of marked and unmarked pitches. Compare also:

**madya kākaanga** it is food which he roasted
**madya kākaānga** it is food which he tied up

1. The Zombo tie up articles such as food in ntete, baskets woven from palm fronds, resembling the Moses' cradle made by English children from reeds or rushes, and tied each end at the top.
kākaanga 'which he roasted' and kakāanga 'which he tied up' are again
distinguished only by different placing of marked and unmarked pitches.
whereas in the former pair the marked pitch of the distinguished items
is not at the peak, in this latter case the marked pitch also happens to
be at the peak. Compare however the following:

isinga kkāang' omádyá I shall fry the food
isinga kkāanga madyá I shall fry some food

omádyá 'the food' and madyá 'some food' are not distinct in the same way
as effulu 'the flower' and effulá 'the place'. The difference is to some
extent reflected in the English glosses by use of the definite and
indefinite articles, 'the food' for omádyá and 'some food' for madyá,
although the parallel is not exact. One point of difference between
the two is that omádyá cannot occur unless 'the food' has already been
mentioned in the conversation, whereas madyá may occur even in the
opening sentence.

It may also be observed that difference of pitch pattern is
associated with a morphological difference; omádyá has an Initial Vowel
(IV)o-, whereas madyá has not. The distinction is not carried by the
pitch patterns alone; there is a morphological exponent as well.

1.2.1.2. Pitch-bearing elements

All segmental phones are subject to pitch variation if voiced,
whether classed as consonant, semi-vowel or vowel. It has not however
proved necessary to apply the marked/unmarked distinctions to sounds

1. Cf. Guthrie, Bantu Sentence Structure (BSS) p. 17, fn. 1: 'In this
language [Kongo] it is necessary to distinguish initiating from non-
initiating sentences even in a neutral environment'.
other than vowels. There are no cases in which a difference of non-vocalic pitch alone can be interpreted as a signal of any kind of differentiation.

In the falling section of a phrase, a voiced consonant, consonant cluster or semi-vowel takes its pitch from that of the preceding vowel. In the diagrammatic representation below, consonant pitches are marked with dots, as against dashes for vocalic pitches:

1. Consonant pitches were established by playing back recordings at half and quarter speeds.
2. The dots indicate a general rise in pitch and do not necessarily symbolize separate consonant pitches.
1.2.1.3. **Vowel length**

Doubling of a vowel character represents a vowel which is of longer duration than its neighbours written with single letter:

- *wakaanga* he tied up  
- *wakaanga* he fried

- -aa- and -aa- are of longer duration than the preceding of following vowels in each case. There is no interruption of articulation, such as a glide, at any point during the 'long' vowel. In the case of *wakaanga*, the first vowel of the double is marked, and the second unmarked. This indicates that the pitch falls during utterance: the division into 'marked + unmarked' is a systematization of the fall.

Cf. also:

... *mazzíľugu...* of the life

- -if- indicates that the second vowel forms the edge of a step; it does not mean that the pitch necessarily rises during utterance of the 'long' vowel, although this is sometimes the case. Marked pitch, unless phrase-final, is defined in terms of what happens after, not before.

There appears at this stage to be no justification on phonetic grounds for a long/double vowel distinction. This statement however is without prejudice to what may later be said.

It may be added that I have not found it useful to describe in terms of 'syllables'. There are however a few cases in which even greater length is discernible, and this is symbolized by tripling the vowel character:

... *zaaďkala* of males

cf. *aakala* they are males

---

1. Structurally such a distinction is sometimes helpful, although even on this level there are problems in its application. See below, 3.2.3.2. and 3.2.3.5.

2. The term has however been used in previous work of mine; see e.g. Carter, 'Consonant Reinforcement', pp. 144-6, section 3.0.
1.2.1.4. **Non-significant variation**

It has already been emphasized that phrase boundary does not imply pause, though the two may, and often do, coincide. Phrase boundary is frequent in many sentences, as can be deduced from the fact that phrases consisting of one item only are by no means uncommon. It is not surprising therefore that pause often occurs at phrase boundary. Its occurrence is often accompanied by special pitch features.

Phrase-final pitch, whether marked or unmarked, may show a rise:

básadilaanga -- / nllongo myayńgį they used to use -- / many remedies

\[ \text{He looked at it} -- / \text{he saw that} -- / \text{it had broken its leg.} \]

Such a rise is generally characteristic of pause within the sentence. Rise on sentence-final pitch is not found, except in the case of the question indicator e? This is classified as an unmarked pitch, since it begins at base, but it invariably shows rise:

wina kwaŋku kyřmybbot(e) e? are you in completely good health?

1. None in the data contains more than seven items, although this is not regarded as an absolute limit.
The rise of a final pitch is regarded as outside the marked/unmarked contrast system. A final unmarked pitch begins at base pitch, and a final marked pitch does not, whatever the direction of pitch movement thereafter. Non-significant variation of this kind is not, therefore, marked in subsequent citations.

1.2.2. Rising section

In the rising section of a peaked phrase, no regular 'stepped' pattern is discernible. There may be a steady rise of pitch throughout the section, or the contour may show a swift rise or 'jump' at some point. Sometimes again there is little or no rise until the peak is reached. I have not found it possible to systematize contours with a sudden rise in terms of steps, since the point at which a rise of this kind may take place is not consistent. One finds, for instance, variations of the following kind:

\[ \text{wavaanga kyō} \]
he made it

\[ \text{and} \]

\[ \text{and} \]

There is not sufficient regularity to allow of interpretation in terms of a 'upstep'. Such variation is not found in falling sections, but is frequent enough in rising sections to lead to the conclusion that, in the latter, pitch variation is not significant.

1.2.2.1. Neutralization of distinctions

There appears to be no case in which items, differentiated by pitch pattern in a falling section, are similarly distinguished in a rising section by any pitch feature whatever, when the entire item occurs before the peak, and does not contain peak.

1. The question is further discussed in Appendix.
In the following sentences (a) and (b), ffúlu 'flower' is distinguished by pitch pattern from ffulú 'place':

(a) bazolele wwaña ffúlu they want to find a flower

(b) bazolele wwaña ffulú they want to find a place

In the next two sentences, (c) and (d), the two are not distinguished:

(c) ffulu káka ndzoolele it is a flower only that I want

(d) ffulu káka ndzoolele it is a place only that I want

(c) and (d) are indistinguishable sentences, despite the lexical difference of the first item, which occurs in the rising section.

Compare also:

wakaanga madyá and wakaanga madyá

he fried some food he tied up some food
where wakaanga 'he fried' and wakaanga 'he tied up' are not distinguished, in contrast to the previous citations, where the two items contained the peak:

\[ \text{wakaang' omádyá} \quad \text{and} \quad \text{wakaang' omádyá} \]

He fried the food

he tied up the food

where wakaang' 'he fried' is distinct from wakaang' 'he tied up'. Here wakaang' occurs totally in the falling section, while wakaang' shows the first vowel in the rising section.

It is therefore justifiable to state that, where items are totally within the rising section, distinctions carried by pitch pattern are neutralized. This is not always the case however with items which are partially in the rising section, and contain peak pitch.

1.2.3. Position of peak pitch

It will already be clear that the position of peak pitch is of some importance. Before it, there is no differentiation by means of pitch pattern; from the peak onwards, differences of pitch pattern are significant. Pitches before the peak do not carry marked/unmarked distinctions. One object of this study must therefore be to attempt to isolate the factors determining the position of the peak.

Compare the two sentences:

zolele vvutuká and zolele vvutuká

you(sg) want to return he wants to return

The items zolele 'you want' and zolele 'he wants' are not themselves distinguished as to pitch pattern, since both occur totally before peak.
The difference in meaning is however correlated with a difference in the position of the peak in the second item; after *zolele* 'you want', peak occurs on the final vowel of the following item, *vvutuká*, but after *zolele* 'he wants', the peak is on the first vowel, *vvūtukā*. Moreover, in the second case there is a second marked pitch, at a point corresponding to that of the peak pitch in *vvutuká*.

The rising section cannot therefore be left entirely out of account in describing the phrase. There is clearly some factor, connected with the difference of meaning of the items in the rising section here, which controls the position of the peak in the following item.

The same pair of sentences illustrates a further point. Even when an item contains peak, it does not necessarily show the peak in the same position under all conditions. There is no difference in the meaning of *vvutuká* and *vvūtuká*; both mean 'to return', and both stand in the same syntactic relation to the preceding item, but the former shows only one marked pitch, and the latter, two.

Items containing the peak cannot therefore be described in the same way as those occurring totally after peak.

1.3. Peakless phrases

Peakless phrases are always short, consisting at the most of two items:

----------
*effulu kazolele / ikyãki* the place that he wants / is this one

Since the peak, which marks the rising/falling section division, is not present in such a phrase, it cannot be described in quite the same way as a peaked phrase. One now asks whether the peakless and peaked phrases are to be regarded as entirely different in kind, or whether the two can be related in some way.
In some cases there is a meaning difference associated with the presence/absence of peak:

\[
\text{ovviingila / idyambu dyakikoongo} \quad \text{'to wait for'} \quad \text{is a Kongo word}
\]

\[
\text{ovviingila / idvambu dyakikoongo} \quad \text{'to replace'} \quad \text{is a Kongo word}
\]

\text{ovviingila 'to wait for' shows a peak; ovviingila 'to replace' forms a peakless phrase. The two sentences are comparable in structure; the first item stands in each case in the same syntactic relation to the following part of the sentence. In both sentences also, the first item occupies an entire phrase. It is clear that either a peaked or a peakless phrase may occur at this point, and the conclusion appears to be that the peakless phrase is simply a variant of the basic or canonical phrase, and that there is no essential difference.}

A rather different pair:

\[
\text{effulu / Ykazolele} \quad \text{the flower} \quad \text{is what she wants}
\]

\[
\text{effulu / Ykazolele} \quad \text{the place} \quad \text{is what she wants}
\]

\text{Here there is a semantic difference in the first phrase, but neither difference of phrase type, nor difference of pitch pattern. As in the rising sections of peaked phrases, the distinction is neutralized. Compare also:}

\[
\text{effulu kyammbote / ikya\text{"akki} \quad \text{the prettiest flower} \quad \text{is this one}
\]

\[
\text{effulu kyammbote / ikya\text{"akki} \quad \text{the best place} \quad \text{is this one}
\]

\text{In each case the initial item is totally within the rising section of a peaked phrase, and there is no distinction between effulu... 'the flower' and effulu... 'the place'.}
Comparison of these two pairs suggests that the peakless phrase may be, at least in some cases, a truncated version of a peaked phrase. All four are comparable, in that the head item of the first phrase stands in the same syntactic relation to the item forming the second phrase.

The peakless phrase may be described as one which simply happens to stop before the point appropriate to the appearance of a peak.

It should be repeated here that not all peaked phrases include a rising section containing whole items before the peak. The peak may occur in the initial item, and even on the first vowel of that item:

\textit{Iffu keándsi} it is the custom of the country

Such a phrase has no truncated peakless parallel. If the second item be omitted, the first item appears as

\textit{Iffu} it is the custom

Further, a phrase with rising section does not necessarily appear as a peakless phrase when truncated:

\textit{ffulu kāka ndzolele} it is a flower only that I want
\textit{cf. ffulu kāka} it is a flower only

and \textit{ffulu} it is a flower

Compare also:

\textit{ffulu kāka ndzolele} it is a place only that I want
\textit{cf. ffulu kāka} it is a place only

and \textit{ffulū} it is a place

The relationship between peaked and peakless phrases is patently not a simple one. In some cases there is contrast between peaked and peakless; in others, a peakless phrase corresponds to the rising section of a peaked phrase; but some rising sections have no peakless parallel.
1.4. Phrasing

To be adequate, an account of the pitch phenomena must cover, not only the pitches within phrases, but also the phenomenon of phrasing itself. Items in a sentence are arranged in one or more phrases -- sometimes many more than one -- but the number of items in the sentence appears to be quite irrelevant to the number of phrases. Compare the two sentences quoted on p. 19, which contain the same number of items, but a different number of phrases:

Konso muńtu / së / kaleend' okūssoonga yo. (6 items, 3 phrases)
Anybody / will / be able to show it to you.

(1)
Nyyaka / kina kāvaanga / kyākala / kyankkobo kīkilu. (6 items, 4 phrases)
The fence / that one which he built / was / very strong.

Cf. also:

Wamona ffulu kina ńwańtu beddilaáng' owáńtu. (6 items, 1 phrase)
He saw a place which has people who eat people. (...where there were cannibals)

For each sentence cited in this chapter, however, there is only one possible arrangement of the items in phrases; phrasing is systematic, and the system is rigid. There is no question of 'breath groups', or of some factor of convenience in manipulating stretches of speech; as has been shown, phrase boundary is not to be confused with pause, which may occur within a phrase. Quite long stretches of utterance, containing several phrases, may be produced without pause, and many phrases consist of one item only. Nor does increase or decrease in the articulation rate affect the system, which operates regardless of either factor.

1. Marking of peakless phrases by overlining is now discontinued.
1.4.1. **The meaning of phrasing: syntax and phrasing**

There is no case in which a difference of phrasing appears to signal *lexical* distinction:

\[ \text{avô / omwaana / kadila if / the child / should cry} \]
\[ \text{wasâmurninaang / omwaana tusaãnsu she used to tell the child stories} \]

/ omwaana / occupying a whole phrase, and ...omwaana... neither initial nor final in a phrase, both mean 'the child'.

In the next pair however the phrasing difference can be correlated with a distinction other than lexical:

(a) asadisi ñkkaka ákalaanga / muna njënga other helpers who were / in the vicinity

(b) asadisi ñkkaka / ñkalaanga / muna njënga other helpers / were / in the vicinity

(b) may constitute a complete sentence; (a) may not. In traditional terms, ...ákalaanga 'who were' (non-initial) is a 'direct relative', and / ñkalaanga '(they) were' (phrase-initial) is an 'indicative' verbal. Since peak pitch is also a marked pitch, the two may be described as having identical arrangement of marked and unmarked pitches, as well as of segmental phones. The only distinction is that the relative verbal is non-initial in a phrase, whereas the indicative verbal is phrase-initial.

This suggests that the position of an item in a phrase, particularly whether it is phrase-initial or non-initial, may be governed by its syntactic status. In the pair quoted immediately above, indeed, the phrasing appears to be the only marker of distinction between the relative and indicative verbals. In the / omwaana / and ...omwaana... examples, on the contrary, the phrasing distinction is not the only one. / omwaana / may be described as a 'subject', and ...omwaana... as an 'object'; the two are distinct in pitch pattern, however, as well as phrasing.
Phrasing would appear to be a syntactic marker, some units of structure being marked as 'phrase-initial' and others as 'non-initial'. One task must therefore be to examine the relationships between syntax and phrasing, and discover what correlations can be established.

This part of the data offers a well-defined field of study, and will be approached first, before detailed examination of the pitch features within phrases.

For this purpose a syntactic analysis is required, and I have adopted the technique of analysis devised by Professor Malcolm Guthrie and applied to a dialect of Kongo sufficiently like Zombo to permit many of the definitions and observations to hold good for both. There are nonetheless several important differences; further, some of the sentences to be examined here include elements of structure not dealt with in Bantu Sentence Structure (BSS). To meet the case I have added to the list of units, labelling in the same manner by upper case letters of the Roman alphabet, and have increased the number of subsidiary labels where necessary. Letters of the Greek alphabet are also used in some instances.

Before the method of analysis and labelling is described in more detail, it is useful briefly to outline the main divisions of item category in Zombo.

1. The components of a sentence are described as slots, filled by one or more items belonging to a substitution class — the class of items capable of filling the slot. Slot and filler together constitute a syntactic unit. See Guthrie, BSS pp. 5-6. Frequent reference will be made to BSS in the rest of this chapter, and in Chapter 2.
1.5. **Item categories**

There are three main item categories: particle, nominal and verbal. In addition there are hybrids, called nomino-verbals, which are assigned either to the nominal or to the verbal category, according to the direction of their affinities in particular cases. An outline of nominal morphology is given in Appendix VI, and of verbal morphology in Appendix VII, to which the reader is referred for further information; that presented here is kept to a minimum.

Particles are morphological invariables, taking no part in any system of agreement. The pitch pattern of a particle may vary in different contexts, but this aspect is not under consideration at the moment. Examples of particles are kaka 'only' and kaansi 'but'.

Nominals are items belonging to one of twenty-one nominal classes. All nominals contain an element (which may be zero) which is an exponent of their class. Some consist of a prefix (class marker) and a stem; others may have the class marker in the form of an element which is not a prefix. Pronominals are often of this latter type, and some of these may have two class marker elements. Nominals may be either independent: controlling the agreements of other items, such as verbal prefixes, or dependent: with class controlled by an independent nominal. Some items are described as semi-dependent; the class of these is determined by the general class meaning. Where the class marker is a prefix, or an element initial in the item, it may often have an Initial Vowel (IV) attached, which does not appear in all contexts. Examples are:

\( (o)ma-vata \) villages (independent nominal of Class 6; prefix \((o)ma-,\) stem \(-vata)\)

\( (o)m-oo-m-o \) these (matters) (dependent or semi-dependent nominal of Class 6; class markers \((o)m-\) and \(-m-)\)
Thirdly there is the category of **verbals**. These are built up round a core, or **radical**, and have at least one other element, a final vowel, as in *waan-a 'find(imper.)'*, whose radical is *-waan- 'find'*. The structure of a verbal however may contain many more elements than these, and include a concord prefix, tense signs, object infix and continuative suffix, e.g.

**ba-ku-tu-waan-a-anga** they find us  
(ba- concord prefix 'they', Class 2  
-ku- tense sign of present/future  
-tu- object infix 'us'  
-waan- radical 'find'  
-a- post-radical vowel  
-anga continuative suffix)

The hybrid **nomino-verbals** share characteristics of both the nominal and verbal categories. The independent nomino-verbals are sometimes called infinitives; they may control agreements like independent nominals, e.g.  
(o)w-waan-a 'to find' (Class 15), but may include object infixes, like verbals: (o)ku-tu-waan-a 'to find us'. The dependent nomino-verbals resemble nominals, in that they may take some of the pre-prefixes proper to nominals (such as i- 'it is'), and verbals, in that they may include tense signs and other elements of verbal structure, e.g. (i)bakutu-waananga '(it is) they who find us'. The concord prefix of a dependent nomino-verbal is not, however, capable of taking an IV.

1.6. **Method of syntactic analysis and description**

In some sentences, the structure is described as consisting of a **nucleus**, with or without other elements of structure, or units, defined in relation to the nucleus.
1.6.1. Identification of the nucleus

The nucleus is defined as 'the lower limit beyond which contraction cannot take place without the disappearance of the structure' and further as that element of a structure which 'needs no support'.

Many sentences consist of a nucleus only, e.g.

Tuyaantika. Let us begin. Dyāmbote. It is good.

Where there is more than one item in a sentence, very often it is no difficult matter to identify the nucleus. In the sentence

Edyaadī / idyavwanga. This / is what used to be said.

the second item can be identified as the nucleus, since it is capable of forming a complete sentence in itself, whereas the first one is not.

A nucleus may however consist of more than one item:

oluta ttõma llongōkaanga he usually learns best
(lit. he usually does + to do well + to learn continually)

Nothing can be taken from this structure, still leaving a complete sentence. None of the three components can stand by itself as a nucleus; they support each other, and the whole forms a nucleus.

2. Ibid., p. 7.
In some cases the task is more difficult. For instance, the pitch features displayed by the candidate for the position of nucleus may be such as are never found in a similar item forming a complete sentence. Compare:

\[
\text{ollongōkaanga / mambu mayīngi} \quad \text{he learns / many things}
\]

but \[\text{ollongokaanga maāmbu} \quad \text{he learns things}\]

\text{ollongōkaanga} may stand, with this pitch pattern, as a complete sentence; \text{ollongokaanga...} may not. One may say that, pitch-wise, the following item \text{maāmbu 'things'} supports \text{ollongokaanga 'he learns'}. There is however no other candidate for the nucleus in the second sentence.

The identification of the nucleus is not therefore based on the same criteria throughout. When there are problems, the decision in some cases is arbitrary.

1.6.2. **Primary units**

The elements of structure, or syntactic units, of a single-nucleus sentence, are defined firstly in relation to the nucleus. A unit defined in this way is termed a **primary unit**, and labelled with an upper case letter of the Roman alphabet. E.g.

\[
P \quad A
\]

\[
\text{edyaadī / idyānvwwaanga} \quad \text{this / is what used to be said}
\]

The nucleus is labelled \(A\). The unit labelled \(P\), hereinafter to be (1) more closely described , has been defined in relation to \(A\). Primary units are labelled without joining lines to \(A\).

The terms in which units are defined are as follows.

1.6.2.1. **Position** of the unit in relation to the nucleus: whether before, after, or not fixed in either position. The unit P illustrated in 1.6.2. above precedes the nucleus in all but one special case.

1.6.2.2. **Control of agreement.** Agreement is largely by means of prefixes. In the example above, the prefix dy- of the verbal A is controlled by the item at P, which is a pronominal in Class 5. Substitution of a nominal in another class at P would entail a difference of verbal prefix in A:

\[
P \quad A
\]

emamă / imavowaanga these / are what used to be said

Replacement of edyaadī by emamă as P entails the replacement of the verbal prefix dy- by m- in the A verbal.

In some cases a unit may be characterized by non-agreement with the nucleus:

\[
A \quad Q^+ \\
ba'vovaang' eđi they used to say this
\]

The item marked Q+ and glossed as 'this' belongs to the substitution class of a unit characterized by absence of agreement with A; neither may control the other.

1.6.2.3. **Substitution class (SC)** of the unit. The SC is the set of items which may fill the unit slot. A unit may contain sub-units which are not part of its minimum structure (see 1.6.3. below); these are not included in the SC of the unit. The latter is limited to those items which may take initial position in the unit structure. In the terminology used here, such items are said to **head** the unit; the SC then consists of items which may constitute the **unit head**.

1. Guthrie, **BSS** pp. 6 and 8.
For example, the P unit illustrated in the sentence

\[
\begin{align*}
P & \quad A \\
\text{edyaad\textsuperscript{I}} & \quad / \quad \text{id\textsuperscript{y}avwaanga}\text{ }\text{this } / \text{is what used to be said}
\end{align*}
\]

may be headed only by nominals (including pronominals) and independent
nomino-verbals, never by a pure verbal, dependent nomino-verbal, or particle.
The P/SC is then said to consist of nominals.

P may contain items in other than nominal categories:

\[
\begin{align*}
P & \quad X \quad A \\
\text{edyaad\textsuperscript{I}} & \quad \text{oz\textsuperscript{e}vo} & \quad / \quad \text{id\textsuperscript{y}avwaanga}\text{ }\text{this therefore } / \text{is what used to be said}
\end{align*}
\]

The item marked X and glossed as 'therefore' is a particle; it forms part
of the P unit, but may never head it.

1.6.2.4. The technique of analysis developed in BSS also makes use of
the criterion of support. In the present application, little use is
made of this, since there are certain difficulties in determining the
nature of support, touched on under 1.6.1. above. One kind, however,
which is relatively easy to identify and describe, is shown in cases
where one unit cannot appear without the presence of another. An
obvious instance is the support given to all other primary units by the
nucleus: none can appear without it.

1.6.2.5. Another factor taken into consideration in Guthrie's approach is
that of cohesion -- whether or not there is the possibility of other
units occurring at certain points in the structure. For example,
there may be an X unit between A and Q+:

\[
\begin{align*}
\text{A} & \quad Q+ \\
\text{b\textsuperscript{a}vwaang' ela\textsuperscript{a}} & \text{they were given the chance}
\end{align*}
\]

\[
\begin{align*}
A & \quad X \quad Q+ \\
\text{bavewaanga k\textsuperscript{i}k\textsuperscript{ilu} ela\textsuperscript{a}} & \text{they were indeed given the chance}
\end{align*}
\]

1. The line joining P and X is explained under 1.6.3., p. 49 below.
This criterion likewise is not utilized much in the present description. It is not the purpose here to present a full syntactic analysis, merely to define units by means of the least possible number of criteria, in order to establish their phrasing characteristics. It has proved possible, for instance, to define $Q+$ without reference to the degree of cohesion it exhibits with preceding, or even following, units. Moreover, it has been found that the phrasing characteristic of $Q+$ is independent of whether or not there is an 'unfilled slot' before it. The emphasis of description is not the same as Guthrie's.

1.6.2.6. Some of the characteristics and factors set out above may be most readily demonstrated by reference to the entailments of structures containing the unit under discussion.

The term entailment is derived from Professor Wilfred Whiteley's work in Yao and Swahili, and it is as well briefly to explain the sense in which it is used here, since it differs slightly from the original.

Two different structures are said to be entailed when they display a relationship, such that all the components of each can be related to particular components of the other. The following, for example, form an entailed pair:

1 2
(a) wamona woɔŋa he saw (= experienced) fear
1 2
(b) woonga kámona it is fear that he saw

To denote the relationship between particular components of each structure, the term representation is used. wamona 'he saw' in (a) is said to be represented by kámona 'that he saw' in (b); woɔŋa 'fear' in (a) is likewise represented by woonga 'it is fear' in (b).

2. Gleason has recently introduced the term agnate for structures related in this way. See Linguistics and English Grammar, p. 199, fn.
Neither structure is given priority, such that one is assumed to be a derivation of the other. Entailments are thus different from transformations; neither structure is regarded as 'original' or 'kernel'. The relationship of the entailed pair illustrated could equally well be described by putting (b) first and saying that kāmona in (b) is represented by wamona in (a), and woonga in (b) by woonga in (a).

Diagrammatically the relationship could be symbolized:

(a) 1 2
(b) 1 2

or

(a) 1 2
(b) 1 2

There is here no significance in the fact that only one of the lines is broken. (1)

Elements representing each other in different structures are termed entailment partners. In the example, both elements in both structures have each one entailment partner in the other; e.g. wamona (a) and kāmona (b) are partners.

In the present study, use is made of entailments in the identification and definition of syntactic units. The description then takes as datum point a structure in which the unit under discussion occurs. If, for instance, a unit in (a) were under discussion, the fact that (b) is an entailed structure would be shown as follows:

(a) wamona woonga he saw fear
(b) woonga kāmona it is fear that he saw

with arrow leading from the datum structure to the entailment. This

1. All examples are 'full entailments' in Whiteley's terminology.

It should be stressed that entailed structures are different structures.
'The man saw the dog' and 'The dog saw the man' are examples of the same structure, therefore not entailments; in Gleason's terms they are enate.
does not imply that (b) is derived from (a), merely that (a) is the point of reference for the moment. There is however the implication that, given (a), (b) can be inferred.

The presentation of the entailments may be accompanied by a diagram to show the representational relationships of the various units. In this case, the unbroken lines will lead from the unit under discussion to its entailment partner:

(a) 1 2
\[ \times \]
(b) 1 2

indicates that the first unit in (a) is under discussion.

Numerals have been used to symbolize elements of structure in the examples, but these are now replaced by the units labels to be used.

So far each element has had one entailment partner in the partner structure, but it sometimes happens that a unit may have two representatives in a partner structure:

Diagrammatically represented:

The Q+ unit is represented by two entailment partners, P* and Qs.

1. Unit labels are explained in Chapter 2, sections 2.1. - 2.2.1.
Entailments are brought in chiefly to help in distinguishing between units which share a sufficient number of characteristics to make differentiation difficult. For instance, the Q+/Q- distinction in objects, described in 2.1.7. below, is difficult to establish, since both units are alike in matters of position, control, support and, to some extent, substitution class. Although there is a morphological distinction, in that nominals in the Q+/SC have Initial Vowel, and those in the Q-/SC do not, this is not enough to show syntactic difference; appeal to the entailments, however, makes the matter clear.

The labelling has sometimes been varied to bring out a particular point under discussion. Members of some SCs, for example, may function as a nucleus; a case in point is the pair already cited:

\[
\begin{align*}
\text{(a)} & \quad \text{wamona woonga} \quad \text{he saw fear} \\
\text{(b)} & \quad \text{woonga kəmona} \quad \text{it is fear that he saw}
\end{align*}
\]

\text{woonga 'it is fear' filling A in (b) is a member of the Q-/SC functioning as nucleus. To emphasize this point, the symbol A in (b) may be replaced by } \text{Q-}. \text{ Any symbol in a square is to be interpreted as 'member of the (label) SC functioning as a nucleus'. Thus the entailment could also be shown as}

\[
\begin{align*}
\text{underlining the fact that Q- is a member of the Q-/SC, as well as a representative of Q- in the datum structure. Other special forms of labelling are explained at their introduction.}
\end{align*}
\]

1. This notation is adopted from Guthrie; see BSS, especially pp. 24-5, no. 31.
1.6.3. **Subsidiary units**

Sometimes within a primary unit there are subsidiary units, bearing to the head of the primary unit a relationship similar to that obtaining between the primary unit and the nucleus.

In the following sentence, the nucleus (A) is followed by a unit labelled L, the characteristics of which are that (i) it occurs always after A, (ii) its agreement is controlled by A and (iii) the SC consists of dependent nomino-verbals:

\[
A \quad L
\]

\text{madyā malaambilu} \quad \text{it is food which has been cooked}

In the next example, there is a unit \( Q^- \), followed by another labelled L, but joined by a line to the \( Q^- \) label:

\[
A \quad Q^- \quad L
\]

\text{badidiingė madyā malaambilu} \quad \text{they always ate food which has been cooked}

The characteristics of L in this context are (i) it occurs after \( Q^- \) and not before it, (ii) its agreement is controlled by the item at \( Q^- \) and (iii) the SC consists of the same set of dependent nomino-verbals that may fill primary L. There is therefore sufficient resemblance between this unit, defined in relation to \( Q^- \), and the primary L unit, defined in relation to A, to justify use of the same label. Since however the new L unit is not defined in relation to the nucleus, but to another primary unit, it is termed a **subsidiary unit** (or sub-unit); the fact that it is within \( Q^- \) is shown by the line joining the L label to that of the \( Q^- \) unit head.

Some primary units include sub-units themselves containing su-units, and even greater spirals of complexity. I have not however found it necessary or useful to distinguish secondary, tertiary, etc. units. For present purposes, the primary/subsidiary (= non-primary) distinction has proved sufficient.
In the labelling, different relationships of this kind are indicated by joining lines above and below:

\[
A \quad Q \quad L \quad J
\]

\[
badiidiingé madyá malaambilu / kwankåkeentö
\]

they always ate food which has been cooked / by a woman

The unit labelled J is a sub-unit within L, itself a sub-unit within Q-. J is then joined to L by a lower line, to distinguish this relationship from the Q- : L one, where L is directly related to the primary unit head. Units are labelled as soon as defined, and thereafter; otherwise they are left unlabelled. The English gloss of a unit under discussion is underlined, as in the last three examples.

1.6.4. Correlation of syntax and phrasing

The aim of the first part of the study (up to the end of Chapter 2) is to show what correlations may be established between syntax and phrasing, using the definitions of syntactic units resulting from the analysis proposed. More than one approach is possible here. One may examine the \textit{junctures} of particular pairs of units to see whether or not the juncture is characterized by phrase boundary, or one may look at individual units to see whether they regularly occur in phrase-initial, non-initial or phrase-final position, or more than one of these.

The latter course has proved the most satisfactory, in respect of adequacy as well as of economy. To follow the 'juncture-based' approach, it is necessary to list all possible junctures between the units disengaged; the 'unit-based' approach merely requires a listing of the units, with observations on their phrasing characteristics. It has proved possible to state the relationship of phrasing and syntax in fact by describing a unit as having the phrasing characteristic \textit{'phrase-initial'}, \textit{'Non-initial'} (or sometimes both). Only in one case has it seemed useful
to state the phrasing characteristic as 'phrase-final'. In other cases where units are consistently phrase-final, it is found that the fact can be stated differently, in terms of the unit's regular occurrence before another which is always phrase-initial. This is included in the definition of the unit, before phrasing is examined, and the 'juncture-based' approach therefore repeats information given at an earlier stage.

One instance of this is sufficient for illustration. The P (subject) and A (nucleus) units are always separated by phrase boundary when P stands before A. The nucleus A is however always phrase-initial, whatever unit precedes it. The fact that P may precede A is stated in the definition of P. It is then unnecessary to describe the P : A phrase boundary in terms of juncture. Moreover, it is still necessary to add that P is itself a 'phrase-initial' unit, and this piece of information would have to be given separately, in dealing with junctures where P is second unit. The two simpler statements, that both P and A are phrase-initial, include everything relevant in the syntax-phrasing correlations, once both units have been defined.

It occasionally happens that a sub-unit is phrased differently from the corresponding primary unit (although one of the most striking facts to emerge from the study is the rarity of such cases). The statement of the phrasing characteristic, given at the end of each unit section, includes the primary and subsidiary occurrences, unless it has been found desirable to create a special sub-division for a particular subsidiary function.

Some units are of very complex structure, containing sub-units within sub-units, as exemplified by the last example in 1.6.3. Sub-units at all

1. The Xa unit, 2.1.2.1.
2. E.g. the Pa sub-division of P, 2.1.4.1.
levels may be of a type which requires phrase-initial position, and the primary unit may then contain several phrases. The phrasing characteristic as stated for a particular unit applies only to the initial, or head, item. The phrasing of such sub-units as it may contain should be looked for under the unit label headings. (The characteristics are set out in Table I at the end of Chapter 2.)

1.7. **Limitations of analysis**

Some limits have perforce been set on the delicacy of the analysis, to avoid overloading the description and notation at the present stage.

1.7.1. **Unitary nominal groups**

When a nominal group fills a slot, only the head item is given the unit upper case labelling. To distinguish the remaining members from unlabelled (because unidentified) items, the former are given lower case Roman numerals, e.g.

\[ P \superscript{ii}_{emabuula} \superscript{iii}_{mamayanzizimyànhengakyàsa} \]

the bark (= skin) of the roots of the nkengakyàsa shrub

The roman numerals after \( P \) indicate that the items ahve been classed as members of a unitary nominal group, filling the \( P \) slot.

It is useful here to give a sketch of the structure of nominal groups. There are three broad divisions:

(i) **chain group**: a sequence of nominals displaying agreement throughout the group. A chain group may include dependent pronominals:

\[ P \superscript{ii}_{omasaazimoomo} \]

these waters

The direction of control of agreement is no necessarily from
the initial to the following items: control may be exerted
in either direction. Compare:

\[ V^+ \quad ii \]
\text{ezasak ōntangwa some times}

which consists of an independent nominal \text{entangwa 'times'} controlling
the agreement of a dependent nominal whose stem is \text{-aka 'some, other'}.

Chain groups display agreement by means of prefixes and other
concordial elements which are not extra prefixes, and in this they are
distinct from the next category (complexes). Nothing can be taken from
any of the nominals in the two examples, still leaving a complete nominal.

(ii) complex: a sequence of nominals linked by concordial agreement whose
exponent is extra dependent prefixes attached to complete nominals:

\[ P \quad ii \quad iii \]
\text{emabuula mamyāanzi myānkhangakyaása}

the bark of the roots of the nkangakyasa shrub

Here \text{emabuula 'bark'} controls the prefix \text{ma-} attached to \text{myaanzi 'roots'},
which in turn controls the prefix \text{mya-} attached to \text{nkhangakyaasa}. A
group of this kind is sometimes termed a possessive complex.

The linkage may be of a slightly different order, in which one item
controls the dependent prefixes of more than one of the other members
of the group:

\[ P \quad ii \quad iii \quad iv \]
\text{entsuṣu amvālakázi āntomeséno áte}

the chicken of the nursing mother of the improvement of the saliva
(chicken given to a nursing mother to bring back her appetite)

1. Cf. Guthrie, BSS p. 8, and no. 8 on p. 20, where a similar example
   is called a 'stepped complex'.

Here the first item *entsusu* 'chicken' controls both the prefix *a-* attached to *mwalakazi* 'nursing mother', and the prefix *ya-* attached to the third item *nttomeseno* 'improvement'. (Both prefixes are in the nominal class of *entsusu*, despite their morphological difference.)

(iii) **appositional group**: this term is applied to a group of nominals filling one slot, but not displaying the agreement obligatory in chain groups and complexes:

\[
\begin{align*}
P & \quad ii \quad iii \quad iv \\
\text{yandi mpfumu} & \quad \text{he the chief (yandi Class 1, mpfumu Class 9)} \\
S & \quad ii \\
\text{munu vata} & \quad \text{in there the village = there in the village (munu Class 18, vata Class 5)} \\
\text{zaui vwa} & \quad \text{they a ninesome = the nine of them (zaui Class 10, vwa Class 5)} \\
\end{align*}
\]

More than one of these three kinds of group may be combined in a mixed group, as in the following:

\[
\begin{align*}
P & \quad ii \quad iii \quad iv \\
\text{yandi mpfumu avata dyo dyo} & \quad \text{he the chief of village that (that village)} \\
\end{align*}
\]

Here the first two items form an appositional group, the second and third a possessive complex, and the third and fourth a chain group. The whole however is regarded as one unitary group, filling the P slot.

The different internal structure of such groups is not reflected in the labelling; all items other than the unit head are given the lower case Roman numbering.

1.7.2. **Unitary verbal groups**

Verbals consisting of more than one item are likewise labelled by means of the unit label for the first item, and lower case Roman numerals for the rest of the group:
These verbals are traditionally known as 'compound' tenses. The term 'compound' however is used with a special meaning in this study, and verbals such as the above example are called simply 'verbal groups'.

1.7.3. Sub-divisions of substitution classes

Sometimes the SC of a unit contains more than one type of item, with consequent restrictions on co-occurrence with other units. An SC containing both nominals and verbals, for instance, will have associated restrictions of this kind. Nominals are capable of entering into relationships with other units which are denied to verbals, and vice versa.

The A (nucleus) is a case in point. The SC of the nucleus contains both nominals and verbals:

\[ \text{A mady} \text{ it is food (nominal) A baw} \text{ana they found (verbal)} \]

A nominal nucleus may be followed by a unit labelled L:

\[ \text{A L mady} \text{ malaambilu it is food which has been cooked} \]

but a verbal functioning as A may not be so followed. Conversely, a verbal filling A may be followed by a unit labelled Q+:

\[ \text{A Q+ baw} \text{an' efful} \text{u they found the place} \]

whereas a nominal filling A, other than a nomino-verbal (which mady is not), may not be followed by Q+.

The A unit is not however labelled differently for each case; the emphasis of description is shifted to the definition of L and Q+, by stating that primary L may only follow nominal A, and Q+ may only follow a verbal or nomino-verbal nucleus.

1. See Appendix VII for an outline of verbal morphology, and Appendix IX for the 'auxiliary' verbals in groups.
It is to be noted however that syntactic units may be sub-divided, on the grounds that the sub-divisions show sufficient similarity to be accorded the same general label, but in addition display some difference worthwhile reflecting in the labelling. Subsidiary labelling of this kind, such as the 'plus' and 'minus' signs attached to Q in some examples already quoted, will be explained when first introduced. The SC is a set of items defined in the first place by their incidence; the unit is only partially defined by the SC.

1.7.4. Negative structures, interjections and ideophones

As stated in the Prefatory Note, these have been omitted from the description altogether, for reasons of space. If they are to be well described, the work would become too long.

1.8. Orthography

In the following chapter, the major concern is with arrangement of items in phrases. Pitch features will be indicated by the methods already described, but no mention will be made of them in the text, until Chapter 3. Phrase boundary is shown by slash in English and Zombo, and pause by comma or dash. Pause features as described under 1.2.1.2. are not indicated.

The orthography used for segmental phones is that developed by the writer and used in previously published work, with some amendments. These are irrelevant to the immediate concern, but will be explained.

---

1. As in Carter, 'Consonant Reinforcement', but not as in Makondekwa and Carter, 'Notes on Legal Terminology'. One major change is that vowel sequences are here spelt more phonetically: e.g. mwaana 'child' and not muana.
will be explained later in the proper place. Meanwhile, the reader is asked not to be perturbed by apparent inconsistencies such as the following:

basadilaanga nilloŋgo they used to employ remedies

but basadilaanga / nilongo myayĩngi they used to use / many remedies

1.8.1. Elision

Many sequences display elision, or omission of the final vowel of an item when the following one begins with a vowel. -a is the vowel most commonly elided:

men' osĩnga vvāanga those which you are going to do
cf. mena kasĩnga vvāanga those which he is going to do

Elision of -a is indicated by apostrophe. Other cases of elision are shown by bracketing the elided vowel:

edyaambu dyŏdy(o) ozeévo this matter therefore
(lit. the matter this therefore)

1.9. Summary

Sentences in Zombo can be described as consisting of one or more pitch-phrases, the characteristic of which is that they begin on base pitch, the lowest of the conversational register. Phrase boundary does not imply pause, though pause and phrase boundary often coincide, and there are special pitch features associated with pause.

Two types of phrase are distinguished: the 'peaked' and the 'peakless'. The relationship between the two is not entirely clear,

1. In 4.2.3.3., p. 209.
but in some cases at least, the **peaked** phrase may be regarded as a truncated version of a peaked phrase.

Peaked phrases typically consist of two sections, the rising and the falling. The rising section may be absent; it is defined as the stretch up to, but not including, the peak pitch. The falling section is that part of the phrase from the peak onwards, including the peak. In the falling section, pitch variation carries distinction of meaning; some variations are correlated with morphological variation.

Two varieties of pitch are distinguished: the marked (including the peak) and the unmarked. Only vowels are carriers of this distinction, and it operates in the falling section only. Some pitch features are classed as outside the marked/unmarked system of distinction, e.g. the final rising pitch characteristic of phrase-final pause. Items containing peak pitch require special consideration, and the position of the peak is also found to be significant.

The arrangement of the items of a sentence in phrases appears to be correlatable with the syntactic status of the items. A method of syntactic analysis is adopted as a basis for investigating these apparent correlations. The analysis is a form of the 'slot and filler' technique. Slot and filler together constitute a syntactic unit, and it is proposed to describe the syntax-phrase correlations in terms of the 'phrasing characteristic' of the unit: phrase-initial, non-initial or phrase-final. Certain limitations are placed on the analysis, and the procedure for identifying and labelling units is outlined.
Chapter 2

SYNTACTIC UNITS AND THEIR PHRASING

2.0. Sentence types

Two broad categories of sentence are distinguished: those containing one nucleus only, and those containing more than one nucleus. The analysis is first applied to single-nucleus sentences, then to sentences containing more than one. The phrasing characteristics of the unit are given after definition and illustration of the unit. It is found, however, that there is sometimes a phrase boundary within a unitary group; this question is discussed in 2.3. Finally the evidence is summed up, for and against the hypothesis that phrasing is a syntactic marker.

2.1. Syntactic units of single-nucleus sentences

2.1.1. The nucleus: general label A

The substitution class (SC) of the nucleus includes items of all three categories, verbal, nominal and particle. Particles are considered under 2.1.20. The A/SC also includes nomino-verbals, both independent and dependent. Two major divisions are discernible: the stable and the stabilized. A stable item is one which fills the A slot without pre-prefixation, e.g. makākilaanga 'it used to stop'. A stabilized item is one which has a stabilizing pre-prefix, e.g. i-kāvaangaanga 'it is what he used to do'. Examples of both kinds are shown below:

stable verbal:  
A  
emeenga / makākilaanga / vava vāau  
the blood / used to stop (flowing) / at once  
A  
ozeēvo / waboonga mabayā  
therefore / he took some planks
A ii 
tusinga vve'ng' évvolóla we shall avoid repeating

The nucleus here consists of a verbal group.

A 
tuyaantika let us begin

stable nominal : A
maváta they are villages

A ii
mavata mámmbote they are villages of goodness (fine villages)

The nucleus here is a nominal group.

A
nká kasinga vváanga? it is what that he is going to do?
(what is he going to do?)

A
edyaadí / dyalládi this / is of truth (true)

The nucleus dyá-ládi 'it is of truth' has a dependent (possessive) prefix, which is not a stabilizer.

Where the nucleus is a stabilized item, the subsidiary label i- is prefixed to the general label, to symbolize the set of the stabilizing prefixes (one of which is i-):

stabilized nomino-verbal: iA
ikávaangaanga it is what he used to do

iA
oyaandi / iwásaalaanga she / is the one who used to stay

iA
oyaandi / sekammóna he / it is then that he will see

i- symbolizes se- 'it is now/then' as well as i- 'it is/they are the'.

In the next example it symbolizes u-, which is one of a series of stabilizing pre-prefixes with members in all nominal classes:
Phrasing. The nucleus is invariably phrase-initial, whatever kind of unit precedes; if there is no preceding item, the nucleus is of course sentence-initial as well.

A nucleus consisting of a verbal or nominal group begins the phrase at the first item of the group. Note that this statement says nothing about either the pitches within the phrase, or about what happens after the nucleus. The nucleus may contain no marked pitches at all, but this is irrelevant to the fact that it itself begins the phrase. The nucleus may constitute the whole of a phrase, or it may not; it may be followed by other items, in other units, within the same phrase. Whatever the situation after the nucleus, there is phrase boundary immediately before it. In the following sections, one will encounter units whose phrasing varies, sometimes according to whether the unit is primary or subsidiary, sometimes for no immediately apparent reason. None of this applies to the nucleus; it is always, in whatever environment, phrase-initial at the head.
2.1.2. X unit

The X slot is filled by a particle, an item outside the system of concordial agreement displayed by the nominals and verbals. The SC of the X unit does not, however, contain all recorded particles. The class is very limited, consisting of some dozen items. X may stand before the nucleus or after it, although the members of the X/SC capable of taking pre-nucleus position appear to be limited to two: ozeėvo 'therefore' and naanga 'perhaps'.

X preceding nucleus: X
ozeėvo / waboonga mabayā therefore / he took some planks
X
naanga / ntsā perhaps / they are red antelope

X following nucleus: X
mchī ozeėvo? it is what therefore? (what is it then?)
A X
bavewaanga kīkīlī elaū they were indeed given the chance
A X
woonga kāka kalénda yo mmwēna it is fear only that he could feel for it

X may also appear as a sub-unit. Since no other units beyond A have been illustrated, exemplification is limited to subsidiary X within primary X:

A X
wayangalāla beēni kīkīlū he was happy very indeed (very happy indeed)

1. Based on the 'x item' of Guthrie. See RSS, p. 17, no. 2 I have elevated this to a 'unit', since it can contain sub-units in Zombo, albeit limited to subsidiary X.

2. See e.g. G particles, 2.1.20, and Beta particles, 2.2.1.

3. Alternative analysis is possible here; ozeėvo and naanga may be better classed as Beta.
Phrasing. Primary pre-nucleus X is phrase-initial; post-nucleus X is non-initial. X as a sub-unit is non-initial, phrased with the preceding item.

2.1.2.1. Xa unit

Xa is similar to X in that it is filled by a particle, but the Xa/SC consists of one item only, the question indicator e? Xa is the only unit which requires final position in a sentence, and it never contains sub-units:

A  ii Xa
basinga vvütük' e?  are they going to return?

A  Xa
oakuundi ŋaku / ayingi benąang' e?  your friends / is it many that they are?

Phrasing. Xa is non-initial.

(1)

2.1.3. K and Ka units

The SC of the K head consists of dependent nomino-verbals, sometimes termed 'indirect relative'. As a primary unit, K occurs only after a nominal nucleus:

1. See Guthrie, BSS, p. 20, nos. 13 and 15, and p. 21, no. 18. The BSS K unit differs from the Zombo unit here given the same label in several respects. The morphological type illustrated by Guthrie can only stand as a nucleus in Zombo, e.g. /udikkadýlaanga 'it is how it is'. Some instances of BSS nuclei are paralleled by K units in Zombo, e.g. no. 13 on p. 20 of BSS:

Q     ii   A
BSS nsangu zambi ntangidi  cf. Zombo ntsaangu zambilntsaangidi
news  bad   I have read  it is bad news that I have read

(BSS underlining for the nucleus is replaced here by the label A; the underlined English indicates the BSS nucleus paralleled by Zombo K unit.)
A K
llēkwa kaveeno it is a thing that she has been given

A K
kumaaki zittūukaānga it is from eggs that they come

IA X K
Inthaangw' ozeevō kavewaanga it is the time therefore that he was given

Note that primary K follows primary X. The characteristic of K is that it is never in agreement with the nucleus. K tenses morphologically resemble A tenses, but in some tenses are distinguished by the shape of the Class 1, 3rd person subject prefix:

A
wazola he wanted cf. kazola which he wanted

(o)taangidi he has read kataangidi which he has read

There is a sub-division of K which follows a nucleus consisting of an independent nomino-verbal (INV) of Class 15, and repeats the radical of A. (1)

This is labelled Ka:

A Ka
vvutulwā kivvutulwaānga it is to be returned that it is returned

(it is always returned)

K may appear as a sub-unit; the following example illustrates a K sub-unit in relation to a member of a nominal group at A, but not the head:

1. Zombo A:Ka appears to be the equivalent of BSS Kongo D : A. See Guthrie, BSS, p. 19, no. 12, and p. 28, summary definition. The D unit is not required for Zombo; the emphasis of description is shifted to Ka.

The BSS D unit is not however a nucleus:

D A
BSS dya betidya cf. Zombo ddyā beddyāānga

they are eating it is to eat that they are eating

(In the labelling of the BSS Kongo example, the label A replaces the underlining used by Guthrie to indicate the nucleus of a sentence.)
it is the origin of the word / that one which we call

Members of the K/SC may fill the A slot, with the addition of one of the stabilizing pre-prefixes. This is symbolized as $iK$

$emaam$ / $ikavaangaanga$ / $this/is what he used to do$

$oyaandi/sekamn$ / $he/it is then that he will see$

The $kavaangaanga$ 'which he used to do' and $kamn$ 'which he will see'.

**Phrasing.** K is always phrased with the preceding item.

A feature frequently associated with K, but not with Ka, is the division of a nominal group of which the last member is a pronounal, forming an appositional group with the preceding item, and followed by a K verbal:

$emboongo zozo zaloongo / zina bataambulaanga / zakalaanga$

The said marriage goods / those which they received / were

The K item $bataambulaanga$ 'which they received' stands in relation to $zina$ 'those', the last member of the nominal group; there is a phrase boundary between this item and the penultimate member of the group.

More than one K unit may appear in relation to the same item; in this case K is always preceded by a pronounal (which begins a phrase):

$likwa kaveeno / kina kafwe tele ddy$a

it is something that she has been given / that which she should eat

(she has been given something which she is supposed to eat)

As far as the head of K itself is concerned, however, it is invariably non-initial, and Ka shares this characteristic.

A stabilized K item filling iA follows nucleus phrasing, and is phrase-initial.
2.1.4. P and P* units

The units labelled P are traditionally termed the 'subject'. Within this category one may distinguish several sub-divisions.

i) P controls the agreement of A. This is limited to co-occurrence of P with A consisting of a verbal with a concord prefix, or a nominal with dependent prefix:

\[
P \quad A
\]

\[
oyaandi \quad wåsasaalaanga \quad she \quad used \ to \ remain
\]

\[
oyaandi \ controls \ the \ prefix \ wå \ of \ the \ verbal \ filling \ A.
\]

\[
P \quad iA
\]

\[
oyaandi \quad iwåsasaalaanga \quad she \quad is \ the \ one \ who \ used \ to \ remain
\]

\[
P \quad A \quad K
\]

\[
ellumbu \quad kibî \ wîzidi \quad the \ day \quad is \ too \ bad \ that \ you \ have \ come
\]

\[
(you \ couldn't \ have \ chosen \ a \ worse \ day \ to \ come)
\]

\[
ellumbu \ 'day' \ controls \ the \ prefix \ ki- \ of \ kibî 'it \ is \ too \ bad'.
\]

\[
P \quad A
\]

\[
edyaadî \quad dyaliûdi \quad this \quad is \ of \ truth \ (this \ is \ true)
\]

\[
edyaadî \ 'this' \ controls \ the \ possessive \ prefix \ dya- \ attached \ to \ lîûdi.
\]

ii) P does not control the agreement of A, A being of a kind where such agreement is impossible. This is the case where both P and A are

1. Guthrie, BSS, particularly p. 17, no. 1, and p. 27, summary definition.

The remarks concerning Q in these descriptions do not, however, apply to Zombo.

2. Cf. Maw, Sentences in Swahili, p. 42: 'Although this agreement system is described as a realization of relationships, it cannot conversely be regarded as a criterion for the existence of such relationships ... since there are classes of items at P \( \overline{\text{c}} \) = predicate, equivalent to the nucleus A here \( \overline{\text{a}} \) where the relationship cannot be shown'.


independent nominals, or when A is a stabilized dependent nomino-verbal of the K/SC:

\[
P \quad A
\]

\[
\text{ewwuta} / \text{kiyikā} \quad \text{to give birth} / \text{is to add to oneself}
\]

\[
P \quad A
\]

\[
\text{endziimbu} / \text{nkhātu} \quad \text{money} / \text{it is emptiness} (\text{I hadn't any money})
\]

\[
P \quad \text{emaamā} / \text{ikāvaangaanga} \quad \text{this} / \text{is what he used to do}
\]

iii) \(P^*\) controls the agreement of primary K:

\[
P^* \quad A \quad K
\]

\[
\text{engudi} / \text{llekwa kaveeno} \quad \text{the mother} / \text{it is something that she has been given} (\text{the mother has been given something})
\]

\(\text{engudi} '\text{mother}' \text{controls the agreement of } \text{kaveeno 'that she has been given'}.\)

\(\quad\) I have here adopted Guthrie's device of labelling \(P^*\) to indicate that \(P^*\)is supported by A but not in direct relationship with it \(\cdot\) In Zombo, \(P^*\) is not totally unrelated to the following structure, since it may exert control over the agreement of K. Similarly \(P^*\) may control Ka agreement:

\[
P^* \quad iA \quad Ka
\]

\[
\text{edyambu} / \text{sēssaka disakidi}
\]

\(\text{the affair} / \text{it is now being too much that it has become too much}
\]

\(\text{(the situation is now quite intolerable)}\)

iv) \(P^*\) controls the object substitute (label Qs) of the verbal in A:

\[
P^* \quad A \quad Qs
\]

\[
\text{ooomō} / \text{ollongokaanga mō} \quad \text{these} (\text{matters}) / \text{he learns them}
\]

\(\text{ooomō 'these' controls the agreement of mō 'them'}.\)

v) \(P^*\) controls the agreement of some other element of structure outside \(P^*\)

which is not a primary unit:

1. \(\text{engudi} \) (Class 9) may control Class 1 agreement, being the name of a person.

2. Guthrie, BSS, p. 20, no. 15, introduces \(P^*\) in a sentence of structure similar to that given here under (iv); see also pp. 20-22, nos. 16-17.

Maw, Sentences in Swahili, pp. 42-6, calls the equivalent element in Swahili the 'referent'.
Here P* controls the agreement of the item marked (ii) in P. Where both P units are present, P* precedes P.

vi) P* plays no part in the structure which follows, and is said to be 'in hiatus':

\[
P* \quad ii \quad A
\]

eammbuta zawaantu / kkinya the elders of the people / it is dancing

(\text{the elders...dance})

The SCs of the P and P* heads are co-extensive and consist of nominals (including pronominals). Independent nomino-verbals are contained in the P/SC, but not dependent nomino-verbals (relative tenses). The P head may appear with or without Initial Vowel; all examples so far show IV, but the next two do not:

\[
P \quad A
\]

asoneký / bassonekaangá writers / write (cf. oasoneki)

\[
P \quad K \quad iA
\]

edi kázola / idyakkalá what he wanted / was of being (was to be)

(cf. eedi)

There appears however to be no syntactic difference between P heads with (3) and those without IV.

P and P* precede the nucleus in the majority of cases, but in one type of instance, P may follow. In this, the nucleus has Class 5 agreement, and P consists of a nominal group headed by a pronominal:

\[
A \quad X \quad P \quad ii
\]

dyamifunu bešni / edi dyássungamená vo it is of necessity / this of remembering that (it is necessary to remember)

---

1. P is of the kind described under (ii), where agreement between P and A is impossible, since A is an independent nominal.

2. Cf. Guthrie, \textit{ESS}, p. 21, no. 16.

3. There is a preference in some cases for IV, but it does not seem obligatory. On the other hand, my own attempts to leave it out were criticized as mphova zandzatúna 'snapping speech'.
Phrasing. P and P* as primary unit begin a phrase. Two points should be noted here. Firstly, the phrasing characteristic applies only to the head item of a unit. A P unit may contain several kinds of sub-unit, some of which require phrase-initial position. An example is the following:

\[
P \quad E \quad A \quad ii \\
ese / yōngudi / bafwete kkalé \quad \text{the father / and mother / must be}
\]

The unit labelled E is a sub-unit in P, which requires phrase-initial position (see 2.1.6.). A P unit may indeed contain several phrases, but this is irrelevant to its own phrasing characteristic, of beginning a phrase at the head.

Secondly, a P sub-unit also begins a phrase, except for the sub-division to be discussed in the next section.

2.1.4.1. Pa unit

Pa is a sub-unit, controlling the agreement of a K verbal:

\[
P \quad A \quad Pa \quad K \quad ii \\
ekkuma / nkhY omuúntu kafwete yyindwíl' èndza zoolé káka?
\]

the reason / is what that the person should remember two worlds only?

(why should the person remember only two worlds?)

Pa here controls the agreement of K: ka- of kafwete is governed by omuúntu.

Pa always precedes the K unit to which it stands in relation, and like P, may appear with or without Initial Vowel:

\[
Pa \quad ii \quad K \\
vaav' ñkulu éeto básadilaangá dyo then that our ancestors used to practise it (when our ancestors used to practise it) (cf. oakulu)
\]

Phrasing. Pa is a non-initial unit, phrased with the preceding item.

1. E.g., the P sub-unit in G. See 2.1.20.
2.1.5. \( L \) unit

\( L \) is sometimes called the 'direct relative'. The head of \( L \) consists of dependent nomino-verbals. Like \( K \), \( L \) can occur as a primary unit only after a nominal nucleus. The \( L/SC \) in this case displays agreement with the nucleus. \( L \) as a primary unit is in fact not very common, except in proverbs:

\[
\begin{align*}
A & \quad L \\
\text{nttela ussūkaānga} & \quad \text{it is stature which comes to an end} \\
& \quad \text{(one stops growing -- but not learning)} \\
A & \quad L \\
\text{Lludi wayęndaang' emmbaānza} & \quad \text{it is Truth (personified) who went} \\
& \quad \text{(walking to ) the city}
\end{align*}
\]

As a sub-unit, \( L \) follows the item controlling its agreement (not necessarily directly):

\[
\begin{align*}
P & \quad L \\
enanaāzi dyalémbi bbwaāka / dyatũutwaanga & \quad \text{a pineapple which has failed to become ripe / was pounded}
\end{align*}
\]

Here \( L \) is in agreement with the \( P \) head. \( L \) may also be controlled by

1. Cf. Guthrie, **BSS**, p. 24, no. 26 and p. 28, summary definition. The morphology of \( K \) is not the same in Zombo as in **BSS Kongo**, and the observations on the differentiation of \( L \) and \( K \) in this respect do not, therefore, hold good here.

2. Cited in Makondekwa and Carter, 'Notes on Legal Terminology', p. 41, with an incorrect gloss. This article also contains differences in orthography, and grammatical and tonal approach, whether explicit or implicit.
a member of a nominal group:

```
    1  2  3  4  5
   maamāna mawāsonono mazzifung / kina kikkalkaanga
```

all those (questions) of the life / that one which is

kina 'that (one)' controls the subject prefix of kikkalkaanga 'which is' and
is itself in an appositional group with (ma)zzifung '(of) life', forming
part of a larger group. Cf. also:

```
   A  2  L
   maambū / mēnā mākoondwā mēfūnu they are matters / those which lack profit
   (matters of no utility)
```

L following a pronominal member of an appositional group is extremely
common.

Members of the L/SC may be stabilized by a pre-prefix, and fill the
iA slot:

```
P  2  L
   ebuula dyāandi / idyätutwaanga the bark of it / is what used to be pounded
```

This kind of structure is an entailment for iA : L in which iA is a
stabilized nominal:

```
   L
  idyaagni dyāvovwaanga it is this which used to be said
  ↓  ↓  ↓
P    L
   edyaagni / idyāvovwaanga this / is what used to be said
```

```
   L
  ↓  ↓  ↓
P    L
   or, showing SC of iA :
```

```
   L
  ↓  ↓  ↓
P    L
```

Phrasing. L is invariably non-initial, and this characteristic serves
to distinguish it from the morphologically similar A verbs, which are
always phrase-initial:
P ii L
asadisi ākkaka ākalaanga some other assistants who were

P ii A
cf. asadisi ākkaka / ākalaanga some other assistants / were

L follows the same phrasing pattern, whether primary or sub-unit.

A feature frequently associated with L, as with K, is the division
of an appositional group of which the last item is a pronominal controlling
the agreement of L; the group is divided at the pronominal, which is then
phrase-initial:

A ii L
maambū / mēna mākoonchwa mffūnu they are matters / those which lack profit

Members of the L/SC with stabilizing pre-prefixes, functioning as IA,
follow nucleus phrasing and are phrase-initial.

2.1.6. E unit

An E unit head consists of a nominal or nomino-verbal with ye-/yo-
'and, with' attached. It serves to extend any unit, or part of a unit,
which is nominal or verbal. The term extension is here used in contrast
to expansion. An extension introduces new material of the same order,
i.e., a unit of the same status as that extended. An expansion lengthens
the unit by means of new material within that unit, but not of the same
order as the unit head. An example of expansion is the addition of
items to form a possessive complex:

P ii
emabuula mamūyāanzi the bark (= skin) of the roots

since the second item is within P, but not of the same status as the
unit head. An L unit also forms an expansion to the unit in which
it occurs. An example of extension is:

1. Some members of the L/SC belong also to the C/SC may be stable
in the A slot. See 2.1.8., p. 82, under (iii).
emabuula / yemyāanzi / iyākalaanga the bark / and roots / are what were since -myāanzi in the E unit exerts control over the agreement of A. The head P item is in Class 6, the E nominal in Class 4. The verbal has Class 8 subject prefix. If E were absent, Class 6 agreements would be used. (1)

1. My usage of 'extension' and 'expansion' is slightly different from those of Whiteley and Guthrie (which differ from each other), but is closer to Whiteley's.

In Yao Sentences, Whiteley contrast the terms as follows: 'The term expansion is applied to a unit which, occurring at specific points within a given sentence, effects a lengthening of it. By contrast, extensions merely constitute the addition of new material to a given stretch, either by conjunction, parataxis or parenthesis' (p. xxv; my italics). Extension of a unit in my terms would probably constitute expansion of a sentence in Whiteley's terms. Much, of course, depends on the interpretation of the term 'given stretch'. From the examples in Yao Sentences, it would appear that 'extension' is applied mainly to material which ends the sentence. The Beta unit (2.2.1. below, and example at end of this footnote) with following Alpha unit, would constitute lengthening and therefore extension in Whiteley's terms; possibly also the 'unlinked' units of e.g. 2.1.7. below, which are paratactically added.

Guthrie, RSS, p. 2, no. 5, uses 'expansion' for both kinds of lengthening. Note that ye- attached to a nominal heading an E unit is not the same as /yē/ 'and' classed as a Beta particle (2.2.1.). The latter may stand before A verbals and before a P unit. Compare:

P A E
1
P1 A1 α
meenga / imēvvaanaang' ēmwaanda ... / yē / mooyo/uvvaanaang' ēmwaanda

blood / is what gives the spirit / ... / and / the life / gives the spirit

with

P E A
meenga / yemooyo / yikkalāanga

blood / and life / are...
Examples are limited to E extending units already defined.

A E
nkodzi mbo / yongulu / they are goats / and pigs

A X E
kyammbi kikilu / yeykoono / emfunu it is very bad / and lacking profit

A X E
dyafiimpwaanga dyaka / ye fimpululwa

it was examined again / and re-examined (lit. and to be re-examined)

Note that E extending a verbal, as in the last example, is limited to ye-/yo- attached to independent nomino-verbals of Class 15, which contain a verbal radical.

A E
idyatutwaanga / yoloeke swa / it is what was pounded / and steeped

L X E
mana makilekolweeloong kal - / yoyyalwa

those which had previously been softened -- / and spread out

More than one E may extend the same unit:

L El E2
kina kitiambulaanga / yoyvvooke swa / yottwiik' emeng a

that which receives / and passes on / and sends the blood

E may also extend a member of a chain group or complex:

A E
nkwo' anttim' avvolo / yewanziiizi kikilu

she is possessor of a heart of calmness / and of a patient person indeed

(she has a very calm and patient disposition)

E here is the extension of avvolo 'of calmness'; ye- is attached to a nominal with possessive prefix wa- in agreement with ntkima 'heart'.
Entailments for E are of a rather different kind from those previously described. There is no entailment in which E is represented by another unit: E has no entailment partners in this sense. Its position is fixed, after the unit it extends. There is however an entailment at a level lower than that of the syntactic unit, in which the lexical element in E is 'switched' with that of the unit extended:

\[
\begin{align*}
&\text{A} \\
&\text{nkhuombo} / \text{yongulu} \quad \text{they are goats} / \text{and pigs} \\
&\text{E} \\
&\text{ngulu} / \text{yenkhoombo} \quad \text{they are pigs} / \text{and goats} \\
&\text{A} \\
&\text{wa}saaanzula / \text{yollaambula wò} \quad \text{he widened} / \text{and deepened it} \\
&\text{E} \\
&\text{walambula} / \text{yossaanzula wò} \quad \text{he deepened} / \text{and widened it}
\end{align*}
\]

This feature will become of importance later, in helping to distinguish E from a unit which is morphologically similar, and has a co-extensive SC and similar position in relation to the unit (1) with regard to which it is defined.

**Phrasing.** Whether primary or sub-unit, E is phrase-initial. As with all units, the phrasing characteristic applies only to the head of E.

---

1. The N unit, discussed under 2.1.11., p. 89 below.
2.1.7. Q units

Several kinds of Q (direct object) unit can be disengaged in Zombo, and not all show the same phrasing characteristic. The Q/SC head consists of nominals (including pronominals), a restricted set of particles, and one verbal. The two latter categories are dealt with under 2.1.20.

The first major distinction is between nominals with Initial Vowel (IV) and those without. In the following examples, a plus sign is added to the unit label for the former, and a minus sign for those without IV:

\[
A \text{ Q+} \quad \text{wavoond' endzuz1} \quad \text{he killed the cerval cats}
\]

\[
A \text{ Q-} \quad \text{wavoonda ndzuz1} \quad \text{he killed some cerval cats}
\]

The morphological difference is the exponent of a syntactic distinction which is most simply demonstrated by reference to some of the entailments of structures containing the two kinds of Q unit.

1. The label Q and the term 'direct object' are adopted from Guthrie; see BSS, p. 17, no. 1 and p. 27, summary definition. Q in Zombo differs radically however in that it never occurs as a primary unit before the nucleus, and not all Q units have associated object substitutes (label Qs, see further below, p. 78). The BSS examples of pre-nucleus Q are paralleled by A : K in Zombo, e.g.

\[
\text{BSS nsusu zoole mi\botsondele cf. Zombo ntsusu zoole2 mivoondele}
\]

chickens two they have killed it is chickens two that they have killed

I have here replaced Guthrie's method of marking by the labels used in this study.
Both Q+ and Q- have passive entailments, but whereas Q+ participates in two, Q- has only one, and it is not the same as either of the Q+ entailments. The subsidiary label -w is used to symbolize 'verbal containing radical with passive extension' in the examples.

Q+ passive entailment (i):  
\[
\begin{array}{c}
A \\
\text{wāvoond' endzuzī} \\
P \\
\text{endzuzī / zāvoondwa}
\end{array}
\quad
\begin{array}{c}
P \\
\text{A w}
\end{array}
\quad
\text{the cervical cats / were killed}
\]

diagrammatically represented:

\[
\begin{array}{c}
A \\
\text{Q+}
\end{array}
\quad
\begin{array}{c}
P \\
\text{A w}
\end{array}

\]

Q+ passive entailment (ii):  
\[
\begin{array}{c}
A \quad \text{Q+} \\
wāvoond' endzuzī \quad \text{he killed the cervical cats} \\
iA \quad \text{Lw} \\
\text{indzūzi zāvoondwa} \quad \text{it is the cervical cats that}
\end{array}
\quad
\begin{array}{c}
\text{he killed}
\end{array}
\]

diagrammatically represented:

\[
\begin{array}{c}
A \\
\text{Q+}
\end{array}
\quad
\begin{array}{c}
iA \quad \text{Lw}
\end{array}

\]

Q+ is represented in the first entailment by P, and in the second by iA -- a stabilized nominal nucleus.

Q- passive entailment:  
\[
\begin{array}{c}
A \quad \text{Q-} \\
wavoonda ndizuY \quad \text{he killed some cervical cats} \\
A \quad \text{Lw} \\
\text{nduzi zāvoondwa} \quad \text{it is cervical cats that were killed}
\end{array}
\]

diagrammatically represented:

\[
\begin{array}{c}
A \\
\text{Q-}
\end{array}
\quad
\begin{array}{c}
A \quad \text{Lw}
\end{array}
\quad
\begin{array}{c}
\text{Q-} \\
\text{Lw}
\end{array}
\quad
\begin{array}{c}
\text{or}
\end{array}

\]

Here Q- is represented by A -- a stable nominal nucleus, not stabilized, as for Q+. 
It will be remembered that the enclosure of a label in a square indicates 'member of the .../SC functioning as a nucleus'. The members of the Q-/SC can be described as capable of functioning as a nucleus, without the addition of a stabilizing pre-prefix. Members of the Q+/SC may not do so. *ndzuzi* 'it is a cervical cat/they are cervical cats' has no pre-prefix, in contrast to *indžuži* 'it is /they are the cervical cat/s' which has stabilizing pre-prefix *i*-.

There is a further entailment which is limited to Q+:

\[
\begin{align*}
& \text{A} & \text{Q+} \\
\text{wāvoond}' & \text{endzuzi} & \text{he killed the cervical cats} \\
\text{P*} & \text{A} & \text{Qs}
\end{align*}
\]

\[
\begin{align*}
\text{endzuzi} / \text{wavoonda zō} & \text{the cervical cats / he killed them}
\end{align*}
\]

Qs symbolizes 'object substitute'. Q+ has two entailment partners here, P* and Qs. Q- cannot be represented by either.

A third kind of entailment is that in which A is represented by K, and the Q element by a nucleus. Both plus and minus divisions of Q take part in an entailment of this variety, but the division of A which represents each is different:

\[
\begin{align*}
& \text{A} & \text{Q+} \\
\text{wāvoond}' & \text{endzuzi} & \text{he killed the cervical cats} \\
\text{iA} & \text{K} & \text{it is the cervical cats that he killed} \\
\text{indžuži kávoonda}
\end{align*}
\]

\[
\begin{align*}
& \text{A} & \text{Q-} \\
\text{wavoonda ndzuži} & \text{he killed some cervical cats} \\
\text{A} & \text{K} & \text{it is cervical cats that he killed} \\
\text{ndzuži kávoonda}
\end{align*}
\]
The diagrams may be placed side by side to emphasize the difference:

\[
\begin{align*}
A & \xrightarrow{Q^+} \\
\text{(IA)} & \quad \text{but} \quad \text{A} & \xrightarrow{Q^-} \\
& \xrightarrow{(Q^-)} \quad \text{or} \quad \text{A} & \xrightarrow{Q^-} \\
\end{align*}
\]

Here again Q+ is represented by a stabilized nucleus, and Q- by a stable one.

It will be seen that different glosses have been used for the two divisions. The definite article has been used for Q+, and an indefinite article, or none at all, for Q-. This to some extent reflects the distinction, but the correspondence is not exact, and these usages cannot always be maintained.

Both kinds of Q unit are post-nucleus, and if X is present, Q follows it:

\[
\begin{align*}
A & \xrightarrow{X} \xrightarrow{Q^+} \\
\text{bavewaanga kikilu ela} & \text{they were indeed given the chance}
\end{align*}
\]

If A is extended by E, Q may follow within E, in the same relation to both A and the head of E:

\[
\begin{align*}
A & \xrightarrow{E} \leftarrow \xrightarrow{Q^+} \\
\text{wasaaanzula / yollaambula wo} & \text{he widened / and deepened it}
\end{align*}
\]

The same applies to Q as a sub-unit within L; if L is extended by E, Q may occur within L and stand in the same relation to both L and the head of E. The next example shows two E units, both extending L; the Q unit stands in the same relation to all three:

\[
\begin{align*}
\text{kina kittaambulaanga / yovvyookaes / yottwik' omeenga} \\
\text{that which receives / and passes on / and sends the blood}
\end{align*}
\]
Both Q+ and Q- may occur as 'unlinked' units. An unlinked unit is one of a sequence bearing the same label, but not the first of the sequence. Unlinked Q+ is uncommon, but Q- is often found unlinked:

A Q-1 ii Q-2 Q-3
bātwaasān̄ga / myendo nyānkhuni / madyook̈ / ngubā

they used to send / bundles of firewood, / manioc, / peanuts

Pause before an unlinked unit is very frequent.

Phrasing. Q+ is always non-initial, unless unlinked. Such units are often of considerable length and complexity, and often the whole may be included in one phrase:

P _____ ii _____ L _______ Q+ _____ ii _____ iiii ___ iv __ v
eyyitu / kina kyātaambulaang̣' entsaāngu zōōzo zānjyeelēlo antsaāng̣' ánkkeēnto

the kinsman / that one which received these news of the illness of the female relative

All five items of the nominal group filling Q+ are in the same phrase.

As previously pointed out, however, the phrasing characteristic applies only to the head of a unit. Q+ extended by E, for instance, shows the customary phrasing of the E head, which is always phrase-initial:

A Q+ _____ ii _____ E _____ ii
wawūmin' ēdyōško dyāngani / yengub' āngani

he respected the manioc of the other man / and the peanut of the other man

The phrasing of items in Q+ after the head depends on the nature of the items: whether or not they are heading a slot, and whether or not the slot requires phrase-initial position. On the other hand, there are examples of Q+ unitary groups divided between more than one phrase, particularly when L or K is involved:

A _____ ii Q+ _____ ii L _____ Q+
osinga mmōn' enndúumba / yina yittāambulaāng̣' owaāntu...

you will see the young woman / that one who receives the people...

1. For an example of unlinked Q+, see Appendix I, no. 1.
The phrasing of Q- is not so clear.

Unlinked Q- is phrase-initial, as in the ... / madyooko, / ngubu example at the top of the previous page.

Single-item Q- units are otherwise non-initial, as in wavoonda ndzuzy 'he killed some cervical cats'.

However, at this stage of the investigation, there appear to be phrasing 'alternations' for Q- consisting of a group, or containing a non-initial sub-unit (such as L). Some such units are indeed phrased with the preceding item:

A Q- L Q- L Q+
wamona ffuli' kin' owahantu bedfilaang' owahantu

he saw a place which has the people who eat the people

The Q- primary unit here is quite lengthy and complex, but the whole is phrased with preceding A. In some other cases, the Q- head begins a new phrase:

A Q- ii
badasilaanga / nllongo myayyingi they used to use / many remedies

A Q- ii Q+ ii
waslimbaanga / eki kyalloong' enndezi zawana

they undertook / this (work) of teaching the nurses of the children

1. It will later be seen that the variation can be described without recourse to the concept of 'alternation' (4.2.3.4.). At the moment however, given the criteria for the definition of syntactic units set out in Chapter 1 (1.6. - 1.6.4.), there appear to be no grounds for distinguishing syntactically between phrase-initial and non-initial Q-.

2. eki is the form without Initial Vowel, cf. eeki.
The internal phrasing of a Q unit is, as before, dependent upon
the types of sub-unit it contains, if any. Sub-units show their
customary phrasing, e.g. L and Q+ are non-initial, as in the example
wamona ffulū... above; E begins a new phrase at the head:

\[ \begin{array}{c}
Q- \\
\text{wavaanga kkũnda / yomeeza he made a chair / and a table}
\end{array} \]

Q- then comes to the fore as the first of the syntactic units
defined which does not appear to have obligatory phrasing, unless the
slot is filled by a single item (non-initial) or is unlinked (phrase-
initial). This does not necessarily mean that the syntax-phrasing
correlation hypothesis is thereby disconfirmed. It may indicate that
the analysis is not delicate enough at some point. It is to be noted
that the Q- units which are phrase-initial, apart from unlinked Q-,
am\textit{always contain at least two items}, and where items stand next to each
other in a sentence, particularly if they are within a unitary group,
one assumed some kind of syntactic relationship.

The converse, however, is not true. Q- units which are non-initial
may also contain more than one item, whether in the form of further
members of a nominal group, or of sub-units.

(1)

2.1.8. C unit

In traditional terms, the C unit is the complement. Primary C
follows the nucleus, and no other units save Q, X or M (see 2.1.9.)
may stand between. The SC of the C head consists of three kinds of item,

1. The label C replaces the label Qa in BSS, p. 19, nos. 8-9. The
change has been made partly because the Q unit is already over-burdened with
subsidiary labelling, and partly because the SC of the Qa unit illustrated
in BSS is limited to dependent nominals, capable of displaying agreement.
The C unit of Zombo includes independent nominals incapable of showing
agreement.
independent nominals without Initial Vowel, dependent nomino-verbals and nominals with dependent prefix displaying agreement with the nucleus, and one particle C is limited to occurrence after a very small number of radicals, the most common of which are: -in- and -kal- 'be', -bookel- 'name, term', -yikil- 'call, name', -yindwi(l)i- 'think of as'.

The various kinds of item which may head C are illustrated below:

(i) independent nominal:  
\[ \text{A X C} \]
\[ \text{winaangā mphe / mwan' aNdzaambī} \]
he is also / the child of God

(ii) nominal with dependent (possessive) pre-prefix:  
\[ \text{P ii A C} \]
\[ \text{eppaa u kyo kyo / kyakala kyangolē} \]
the said spade / was of strength (was strong)

(iii) dependent nomino-verbal (limited to L verbals of Tense 2):  
\[ \text{A ii C} \]
\[ \text{fwete k kala wākubama} \]
she must be (one who has become) prepared

Since nominals of the C/SC never have IV, the C/SC is co-extensive with the Q-/SC as far as this item category is concerned. C resembles Q- in another respect also, in that it may take part in an A : K entailment:

1. Dependent nomino-verbals filling C are limited to L verbals of Tense 2, the Narrative Past. For numeration of tenses, see Appendix VII.

2. The particle vo 'that'; see below under 2.1.20., p. 115, second example.
A C
njina wakubama
 I am ready (lit. one who has become ready)

C           K
wakubama njina
it is ready that I am (it is a ready person...)

A C
or
A K

C may occur as a sub-unit; it is shown below in an L sub-unit:

E Q+ ii iii L C

yovvuvik' ezzifung kyankkeento / ndyona winanga wavilamenwa

and to ease the life of the woman / that one who is pregnant

Phrasing. C consisting of a single item is phrased with the preceding item (unless unlinked). Some C units consisting of more than one item appear as phrase-initial, while others do not. C thus resembles Q-in phrasing, as well as in the nominal section of its SC, and in its entailments.

1. Agreement between A and C does not extend to persons; it is limited to nominal classes only. The C item here has a prefix of Class 1, 3rd person, while the A verbal has a subject prefix of Class 1, 1st person.
2.1.9. **M unit**

The SC of the M unit consists of pronominal stems with *kwa-* attached. There are only six in the set:

- **Class 1, 1st person** *kwaame*
- **Class 2, 1st person** *kweeto*
- **2nd person** *kwaaku*
- **2nd person** *kweeno*
- **3rd person** *kwaandi*
- **3rd person** *kwaau*

The pronominal stem displays agreement with the nucleus, under a rather eccentric system of agreement; Class 1, 3rd person, serves for all classes other than 1 and 2, whether singular or plural. The example below shows a Class 6 verbal prefix in A, 6 being a plural class:

```
P   A   M
omabaya / ... / mamanaanga kwândi
```

the planks / ... / were getting **completely** used up

The M unit shows the Class 1, 3rd person member of the set.

*M* is here glossed in various ways: 'completely, in fact, quite, quite well, perfectly well' which approximate to the meaning it has in Zombo.

The M unit follows the nucleus:

```
P   ii   iA   M
emwaan' ñmpfumu / ímpfumu kwâandi
```

the child of the chief / is the chief **in fact**

(a chief's son is to be treated with the respect due to the chief himself)

---

1. See Guthrie, *BSS*, p. 23, no. 22 and p. 28. *M* is defined slightly differently for Zombo; it may occur even if *P* is present, the SC has a different distribution, and it may occur in association with a nominal nucleus, as in the last example on this page.
M precedes all other post-nucleus units, such as Q:

A  M  Q- —— K
ndzeeye kwaâme / kuna yâtuuka

I know quite well / there that I came from (where I came from)

and may occur as a sub-unit; in the next example it precedes X:

A  ii  Q- —— M  K
 tusinga bboânga / yikwa kwâandi kâka

we shall take / a few in fact only (only a few in fact)

Here M is of Class 1, 3rd person, in agreement with Class 8, which is a plural class.

Phrasing. M is invariably non-initial, phrased with the preceding item, whether as primary or sub-unit.

(2)

2.1.10. F units

The SC of the F unit head consists of independent nomino-verbals (INVs, infinitives) of Class 15:

P  A  X  F+
emwaan' / oteezele kal' ñnnungûnuka

the child / has attempted already to make progress

Primary F is a post-nucleus unit. It occurs after a very restricted number of radicals, the most common of which are -leend- 'be able', -siimb- 'begin, set to', -teez- 'try', -zaay- 'know (how to)', -zol- 'want, wish, like (to)', -yangaleei- 'be happy about' and -ya(an)wik- 'begin, start'.

1. In the context 'There are many examples, but we shall take...'

2. See Guthrie, RSS, p. 22, no. 20 and p. 28.
There are plus and minus sub-divisions of $F$, as for $Q$. The entailments of $F^+$ and $F^-$ however differ from those of $Q^+$ and $Q^-$. $F^+$ has an entailment partnership similar to, but not identical with, that of $Q^+$ in the $A : Q^+ \rightarrow P^* : A : Qs$ entailment:

\[
\begin{array}{c}
A \\
\text{oyyangaleelaang' öttuumbw' ekímpfumu}
\end{array}
\]

he is happy about being elected to the chieftainship

\[
\begin{array}{c}
P \\
\text{ótztumbw' ekímpfumu -- / yyangaleela kayyangaleelaangá ko}
\end{array}
\]

to be elected to the chieftainship -- / it is being happy about that

he is happy about it

The entailment partners of $F$ itself are $P^*$ and an object substitute,

(2)

labelled $F_s$ ; to this extent the entailment is as for $Q^+$. However, here $A$ also has two partners, $A$ and $K_a$, these being associated with the fact of the presence of the partners of $F^+$.

$F^-$ has an entailment partnership corresponding to that of $Q^-$ in the $A : Q^- \rightarrow A : K$ entailment, but again of a slightly different form, in which $F^-$ has two representatives:

1. The unlabelled item is an $R^+$ unit ; see below, under 2.1.15. This example and its entailment were given as comments upon the recent British General Election, in reference to the new Prime Minister.

2. Probably however better classified as $B_s$. See 2.1.13.
Here F- is represented, not only by A, but also by a unit labelled Fa, which repeats the radical of A. This new unit is not labelled F-, which resembles in respect of substitution class, because it does not itself take part in a further entailment of the above form. The relationship is shown diagrammatically as follows:

There is a strong preference for F- when A has a subject prefix of 1st or 2nd persons, and for F+ when the subject prefix is a 3rd person.

Neither preference amounts to an exclusion, however.

F as a sub-unit is illustrated below; it is in K, which is itself subsidiary:

Note: the Class 15 INV occurring as part of a unitary verbal group is not classified as F, as pointed out in 1.7.2, p. 54.

Phrasing. Whether primary or subsidiary, all F units are non-initial. There appears to be no 'alternative' phrasing for F-. 
2.1.11. N unit

The head of an N unit consists of a nominal with ye-/yo- 'with' attached -- but not a nomino-verbal, as in the case of the E unit, which it otherwise morphologically resembles. Primary N is post-nucleus:

\[ A \quad N \quad ii \]
\[ \text{venšanga} / \text{yokkuma yayĩngi} \]

there is / with many reasons (= there are many reasons)

\[ P \quad K \quad iA \quad N \quad L \]
\[ \text{edi kàzola} / \text{idyakkală} / \text{yoffulũ kifweene} \]

what he wanted / is of being / with a place which is sufficient

(what he wanted was to have room enough)

\[ A \quad N \quad wámonana / yoyãandi \]
\[ \text{he saw together} / \text{with him (= hemmet him)} \]

\[ A \quad N \quad K \]
\[ \text{báviingilaanga} / \text{yevánã bazeeye...} \]

they used to wait / with then that they knew... (until they knew)

The several examples are of slightly different kinds. N following the radicals -in- and -kal- 'be' has entailment partnerships not shared by N following a radical such as -monaan- 'see together' and -viingil- 'wait for'. There are also restrictions on the co-occurrence of certain sets of items of the N/SC with certain radicals, and a more delicate analysis would certainly take account of these. Nonetheless there seems to be sufficient homogeneity to allow of the general label N's being used for all.

1. The labelling is derived from Guthrie, BSS, p. 24, nos. 27-30, although the definition has been broadened to include some kinds of case not illustrated from BSS Kongo.
N is morphologically similar to the E unit, as already observed. N however occurs always after a verbal unit (which may be a nomino-verbal), but unlike E in this context, does not necessarily contain a verbal radical. Nor does it constitute an extension of the preceding unit. Further, it does not take part in a 'lexical switch' entailment, as does E.

For N occurring after the radicals -in- or -kal- 'be', there is an entailment partnership illustrated as follows:

\[
\begin{array}{c}
A & N \\
\text{wināanga / yevvũmi} & \text{he is / with respect (is respectful)} \\
\end{array}
\]

\[
\begin{array}{c}
A & K & Qn \\
vvũmi & \text{kenāanga kyāau} & \text{it is respect that he has it} \\
\end{array}
\]

N is represented by both A and Qn:

\[
\begin{array}{c}
A & N \\
A \leftarrow K & Qn \\
\end{array}
\]

Qn is a pronominal of the nominal class of the A item, and the set of pronominals at Qn is distinct from the set of Qs. The labelling shows the affinity with N. Qn pronominals are in the P/SC, i.e., may function as subject; here they have no Initial Vowel.

---

1. In my terminology, N is an expansion. See 2.1.6., fn., p. 73.
2. See more precise definition of vvũmi in Appendix I, No. 7, fn.
3. Cf. Guthrie, BSS, p. 21, last paragraph of discussion of no. 15.

I have glossed -in- followed by Q as 'have', but as 'be' when followed by any unit other than Q:

\[
\begin{array}{c}
L & Q+ \\
\text{una wināang' ēŋkuumbu} & \text{that which has the name} \\
\end{array}
\]

A \leftarrow C \leftarrow L \leftarrow X
cf. benāanga / wantu Ȭkumamaɓéni they are / people who are very gentle

-in- followed by N can sometimes be glossed as 'have', but contrasts with -in- followed by Q+:

\[
\begin{array}{c}
L & N \\
ona wināanga / yēŋkuumbu & \text{cf.} \\
\end{array}
\]

\[
\begin{array}{c}
L & Q+ \\
ona wināang' ēŋkuumbu & \text{that one who has the name (his own)} \\
\end{array}
\]

that one who has the name (he is named after someone else)
Phrasing. N is invariably phrase-initial, whether as a primary or as a subsidiary unit — a characteristic it shares with the E unit which it morphologically resembles.

(1)

2.1.11.1. Na unit

The Na unit consists of a pronominal stem with ye- attached, unlike N, whose head consists of a complete nominal with the pre-prefix ye-.

It differs in several other respects also from N. N may include more than one item, whether as part of a unitary group, or by inclusion of sub-units, while Na never contains more than the head. Na after -in- and -kal- 'be' does not take part in the A : K :Q entailment which applies to N. Both units however share the characteristic of occurrence after a verbal nucleus. N and Na are sometimes contrastive:

\[ A \quad N \]
\[ wámonaana / yoyándi \quad he saw together / with her \]

\[ A \quad Na \]
\[ cf. wámonaana yaándi \quad he saw together with her (met her by chance) \]

\[ A \quad N \]
\[ wayénda / yoyándi \quad he went / with her (she took him) \]

\[ A \quad Na \]
\[ cf. wayénda yaándi \quad he went with her (he took her) \]

The persons of A and N/Na are differentiated by sex in the English glosses for clarity's sake, though the Zombo makes no such distinction.

Phrasing. Na is non-initial, whether primary or subsidiary.

2.1.12. J unit

The unit labelled J is traditionally termed the 'adjunct'.

Again the entailments of structures including J are useful in establishing the unit and showing its relationships. Below is exemplified the passive entailment of a \( P : A : Q^+ \) sentence:

\[
\begin{align*}
\text{enndezi / wasǔkul' emwāana} & \quad \text{the nurse / washed the child} \\
\text{emwāana / wasǔkulwa / kwanndezi\textscript{ī}} & \quad \text{the child / was washed / by the nurse}
\end{align*}
\]

\( P \) is represented by the unit labelled J. The SC of the J head consists of nominals with kwa- attached. The English glosses vary, but in this particular example, kwanndezi\textscript{ī} is glossed as 'by the nurse'.

J may follow or precede the nucleus and is found with a restricted number of nucleus types: radicals with passive extension -w-, as in the example above, and those with reciprocal extension -(a)an-, illustrated below:

\[
\begin{align*}
\text{dyatoma zzāyakanā / kwawaantu awōonsō mphe} \\
\text{it was well known / by all people as well}
\end{align*}
\]

In association with a copula nucleus, J is glossed as 'to...' or 'for...':

\[
\begin{align*}
\text{kwāŋgudi / eyooyō / inthaangw' akyēse} \\
\text{to (or, for) the mother / this / is a time of joy}
\end{align*}
\]

\[
\begin{align*}
\text{dyakala dyantsīsi / kwayāandi} \\
\text{it was (a source) of terror / to him (or, for him)}
\end{align*}
\]
Pre-nucleus J precedes P, if present. J may be extended by means of E:

\[
\begin{array}{c}
\text{J} \quad \text{E} \quad \text{P} \quad \text{iA} \quad \text{ii} \quad \text{K} \\
\text{kwāse} / yōngudi / ekyyokýɔ / illumbu kyakysese beéni
\end{array}
\]

to the father / and mother / this / is the day of joy very (indeed joyful)

Repetition of kwa- in E appears to be optional. In the example above, kwa- is not repeated, but in the next it is:

\[
\begin{array}{c}
\text{J} \quad \text{ii} \quad \text{E} \quad \text{ii} \\
\text{kwāyitu yāandi} / yokwayakalɔ dyandi
\end{array}
\]

by her relatives / and by her husband

(1)

Phrasing. J is invariably phrase-initial.

2.1.13. B unit

In the following section of a sentence, the nucleus is followed by an item labelled B, which in turn is followed by Q+:

\[
\begin{array}{c}
\text{P} \quad \text{A} \quad \text{B} \quad \text{Q+} \\
\text{oammbuta} / bāvaaang' ođleéke eláu
\end{array}
\]

the elders / used to give the young people the chance

(2)

B may be termed the 'indirect object'. The B/SC is similar to that

1. There is a morphological similarity between J and M, in that the M/SC consists of kwa- attached to a pronominal stem (not a full nominal). There does not however appear to be a connection between the two units, such as that existing between N and Na, which similarly resemble each other.

2. This kind of unit is not dealt with in BSS, where the term 'indirect object' is applied to the S unit. See Guthrie, BSS, p. 28, and below, under 2.1.16., p. 102, et seq.
of Q+, in that the head consists of nominals with Initial Vowel (IV), but there are several reasons why it cannot be classified as Q+. In the first place, it may itself be followed by Q+ or Q-:

\[
P \ A \ B \ Q^- \ ii
\]
\[
\text{oammbuta / bāvaanaang' oāleēke / lau dyāmphweena}
\]

the elders / used to give the young people / a valuable opportunity

Secondly, B only occurs when Q is present (including Qs), whereas Q may occur as the only post-nucleus primary unit:

\[
P \ A \ Q^+
\]
\[
\text{oammbuta / bāvaanaang' onsswá the elders / used to give the permission}
\]

Thirdly, B is in complementary distribution with J occurring after Q:

\[
P \ A \ Q^+ \ J
\]
\[
\text{oammbuta / bāvaanaang' elau / kwalezaēke}
\]

the elders / would give the chance / to the young people

\[
A \ Qs \ J
\]
\[
\text{wavaana kyō / kwamwāana she gave it / to the child}
\]

There are no sub-divisions of B; there is, for instance, no 'minus' unit. The distribution of B and J however parallels that of Q+/Q-, in that B may be represented by object substitutes:

\[
A(\text{with Bs}) \ Q^+
\]
\[
\text{babāvaanaang' elau they used to give them the chance}
\]

There are two passive entailments of the structure (P) : A : B : Q+; in the one, P represents B, and in the other, P represents Q+:

(i) \[
P \ A \ B \ Q^+
\]
\[
\text{bāvaan' oāleēke onsswá they gave the young people the permission}
\]
\[
P \ A w \ Q^+
\]
\[
\text{oāleēke / bāview' onsswá the young people / were given the permission}
\]
In this case, B is represented by J. The two diagrams compared:

If P is also represented in the second entailment, there are two J units, one representing P and the other B:

J1 represents B, and J2 represents P; this order appears to be fixed.

Note also that J1, representing B, is glossed as 'to...', while J2 representing P is glossed as 'by...'.

Both B and Q+ may be represented by object substitutes, and both may be so represented in one sentence:

A Qs Aii(with Bs)
yadi wo kūvvaāna I would have given it to you
(lit. I would have it you give)

This seems to be limited to Bs which is an infix, i.e., representing persons of Classes 1 and 2. Two substitutes may not occur, unless one is an infix, with the same verbal.
**Q-** in association with **B** may not be represented by a substitute, but may participate in the **A : Lw** entailment of **A : Q-**.

\[
\begin{array}{c}
\text{bāvaanaang' ōnleēke / malongi mayingga} \\
\text{they used to give the young man / many lessons} \\
\text{malongi mayingga mávewaanga / kwanleēke} \\
\text{it is many lessons that were given / to the young man}
\end{array}
\]

and here again, **B** is represented by **J**.

**Q-** with **B** may also participate in the **A : Kw** entailment of **A : Q-**.

\[
\begin{array}{c}
bāveen(e) éngudi ɪlëkwa \\
\text{they have given the mother something} \\
\text{engudi / ɪlëkwa kaveeno} \\
\text{the mother / it is something she has been given}
\end{array}
\]

**B** is here represented by **P***, which controls the agreement of **Kw**.

The radicals capable of taking **B** are limited. Apart from a very few simplex radicals such as -vaan- 'give' and -soon- 'tell, show', they are radicals with the prepositional (or 'applied') -IL- or causative -IS- extensions.

1. The capitals are a generalized symbolization of the extensions, which have a variety of realizations, e.g. -IL- appears as -il-, -el-, -in-, -en- and others.
Phrasing. B is non-initial. Its presence makes no difference to
the phrasing of Q+ and Q-, which are phrased according to the descri-
ption already given under 2.1.7. J, the entailment partner of B,
is always phrase-initial, as shown under 2.1.12.

(1)

2.1.14. Y unit

Y never occurs as a primary unit, only as a sub-unit within L.
The Y/SC consists of nominals and pronominals, with or without IV,
apparently in free variation. There do not seem to be sufficient
grounds for distinguishing a plus and a minus division. Y follows
the L verbal and is sometimes called the 'logical subject' of the
'inverted' or 'illogical' relative.

A ii Q+ ii L Y ii
osinga sśol' ēmweelo / una uzziNGilaang 'ēnthumwa zántsi...
you will find the door / that one which lives the emissaries of the country...
(where the emissaries of the country live)
The Y head here has Initial Vowel: (e)n-thumwa 'emissaries'.

N ii L ii Y X
yeppulū / yina yifwēte kkōsokā / ammbuta kāka (cf. oammbuta elders)
with a place / that which should sit / elders only
(where elders only should sit)

From its position and SC, Y appears to resemble Q (as sub-unit in L),
but in fact is distinguished from it in two ways. Firstly, the presence/
absence of IV is a free variation, and there are no associated entailments
of the kind found for Q+ and Q-, and which serve to distinguish them.
Y cannot, for example, be represented by an object substitute, as can Q+.

1. See Guthrie, BSS, p. 24, no. 26, and p. 27. For Zombo, however, it
seems best to regard the P/SC as not containing co-referents. There
also appear to be some restrictions on the length of a Y unit in terms
of the number of sub-units it may contain. All examples in the data are
limited to a nominal group or to the Y head followed by X.
Secondly, Y participates in an entailment in which it is partnered by J:

\[
\begin{array}{c}
P \quad L \quad Y \quad J \\
\text{enloongo my\text{\'}asadilaang' ákulu éto}
\end{array}
\]

the remedies which used to use our ancestors (which they used to use)

\[
\begin{array}{c}
P \quad Lw \quad J \\
\text{enloongo my\text{\'}asadilaanga / kwakulu éto}
\end{array}
\]

the remedies which were used by our ancestors

\[
\begin{array}{c}
P \quad Lw \\
\downarrow \\
Y \\
\downarrow \\
P \quad Lw \quad J
\end{array}
\]

Q is never partnered by J. Y resembles B in having J as a partner, but B only partners J in the entailment \( A : B : Q^+ \longrightarrow P : Aw : J \), as shown above under 2.1.13. Finally, both B and Q may occur as primary units, while Y is always a sub-unit, related to L.

**Phrasing.** Y as a single-item unit is always non-initial, whether with or without IV. Some cases of Y without IV, when the unit contains more than one item, are however phrase-initial. There is an apparent phrasing alternation, reminiscent of those found for minus units and others with a similar SC, i.e., those consisting of nominals without IV. Y with head consisting of a nominal with IV is always non-initial, whether the unit contains one item, or more than one.

As previously pointed out, there appear to be no grounds for distinguishing plus and minus sub-divisions in Y, despite this partial correlation of morphology and phrasing.
2.1.15. **R units**

In the following examples, Q is followed by a unit labelled R:

- A Q+ R- 
  wāwā’ éppaaum émffunu he possessed the spade the need (needed the spade)

- A Q- ii R+ 
  wawwa mabayā mànnene émffunu he possessed large planks the need 
  (had need of some large planks)

- A Qs R+ 
  wakaanga yō ekōulu he bandaged it the leg (bandaged up its leg)

R differs from other kinds of object in two ways. If Q is present, R always follows Q, and R cannot be represented by an object substitute. It is termed by Guthrie the 'fixed object'.

There are plus and minus divisions of R; R+ has been illustrated in the foregoing examples. R- usually appears in association with a passive at A:

\[
P \quad \text{ii} \quad A \quad R- \quad X \quad X \\
\text{oasaansi akylakázi / băwwaanga / mffunu beēni kīkīlu}
\]

the nursing attendants / were possessed / need greatly indeed 
  (they were sorely needed)

The SC of the R head consists of nominals, with IV (R+) or without IV (R-).

---

1. The label R and the term 'fixed object' are derived from Guthrie; see **BSS**, pp. 17-18, nos. 3 and 4. The examples on p. 21, no. 17 and p. 23, no. 23 are not, however, comparable, since the Zombo equivalent of the BSS R unit in these cases is a nucleus. Similarly the remarks on the distribution of Qa and R are not applicable in Zombo (see e.g. **BSS**, p. 28 and notes on nos. 21 and 23). As in all cases of Zombo units having plus and minus divisions, there is no equivalent in BSS Kongo of the R+/R- distinction.
R may also occur without Q. This appears to be restricted to co-occurrence with radicals having the passive \(-W\)- or neuter \(-IK\)-
(1) extensions, and contoured radicals having termination \(-k\)- and
similar meaning to neuters:

\[
\begin{array}{cccc}
A & F+ & R+ \\
\text{ooyangäleelaang' êttuumbw' ekimpfunu} & (-tuumbw- be elected)
\end{array}
\]

he is happy about being elected (to) the chieftainship (= premiership)

\[
\begin{array}{cccc}
A & R+ \\
yätolok' ekulu & (-tolok- get broken)
\end{array}
\]

one house / could come from (= produce) cassava porridge

There are different entailment partnerships for the R+ and R-
divisions. R+ participates in only one passive entailment, in which Q+
is partnered by P:

\[
\begin{array}{cccc}
A & Q+ & R+ \\
wäww' eppaaú emffunu & (-emffunu- the spade)
\end{array}
\]

\[
\begin{array}{cccc}
A & Q+ & R+ \\
wäww' eppaaú emffunu & (-emffunu- the spade)
\end{array}
\]

P A w+ R+

'ëppaaú / wäww' emffunu the spade / was possessed the need

R+ cannot in fact be said to have any entailment partners; it can be
'partnered' only by itself. This emphasizes the applicability of the
term 'fixed object'.

R- on the contrary may participate in an A : K entailment, similar
to that found for A : Q-. As previously noted, R- apparently only
occurs in conjunction with a limited set of radicals, none of which may
have a passive extension added, and some of which are passives in the
first instance. In contrast to the Q- unit, therefore,

1. Contoured radicals are those having a similarity of shape and a
common element of meaning, but which cannot be analyzed into simplex
radical + extension. See Richardson, *The Role of Tone in Sukuma*,
p. 30, fn.
R cannot be said to participate in a **passive** entailment of this kind.

Both verbals in the examples are passive:

\[
\begin{align*}
P & \quad [A \quad R-] \\
& \quad \text{olusad\textsuperscript{ysu} / luv\textsuperscript{wili}u m\textsuperscript{f\textsuperscript{f\textsuperscript{n}\textsuperscript{u}}}u \quad \text{help} / \text{has been possessed need} (\text{is needed})} \\
& \quad \downarrow \\
P^* & \quad [R-] \\
& \quad Kw \\
& \quad \text{olusad\textsuperscript{ysu} / m\textsuperscript{f\textsuperscript{f\textsuperscript{n}\textsuperscript{u}}}u luv\textsuperscript{wili}u \quad \text{help} / \text{it is need that it has been possessed} \\
& \quad \downarrow \\
P & \quad [A \quad R-] \\
& \quad \text{or} \\
& \quad \downarrow \\
P^* & \quad [R-] \\
& \quad K \\
\end{align*}
\]

The R/SC contains a very small number of nominals (but no pronominals), all limited to co-occurrence with particular radicals, e.g. names of parts of the body co-occurring with -ka\textsuperscript{ang}-'bind, bandage up' and -tolo\textsuperscript{k}-'get broken'; (e)mff\textsuperscript{nu} 'need' co-occurring with -v\textsuperscript{w}-'possess' and -v\textsuperscript{uw}-'be possessed'.

There are sub-divisions here, in that some nominals only stand as R when Q is filled by another nominal, e.g.

\[
\begin{align*}
& \quad [A \quad Q+] \\
& \quad \text{waka\textsuperscript{anga} eku\textsuperscript{ulu} \quad \text{he bandaged up \textbf{the leg}}}
\end{align*}
\]

\[
\begin{align*}
& \quad [A \quad Q_\text{s} \quad R+] \\
& \quad \text{but \quad waka\textsuperscript{anga} y\textsuperscript{o} eku\textsuperscript{ulu} \quad \text{he bandaged it up \textbf{the leg}}}
\end{align*}
\]

When no other kind of object is present, eku\textsuperscript{ulu} in co-occurrence with -ka\textsuperscript{ang}fills the Q slot. In co-occurrence with -tolo\textsuperscript{k}- however it fills R without Q, as shown on the previous page.

I have not found it useful to incorporate such distinctions into the labelling.

---

1. Guthrie's examples no. 3 (p. 17) and no. 4 (p. 18) are of this kind, i.e., R without Q.
R may occur as a sub-unit:

\[ \text{seýāndi ovwiilu ēmffunu} \]

...it is after all she who is possessed the need

(she is needed after all)

\[ \text{bavaangilwa mawwono / mena bāwaang ēmffunu} \]

...they may have done for them everything / that (of) which they possessed the need

Phrasing. The phrasing of R is similar to that of Q.

R+ is always non-initial.

R- when consisting of a single item is also phrased with the preceding item, but R- consisting of a unitary group is sometimes phrase-initial, and sometimes non-initial, cf. the Q+/Q- behaviour.

2.1.16. S units

The S (locative) head consists of:

i) nominals with extra independent prefix (EIP) of Classes 16-18 attached:

\[ \text{ovaaffulu} \]

...at the place (ova- Class 16 EIP attached to Class 7 IN)

ii) pronominals of Classes 16-18:

\[ \text{...kuúna} \]

...there (Class 17)

\[ \text{...vāvāna} \]

...at that particular spot (Class 16)

\[ \text{...emwāamú} \]

...in here (Class 18)

1. See Guthrie, BSS, p. 18, nos. 6-7; p. 20, nos. 13-14; p. 21, no. 17, and p. 28. I have not however used the term 'indirect object' for the S unit in Zombo (see fn. 2, p. 93), but for the B unit. Further, the elements vana, kuna and muna are classified as separate pronominal items. See below, 3.2.4., for pronominal series (pp. 156-161).

2. The pronominals quoted are from Series 3, 8 and 7 respectively.
A pronominal may head an appositional group:

\[
\begin{array}{l}
S- \quad \text{bāvutuka / munā vata} \\
S+ \quad \text{they returned / \textit{in there the village}} \\
\end{array}
\]

(they went back to the village)

S may precede or follow the nucleus as a primary unit, and more than one S unit may be present in the same sentence, both primary units:

\[
S+ \quad A \quad S- \quad \text{ovaffulu ekyākina, / zekoka / kuna kōoko kwalûnene} \\
\text{at that place, / turn / to there the hand of rightness (to the right)}
\]

There are plus and minus sub-divisions in both pre- and post-nucleus S; the distinction is most easily demonstrated for the post-nucleus units. S+ may be represented by an object substitute, while S- may not:

\[
\begin{array}{l}
S+ \quad \text{win' omūndzo he is in the house} \\
S- \quad \text{wina mō} \quad \text{he is inside} \\
cf. \quad \text{wina mo he is inside}
\end{array}
\]

S- participates in an entailment of the form \( A : S \rightarrow A : K \), while S+ does not:

\[
\begin{array}{l}
A \quad S- \quad \text{wina mūndzo he is in the house} \\
S- \quad K \quad \text{munūndzo kena it is in the house that he is}
\end{array}
\]

The entailments of pre-nucleus S units consist in each case of a switching of the position of the unit from before to after the nucleus, e.g.

\[
\begin{array}{l}
S- \quad \text{vaffulu ekyākί, / osinga bbāk' ekûmbi at this place, / you will catch the} \\
S- \quad Q+ \quad \text{bus} \\
A \quad \text{you will catch the bus at this place}
\end{array}
\]

1. There is no means of glossing S+ and S- in such a way as to bring out the difference in English. S+ has to some extent a 'nearer and involved' connotation, and S- a 'farther away and detached' connotation.
S as a sub-unit occurs only after the unit to which it is related:

\[ \text{K} \quad \text{Q+} \quad \text{ii} \quad \text{iii} \quad \text{S+} \quad \text{ii} \]

...nyi\text{ndulaang}' edya\text{mbu dyangutukîli amundzô eyádyi}

...that I am considering the question of the birth of a man into this world

It does not, therefore, take part in the 'switched position' entailment as a sub-unit.

Pre-nucleus S precedes P:

\[ \text{S-} \quad \text{ii} \quad \text{iii} \quad \text{iv} \quad \text{P} \quad \text{A} \]

kumbaninu yalulongôko lwândi lôlo, / enlleôke / wâsungulwaanga

at the end of this his apprenticeship, / the young man / would be presented

Phrasing. Pre-nucleus S+ and S- are phrase-initial.

Post-nucleus S+ is non-initial.

Post-nucleus S- shows the apparent phrasing alternation recorded for Q-, C and R-, which share with S- the absence of IV from the head item: a single-item S- unit is non-initial, but one consisting of more than one item may be either initial or non-initial.

It should be repeated that members of any SC, filling a slot other than that of their original unit label, will follow the phrasing of the slot they fill. For instance, members of the S- / SC functioning as a nucleus will follow nucleus phrasing, and be phrase-initial:

\[ \text{P*} \quad \text{L} \quad \text{|S-|} \quad \text{K} \]

ezi zikkoôkolaanga -- / kumaaki zittûkaâanga

these (creatures) which crow -- / it is from eggs that they come

S sub-units follow S primary phrasing in all respects, save that there is no parallel among them to the pre-nucleus primary S units.
The V unit head consists of:

i) a nominal, which if an independent nominal (IN) may have attached an extra independent prefix (EIP) of one of the locative classes, 16-18:

...éwūnū today (IN of Class 7)
ezaak' Ḳunthaangwa some times (IN and IN of Class 10)
ttuuk' Ḳunthaangwa to come from the time, since the time (INV of Class 15, followed by F+ unit consisting of a Class 9 IN)
mullumbu yēyôyo in those days (chain group: Class 8 IN with EIP of Class 18 attached + pronominal in agreement with Class 8)

ii) a pronominal of Class 14, or one of Classes 16-18:

ewaau now, thus (Class 14)
...wuūna thus, in that way (Class 14)
vaava then, now, at the time (Class 16)
muna māsika in there evening, in the evening (Class 18 pronominal + Class 6 IN forming appositional group)

Independent nominals of the V/SC are a restricted set, referring to time; pronominals are also restricted, as shown above, and refer to time or manner.

V as a primary unit may precede or follow the nucleus. There is some similarity between the S and V units, inasmuch as the SC of each contains items common to both, and some of the entailments are similar. Occurrence in pre- and post-nucleus position is another common factor.

V+ A ii
ewaaũ / isinga vůvůva now / I'm going to say...
A X V+
dyassivi kīkilu éwūnū it is (a matter) of wonder indeed today

1. Based on the V unit of Guthrie; see BSS, p. 19, nos. 10-11; p. 21, no. 18 and p. 28, summary definition. The definition of the V unit has been widened to include pronominals not referring to time.
Both pre- and post-nucleus V have plus and minus sub-divisions, distinguished as usual by the presence/absence of Initial Vowel. V+ cannot be represented by an object substitute; in this respect it is unlike S+, but resembles R+. It is however distinct from R+, in that its position is not fixed with regard to Q if present. R+ may only follow Q+, but V+ may either follow or precede:

A Q+ V+ ii
tumyatik′ essalu omusa na ama we shall begin the work this afternoon
A V+ Q+
mutadi ewu eyimphunampfwni look now at the pictures

Post-nucleus V- participates in an A : K entailment, while V+ does not:

A V- ii ii
wásala / lumingu lwamviimba lwákaka

he worked / a whole week more

[V-] ii iii K
lumingu lwamviimba lwákaka kásala

it is a whole week more that he worked

Both pre- and post-nucleus V, of both divisions, take part in an entailment which involves switching the position of the unit. This is shown below for pre-nucleus V-:

V- ii A
nkumbu myayíngi / báeezaanga many times / they used to try

A V- ii
báeezaanga / nkkumbu myayíngi they used to try / many times

1. Compare [V-] ii K
nkumbu myayíngi báeezaanga (no phrase boundary)

it is many times that they used to try

which is the A : K entailment of post-nucleus V-.
Pre-nucleus V may precede or follow P:

V- ii iii iv P A
muna ttaangtu kyaakulu eeto, / ekyalakazi / kyaanswaanga

in there the era of our ancestors, / the nursing period / was looked after

during the era of our ancestors...

P V- K ii A
eyinndende / vaava yimene kkayazyaana /.../ bantuumbaanga...

the children / then that they have done sorting themselves /.../ used
to elect...(when they had sorted...)

**Phrasing.** Primary pre-nucleus V, whether of the plus or minus
sub-divisions, is phrase-initial.

Post-nucleus V+ is non-initial.

Post-nucleus V- shows apparent phrasing alternation. If it
consists of a single item only, it is non-initial; if it contains more
than one item, it is sometimes non-initial, and sometimes phrase-initial.

V- thus joins the company of units with apparent phrasing alternation:
C, Q-, R-, S- and Y.

---

1. **kyalakazi** denotes both the period during which a mother nursed her
child, and the hut where she lived for the whole of the nursing period.

-saansw- lit. 'be looked after, brought up', with the extended meaning
'last over a period of time' (the derivative lu-saansu means 'history',
esp. 'life-story'). The translation here could therefore/be either
also
'the nursing period lasted' or 'the nursing hut was looked after'.

1
2.1.18. **T unit**

The T unit to some extent resembles S, in that the SC of the T head consists of independent nominals with the Class 18 prefixi mu-attached, and the Class 18 pronominal muna 'in there' heading an appositional group. One respect in which T differs from S is in the lack of a plus/minus division. The Initial Vowel never appears, therefore the morphological similarity is to S- rather than to S+.

There is no representation by object substitute, which contributes to the similarity to S-. It will be seen that the English glosses for T are several: 'in (doing), in order (to do), by means of, because of, with, for, from, out of'.

```
A  ii  X  T  Q+  ii
bafwete zziizila káka mulluóngis' engóonde zóózo
```

they just have to be patient in fulfilling these months

```
A  E  Qs  T  ii
wásaanzula / yellaambula wó múppaa mu kyándi
```

he widened / and deepened it with his spade

---

1. Based on the T unit of Guthrie, especially **BSS**, p. 18, no. 7; p. 19, no. 11; and p. 22, no. 20. Nos. 19 and 24 on p. 23 are not comparable; the Zombo equivalent of the T unit there is a nucleus. The T/SC has also been widened to include nominals which are not INVs of Class 15 (infinitives). Since negative structures are excluded from the present work, the criterion used by Guthrie for distinguishing between T and S (p. 19, nos. 8-9) cannot be used. In any case, it does not apply in Zombo; the ordering of units in a negative structure is not so rigid as in BSS Kongo.
I have thanked / in there the help / that which you have given me

(I thank(you) for the help you have given me)

they used to make remedies / in there shrubs (from shrubs, out of shrubs)

T may stand as a primary unit before as well as after the nucleus and precedes P if present:

\[
\text{muna dyándi ozeévo -- / wabong' ónkkele}
\]

in there this therefore -- / he took the gun

(because of this therefore)

\[
\text{muná vva' edyóódýo, / onlleške / waýndíanga}
\]

in there to do this, / the young man / used to go (in order to do this)

T may occur when S is also present, and in this case follows S:

\[
\text{bakutakyanaangá mphe / muna nttaanda myamávata / muna ssákā' entsáka}
\]

they used to gather also / in (there) open spaces of the villages / in there to play games (in order to play games)

There is however one kind of unit which is fixed as to position in regard to the nucleus, occurring only after the latter; the nucleus in this case is a Class 5 possessive prefix attached to a nominal:

\[
\text{dyámfunu mússungamená vo} \text{ it is of necessity in remembering(=to remember)}
\]

that
Unlike $S_-$, members of the T/SC may take a stabilizing pre-prefix:

$$P \quad K \quad Qs_+ \quad F \quad Q^- \quad ii$$

The reason he wanted to dig (into) it / is to obtain / a big cave

The iA item here consists of i- attached to mubbaka 'in obtaining, in order to obtain'. Such a structure seems to be limited to co-occurrence with P, and furthermore, with certain items only at P. The type of unit symbolized by iA, it may be remembered, was found as an entailment for plus units such as Q+ and S+, but not for minus units such as Q- and S-.

On the other hand, members of the T/SC may function as A without stabilizing pre-prefix. This appears to be limited to T in association with a verbal copula nucleus:

1. A copula nucleus is one consisting of a verbal containing one of the radicals -in- or -kal- 'be', or a stable or stabilized nominal.

2. There are peculiarities in this structure, such that it might be preferable to separate post-copula T and place it in a special sub-division, in a fuller analysis. For instance, Q+ follows K, but Qs precedes it:

$$\quad T \quad K \quad Q+$$

muddya bën' ŋumbizi it is in eating that they are the meat

$$\quad T \quad Qs \quad K$$

but muddya yë bënă it is in eating it that they are

It has not proved worthwhile to establish sub-divisions for the present purpose; differences of this kind are not reflected in any way as regards phrasing of the T unit.
Phrasing. Primary T in pre-nucleus position is always phrase-initial.

Post-nucleus T consisting of a single item is non-initial, but if it consists of more than one item, there appears to be alternative phrasing -- sometimes the head is phrase-initial, and sometimes it is non-initial.

The phrasing of T thus resembles that of minus units and others with which it shares the morphological characteristic of absence of Initial Vowel from members of its substitution class. On the other hand, the affinities of T are not entirely with minus units; some entailments in which it takes part resemble those associated with plus units.

2.1.19. H unit

The label H is given to a unit whose head consists of a Class 15 INV (independent nomino-verbal), with Initial Vowel attached. The H/SC therefore contains items found also in the F+/SC, but the set is more restricted. An example is:

H S- IA II

\[\text{evvutukâ kûvitu, / inkkw'akûmbvumina}\]

to return to the door; / it is the possessor of milk

(when I went back to the door, I found it was the milkman)

H is supported by the nucleus, in that it cannot occur unless the nucleus is present, but H plays no part in the structure following. In this it resembles P*, but whereas P* can be linked by agreement

1. The label H is taken from Guthrie, BSS, p. 29, but has not quite the same meaning here. P* in BSS is classed as an H unit; here I have used the definition of H as given by Guthrie, but the SC is more restricted and does not include P*. 
with some part of the following structure, H never is. It is also
noticeable that all recorded instances of H contain a sub-unit,
either S or Q. Further, H appears as a primary unit only in the data,
and it would seem that it does not occur as a sub-unit.

H precedes P, if the latter is present:

H    Q+    P    A    F    Q+  ii
ellaandil' edyöödyo, / Ntsaukulüs u / wazola vvoönges' endzo áandi
to follow this, / Crusoe / wanted to enlarge his house
(after this, following this)

H occurs only in pre-nucleus position.

Phrasing. H is phrase-initial, and in fact all recorded instances are
also sentence-initial.

2.1.20. G units

Units labelled G contain, and sometimes consist entirely of,
what is here termed an embedded sentence. An embedded sentence
displays all the characteristics of a complete sentence, particularly
the major one of containing a 'nucleus'; in the context of G, however,
the embedded nucleus does not constitute a unit capable of forming a
complete sentence. To indicate that units within G are of a different
status from those of the main sentence in which they occur, the G
structure is placed in brackets:

(G: A  Q-) A
avö / wamona meengä,/ mooyö if / you should see blood, / it is life

1. Guthrie, BSS, p. 22, no. 20, uses the term 'holophrase' for this
kind of structure. This is not adopted here, to avoid confusion with
the special meaning given to 'phrase' in the present study.
The SC of the G head consists of

(i) a restricted set of particles, distinct from those of the X/SC, e.g. (1)

avo if nkhet before se it is now/then
vo that kana before, whether nga it is possible

(ii) items capable of functioning as nucleus in the context of G, e.g.

ntsuumba that I may buy sesuku it is now a room

Many G heads may function simultaneously as head of a primary slot other than G, such as Q, C, or even A:

A Q(G: A R+)
wāmona vó — / yātolok' ekūulu he saw that — / it was broken the leg
vo here functions as Q in relation to A, and simultaneously as G head.
A C(G: iA ii iii ) wākituka / sesuku dyāandi dyāndēēka

it (cave) became / it is now his room for acts of sleeping
(the cave now became his bedroom)

sesuku here functions as C, as well as G head, which is furthermore
iA in the G context.

A(G: A )
še / kalwaaka it is then / he may arrive (he will then arrive)
še functions as A, as well as G head.

1. The G head se (particle) is distinct from the pre-prefix se-, although the English glosses are similar in some cases, and both occur in the A slot. se- (prefix) is however limited to iA. Compare:

A(G: A )
še / kalwaaka (Tense 8) sekālwaaka (Tense 1, K verbal)
it is then / he may arrive it is then that he will arrive

Both can be rendered as 'then he will arrive'. For tense numeration see Appendix VII. Compare also: sekālwaaka (Tense 2, K verbal)

it is then that he arrived
There are sub-divisions within the G/SC, in that some members are capable of filling any of A, C or Q, others are limited to Q, and others to A. Others again function only as G, e.g. avō 'if'. There are also restrictions on co-occurrence; nē 'as, like' is invariably followed by a stabilized 'nucleus':

\[(G: \ y y ) \ E\ (G: A)\]

as / it is how used to say always / our forebears
(as our ancestors always used to say)

Alone of the set, the G head vo 'that' may have yo- attached, and thus form part of an E unit:

\[iA \ A \ E\ (G: A)\]

it is the maternal uncle / and that (= or) / it is some other relation

It has not proved useful to reflect these sub-divisions in the labelling. Simultaneous function is indicated as above, by placing the non-G label immediately before G.

The position of G depends upon whether or not it is functioning solely as G. If it fills no other slot, its position is not fixed in relation to the nucleus, it may follow or precede; further, if P is present, it may either follow or precede P: (1)

\[P \ y y \ (G: y k )\ A\]

the child of the chief of man, / if / it is now that he will eat, / must be
(if a well brought up child is about to eat, he must be)

G here follows P and precedes the nucleus. In the next example, G precedes P:

\[(G: P) \ A\]

if / this / has happened, / the mother / was cordially hated...

---

1. It is accidental that, in the examples, P preceding G controls the agreement of the G nucleus, and following it does not.
G following the nucleus:

A \quad R^+ \quad (G: iA \quad L \quad Q(G:A) )

they used to get angry... / if / it is now the child who has been permitted /

he may cry

(if the baby was then permitted to cry)

(G here contains a G sub-unit.)

G functioning simultaneously as C or Q follows the nucleus:

A \quad C(G: iA \quad iI )

wākalaanga vō / ingudi ënkhazi he was that / he is the maternal uncle

A \quad Q(G: A \quad R^+ )

wāmona vō -- / yātolok' ekūulu he saw that / it was broken the leg

G functioning as A cannot, of course, be defined as to position in this way:

It may have been noticed that G is described as filling Q, without

subsidary labelling. G as Q displays some affinities with Q+, in that

it may be represented by an object substitute, of Class 5:

A \quad Qs

wamona dyō he saw it (= the fact that it had broken its leg)

G as Q may also participate in an entailment similar to the A : Q+ -->

P : iA described under 2.1.4., iA being [iK]:

A \quad Q(G:A \quad Q- )

ozōolele / ntsuumba fīseko she wants / I may buy a little flour

P(G: [Q- \quad K ] \quad [iK] )

E (she wants me to buy...)

fīseko ntsuumba / ëkazolele it is a little flour that I may buy / is what she wants

(There is a secondary entailment here, in that A : Q- within G is

represented by [Q- : K. This gives the labelling a complex appearance.)

It may be added that Zombo displays a marked partiality for strictae

structures of the kind where G contains a sub-unit G, in turn containing

(1)

a G sub-unit.

1. See No. 3 in Appendix I.
Phrasing. G units are particularly interesting in respect of their phrasing.

The internal phrasing of an embedded sentence is precisely as for a corresponding non-embedded sentence:

\[ E \quad Q(G : P^* \quad ii \quad A \quad K \quad ii ) \]

yozzaayā kana / onseedyα ndyōγοyο / nāni kafwēte llūlůwə?

and to know whether / this baby / it is who that he should be named after?

(And to know after whom the baby should be named)

The G unit, from P* onwards, (i.e., not including the head kana) could form a non-embedded sentence, and its phrasing would then be identical.

(P*) and P*, and (A) and A, are phrase-initial; (K) and K are non-initial.

The G head may show variation in phrasing, but the distribution of phrase-initial and non-initial G heads is quite clear.

A G head which is purely G is phrase-initial, e.g. avō and nē.

A G head functioning simultaneously as A is also phrase-initial, e.g. sē and ngō.

Most interesting is the phrasing of G heads simultaneously filling Q or C. Compare the following:

\[ A \quad Q(G : A \quad R^+ ) \]

wāməna vō — / yātə̆lok' ekulul he saw that — / it was broken the leg

\[ A \quad Q(G ; A \quad Q^+ ) \]

structure yambula / twaifimp' emphangaméno permit / (that) we may examine the

The G head vo, filling Q in relation to the nucleus of the main sentence, is non-initial; the G head twaifimp(a), likewise filling Q, but also serving as nucleus within G, is phrase-initial, i.e., phrased as a nucleus. As previously stated, A within G is phrased as a nucleus; here however we have a conflict of requirements. Q, and particularly Q+, with which Q(G) displays most affinities, does not require phrase-initial position; Q+ indeed requires non-initial position; a nucleus on the other hand requires phrase-initial position, and it is this aspect which is given phrasing exponence. The position can be stated in terms of a requirement of the
internal relationships of the G unit head, which over-rides the phrasing characteristic of the slot it fills in relation to the nucleus of the main sentence. Compare also:

A C(G: iA ii )
\[\text{wákalaanga vó / ingudi ānkhazi }\]
he was that / he is the maternal uncle

A C(G: iA ii iii)
\[\text{wákituka / sesuku dyándi dyánděska }\]
it became / it is now his bedroom

The G head vo filling C is phrased with the preceding item; the G head sesuku, likewise filling C, but also functioning as nucleus of the G unit, is phrased as a nucleus. Again, the distribution is clear; G filling C is non-initial, unless it also fills A within G, and then it is phrased as a nucleus.

The examination of G has thus revealed a new factor in phrasing. It would appear that phrasing may be a marker, not simply of the syntactic unit as defined in relation to the nucleus, and to other primary units, but also of a different kind of relationship -- that of the head of the unit to other components within the unit. It would further appear that, where phrasing requirements conflict, that of the internal relationship may over-ride that of the 'external' relationships.

2.2. Sentences containing more than one nucleus

These structures cannot be approached in the same way as the single-nucleus sentences. Up to now, units have been defined using the nucleus as datum point. In the next kind of structure to be examined, the nucleus, together with its attendant constellation of primary units, becomes a single unit in a higher order.
2.2.1. Alpha and Beta units

The whole of a structure consisting of a nucleus and the primary units defined in relation to it is now called a nucleus group, and labelled with Greek Alpha:

\[
\text{\textalpha} \quad \text{\textalpha} \quad \text{\textbeta} \quad \text{\textalpha} \\
\text{meenga} / \text{imeevvaanaang} / \text{\textchanda} / \text{kwamo\textophyo}
\]

blood / is what gives the spirit / to the life (1)

In a sentence containing two or more nucleus groups, once the latter have been identified, there may be a residue of elements which do not fit into any of the Alpha units, but serve to link them. These are labelled with Greek Beta:

\[
\text{\textalpha} \quad \text{\textbeta} \quad \text{\textalpha} \\
\text{meenga} / \text{imeevvaanaang} / \text{\textchanda} / \text{kwamo\textophyo} / \text{ye} / \text{mooyo} / \text{uvvaanaang} / \text{\textchanda}
\]

blood / is what gives the spirit / to the life / and / life / gives the spirit

\[
\text{kwamo\textophyo}
\]

to the blood

Beta elements also serve to join initiating to non-initiating sentences, and non-initiating sentence to each other:

\[
\text{\textalpha} \quad \text{\textbeta} \quad \text{\textalpha} \\
\text{Edyoody} / \text{ikkiikilaanga dyo mphe. Ka\textchisi, / edya\texta di / idya\textambu.}
\]

This / I believe it too. But, / this is the point.

Neither of these is an initiating sentence.

2. See 1.2.1.2., fn., p. 26.

1. In the terms used for one-nucleus sentences:

\[
P \quad i\texta \quad Q^+ \quad J \\
meenga / imeev\textvaanaang / \text{\textchanda} / kwamo\textophyo
\]

\((i\texta \textis [\textiL])\).
The substitution class of Beta consists of particles, of which the commonest are:

\[ \text{yē and } \text{iboos} \text{ and then } \text{kaans} \text{ but} \]

Beta may also contain X:

\[ \beta^{-X} \quad \beta^{X} \]

\[ \text{yē mphe and also } \text{iboos} \text{ mphe and then also} \]

\[ \beta^{X} \]

\[ \text{kaans} \text{ ūtu but however} \]

**Phrasing.** Alpha may begin with a nucleus, or with any of the units capable of standing in pre-nucleus position: G, H, P, S+/-, T, V+/- and X. All of these are phrase-initial when in pre-nucleus position.

The Beta head is always phrase-initial.
2.3. Other aspects of phrasing: 'broken groups'

So far, phrasing has been examined from the viewpoint of the syntactic unit -- which units take phrase-initial, and which non-initial position. There are however some instances in which a phrase-initial item does not head any syntactic unit as defined up till now. Such are the items beginning a phrase in broken unitary groups, some of which have been cited in connection with L and K.

A broken group is a unitary group, the components of which do not all appear in the same phrase:

\[
\begin{align*}
\text{iA} & \quad \text{ii} & \quad \text{iii} & \quad \text{K} \\
\text{ituukū dyāmphovelō} & \quad \text{yina tubbōokelaānga} \\
\text{it is the origin of the word} & \quad \text{that one} \quad \text{which we call}
\end{align*}
\]

\[
\begin{align*}
\text{T} & \quad \text{Q-} & \quad \text{ii} & \quad \text{iii} & \quad \text{L-} & \quad \text{C(G: A)} \\
\text{...muuvaāva ntsāsa zamaάmbu} & \quad \text{mena menāanga vō} & \quad \text{mamphiImpita}
\end{align*}
\]

in seeking an explanation of matters / those which are that / they are of strangeness (of matters which are strange)

Not all such boundaries within nominal groups are associated with the presence of L or K. There are many instances of broken appositional groups, particularly where the item beginning a new phrase is a pronominal:

\[
\begin{align*}
\text{iA} & \quad \text{ii} & \quad \text{iii} \\
\text{imaάmbu} & \quad \text{mau moolē} \quad \text{they are the questions} & \quad \text{they the two}
\end{align*}
\]  

(they are the two questions)

\[
\begin{align*}
\text{S} & \quad \text{ii} & \quad \text{iii} & \quad \text{iv} & \quad \text{v} & \quad \text{vi} \\
\text{muna tteezo kyangōonde zōōzo} & \quad \text{zaū vwa}
\end{align*}
\]

in there the period of those months / they a ninesome  

(during the period of those nine months)
Beyond noting the fact that the division of a unitary nominal group between more than one phrase is often associated with the presence of \( L \) or \( K \), it does not seem possible at the moment to describe the phrase-initial -- but not group-initial -- item as beginning a new unit. It may be added, however, that as in the case of the apparent phrase-initial alternatives for minus units and \( C \), there are at least two items in the new phrase, including those where neither \( L \) nor \( K \) is involved.

2.4. Summary

This brief sketch by no means covers the whole field, but provides sufficient material for a statement of the evidence for and against the view that phrasing is a syntactic marker.

2.4.1. Patterns of syntax-phrasing correlations

A general pattern is now building up, of some units which require phrase-initial position for the head, and others which require non-initial position. In at least one case, that of the \( G \) heads, the phrasing does not entirely depend on the classification of the unit with regard to its external relationships, but is in some, clearly defined, cases determined by the internal relationships of the unit. The same may be said of the \( P \) unit, which takes phrase-initial position in all cases where it is a primary unit, but in other, again clearly defined cases, is non-initial (\( Pa \)).

In addition to those units whose phrasing can be definitely correlated with their syntactic function, there are other where the position at the moment is not amenable to description in terms of
the syntactic units so far established. These are the cases of (i) apparent 'alternation' or variation, where the unit head is sometimes phrase-initial, and sometimes not, and of (ii) broken unitary groups, where phrase boundary occurs within a unitary group.

(i) It will have become apparent that the 'alternating' units have much in common with each other. In the first place, where the general unit has plus and minus divisions, the alternating unit is always the minus one; where there is no such division, the SC of the alternating unit shares the morphological characteristic of absence of Initial Vowel from the unit head. Thus, for instance, the members of the C/SC which are nominals share the absence of IV with the SCs of Q-, R-, S-, V- and T. Secondly, where there appears to be phrasing variation, the phrase-initial examples always contain at least two items, while a single-item unit is non-initial. The converse, however, is not true; some units consisting of more than one item are non-initial.

(ii) The broken unitary groups also display the two characteristics of the phrase-initial alternating units. The first item in the group after the intra-unitary phrase boundary has no Initial Vowel, and is followed by at least one other item in the phrase.

The evidence in favour of the hypothesis that phrasing is governed by syntax is, however, overwhelming, and not to be set aside on the grounds that some units, or even parts of units, do not appear to have a clearly defined phrasing characteristic. Rather, it is suggested that the apparent alternation may prove amenable to description in terms similar to those used for the G unit heads, where certain internal relationships of the unit have
a phrasing exponent which is not that of the slot they fill in relation to units outside G. Here the exponent of internal relationships, in certain well-defined cases, takes precedence over that of external relationships. The Q and C units, for instance, obviously do not require phrase-initial position; in particular, it has been shown that G filling Q slots has more in common with the plus than the minus division of the Q unit, and the plus unit is never

(1) phrase-initial.

In putting forward the suggestion that the apparent phrase-initial alternative may prove to be describable in terms similar to those used for the G heads, one is supported by the fact that the former always shows more than one item after the phrase boundary, of which at least two are in the same phrase. Where there is more than one item in a segment of speech, there is syntactic relationship. So far nothing has come to light which may give guidance on what these special relationships may be, and the distribution of the phrase-initial and non-initial variants remains unclear. The limits placed on delicacy have, perhaps, been a bar to the establishment of full correlation between syntax and phrasing, particularly in the case of the broken unitary groups.

On the other hand, some interesting points of resemblance between different kinds of unit have emerged. One has of course to remember that in the system of phrasing there are only two terms, phrase-initial and non-initial, and it is therefore to be expected that many units will share the same phrasing characteristic. Nonetheless,

1. This statement refers, of course, only to post-nucleus plus units which are not unlinked.
the patterns which appear are worthy of some remark. All primary post-nucleus plus units, for instance, are non-initial (unless unlinked); all primary units before the nucleus are phrase-initial. Perhaps the most striking point is the fact that the nucleus is always phrase-initial, whatever precedes it. Even the P unit (subject) is not given different treatment in this respect from any other pre-nucleus unit. It is perhaps too early in the study of phrasing to postulate some general feature marked by phrase boundary which is common to all occurrences, but it is certainly interesting to note that P is excluded from the nucleus phrase. This suggests that the 'subject' is far less of an integral part of sentence structure than is sometimes imagined.

It is now appropriate to proceed to a more detailed examination of the pitch patterns, in the light of what has been learned about phrasing. Nor will it be forgotten that some of the syntax-phrasing correlations have not been properly established, and that in consequence this question must be re-considered after the pitch patterns have been described.
Table I: Phrasing characteristics of syntactic units

Note: the phrasing characteristic applies only to the head of the unit. Sub-units are phrased as the corresponding primary unit (Y is always a sub-unit). Sub-divisions, such as Ka, are not shown separately unless the phrasing differs from that of the main unit; N and Na, for instance, are shown separately, having different phrasing. Asterisk (*) indicates 'distribution unclear' in the case of units showing more than one phrasing.

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<td>Fa</td>
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<td>Q+(i), Qs</td>
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Table I: Phrasing characteristics of syntactic units / ctd.

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<td>after L</td>
<td>initial/non-initial*</td>
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</table>

The heads of Alpha and Beta, elements of structure on the higher level, are always phrase-initial. A Beta unit always precedes an Alpha. Alpha may begin with A, or any unit of the lower level capable of standing in pre-nucleus position; all these are phrase-initial.

Of the units showing variation in phrasing, only G has clearly defined distribution at this stage.

1. Compare Table IV at the end of Chapter VI, p. 272, where distribution has been defined for all units showing 'alternation'.
Chapter 3

NOMINAL PATTERNS: I

3.0. Introduction

The examination of pitch patterns takes as starting point those of items of the nominal category. In this and the following chapter are developed techniques of description, using nominal data only. In the succeeding two chapters, 5 and 6, it is demonstrated that the patterns of particles and verbals, and sequences of mixed categories, can be described by means of these same techniques. The particle and verbal categories of course present special problems, but these are more readily solved after consideration of the nominals. The space devoted to the latter is accordingly larger, since they provide the data on which the greater part of the systematization is built.

3.1. Pitch and tone: interpretation of pitch data in terms of a tonal system

Zombo is a Bantu language, and one in which differences of pitch pattern are apparently sometimes meaningful. Within the areas where this correlation is found, there are two terms: marked and unmarked pitch.

Many Bantu languages displaying similar pitch-meaning correlations have been described in terms of a tonal system of high and low tones. Other dialects of Kongo, moreover, have been described in this way.

1. Bibliography nos. 4, 10 and 12. No. 12 deals with the related language of Yaka.
It is now appropriate to consider whether the pitch phenomena of Zombo may not be described in similar terms.

Of the two kinds of pitch distinguished in the falling sections of phrases, the marked pitch is characterized by being higher than any succeeding unmarked pitch within the same phrase. The unmarked pitch is characterized by being lower than any marked pitch preceding it within the same phrase. It would therefore seem that the traditional terms 'high tone' and 'low tone' are suitable for the marked and unmarked pitches respectively, provided the following points are borne in mind:

a) vowels are marked/unmarked on the grounds of the pitch characteristics they display in relation to the rest of the phrase in which they occur, not in relation to the rest of the sentence, unless this happens to consist of one phrase;

b) marked pitch is relatively higher than unmarked pitch after it, though not necessarily higher than preceding unmarked pitch;

c) unmarked pitch is relatively lower than a marked pitch before it, but not necessarily lower than a following marked pitch.

The terms 'high tone' and 'low tone' will then be adopted, and defined for the moment as follows:

high tone (H) = any marked pitch, including the peak
low tone (L) = any unmarked pitch after the peak.

Pitches before the peak are left out of account for the present.
3.2. **Nominals in the falling section of a phrase, after the peak**

The only context for which definitions of high and low tone have been established is the falling section of a peaked phrase. The position of peak is a special problem, therefore to avoid difficulties in connection with it, the limits set for this chapter will be that data is taken only from nominals of which the whole occurs after the peak.

An outline of nominal morphology is given in Appendix VI, and the category has been briefly described under 1.5., pp. 39-40 above.

3.2.1. **Tone-classes**

Nominals of comparable structure, displaying different tone-pattern in comparable contexts, are said to belong to different tone-classes (TCs):

- *bawān*’ ēffulu they found the flower (*ef-fulu* flower)
- *bawān* ēffulú they found the place (*ef-fulú* place)

*ēffulu*, with H on the vowel preceding the stem, and *ēffulú*, with H on the second vowel of the stem, are said to belong to different TCs.

Conversely, nominals of comparable structure, displaying similar patterns in comparable contexts, are said to belong the the same TC:

- *bawān*’ ēffulu they found the flower (*ēf-fulu* flower)
- *bawān*’ ēvata they found the village (*ē-vata* village)

The description 'H on pre-stem vowel' applies to both *ēf-fulu* 'the flower' and *ēvata* 'the village', and they are accordingly said to belong to the same TC.
Similarly:

bawān' elfulū they found the place (ef-fulū place)
bawān' ebyā they found the plank (e-bayā plank)

Both ef-fulū 'place' and e-bayā 'plank' can be described in the same terms, 'H on the second vowel of the stem', and are therefore assigned to the same TC, which is not that of the ēf-fulu/ē-vata pair.

These examples are all of -CVCV stems, with prefix C- or zero. If the patterns are described as given, in terms of the position of H within the stem, or in relation to the stem, the two descriptions suffice for the four items. Compare now the patterns of -CVCV stems, whose prefixes are of CV- shape:

bawān' omāvata they found the villages (omā-vata villages)

The description 'H on pre-stem vowel' applies equally to omā-vata 'villages' and to ē-vata 'village', although one has CV- and the other zero prefix. They can thus be subsumed into the same TC.

Compare also:

bawān' omabayā they found the planks (oma-bayā planks)

The description 'H on second stem vowel' applies to omabayā 'planks' as well as to e-bayā 'plank', and ef-fulū 'place'. All three can be assigned to the same TC.

A word of caution is necessary here. Prefix shape appears to be irrelevant in the process of assigning nominals to TCs; the examples used have included cognates, singular/plural pairs such as

1. The 'prefix shape' is quoted without the Initial Vowel e- or o-.

ēf-fulu has a prefix of C-shape, ē-vata has zero prefix, omā-vata a prefix of CV- shape.
é-vata/omá-vata 'village/villages', which differ only in their class prefixes. It should not be assumed from this that all cognates are necessarily in the same TC, even if they share what appears to be the same stem:

(6) l-la to be high, long, deep (Class 15)

nn-dá height, length, depth (Class 9)

These are assumed cognates, but are not in the same TC. l-la has H on pre-stem vowel, nn-dá has H on the (first) stem vowel.

3.2.2. Contextual variants

When nominals are examined in a variety of contexts, their patterns are seen sometimes to differ:

A Q+

bawāan' efūlu they found the flower

A ii Q-
o singa wwañna ffūlu he will find a flower

ef-fulu (Q+) and f-fūlu (Q-) are distinct tonally as well as morphologically. Compare however:

A Q+

bawāan' efūlu they found the place

A ii Q-
o singa wwañna ffūlu he will find a place

There is no tonal distinction between ef-fulu (Q+) and f-fulū (Q-), although there is morphological difference. To gain a complete picture, however, both nominals must be examined in both contexts.

1. The Class 9 prefix is symbolized as NA- (Nasal with additional element) which in combination with l is realized as nnd. See Carter, 'Consonant Reinforcement', 1.4., pp. 120-24, esp. Table II on p. 123.
It is found that examination of nominals in these two contexts gives a complete picture of the total number of patterns displayed.

Not all nominals are capable of standing as Q+ and Q-; there is a large group, for instance, which only occurs with an attached pre-prefix, such as nn-dá 'height, etc.' and mm-bote 'goodness'. There is however a sufficient number which do occur in the Q+ and Q- slots to enable a first classification into TCs to be made.

The material is taken in stages, each dealing with a different type of shape.

3.2.3. Nominals of the structure prefix + stem

This includes all independent nominals, and dependent nominals divisible into prefix + stem, but excludes pronominals and selectors.

3.2.3.1. Nominals without vowel length, stem augment or pre-prefix

(a) C stems. C stems are those whose stem begins with a consonant. Patterns are shown in ascending order of length of stem. The Q+ and Q- variants are given, the former with Initial Vowel, the latter without IV.

<table>
<thead>
<tr>
<th>-CV stems</th>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) father</td>
<td>é-se</td>
<td>sé</td>
<td>5</td>
</tr>
<tr>
<td>fathers</td>
<td>omá-se</td>
<td>ma-sé</td>
<td>6</td>
</tr>
<tr>
<td>(ii), colour,</td>
<td>es-sé</td>
<td>s-sé</td>
<td>14</td>
</tr>
</tbody>
</table>

Two sets of patterns are found for -CV stems. Two TCs are accordingly established and labelled respectively TCI (set i) and TCII (set ii). TCII is an extremely small class, and no examples with CV- prefix have yet been found. It will be noted that the two TCs differ tonally only in the Q+ variant.
-CVCV stems | Q+ variant | Q- variant | Nominal class
---|---|---|---
i) village | é-vata | váta | 5
villages | omá-vata | ma-váta | 6

ii) truth | el-lúdi | l-lúdi | 7
sp. bitter leaves | oma-lúlu | ma-lúlu | 6

iii) plank, pole | e-bayá | bayá | 5
planks, poles | oma-bayá | ma-bayá | 6

Set (i) resembles TCI as established for shorter stems, both in actual patterns and in distribution of the patterns. It is helpful to classify in such a way that this resemblance is brought out, and this can be done by broadening the concept of the TC to include nominals of different stem length which can be described in the same terms, as is the case here. Set (i) is therefore also classified as TCI.

Set (ii) displays a similar resemblance to TCII, and is accordingly included in the same TC.

Set (iii) has no parallel among -CV stems; it is regarded therefore as constituting a new TC, which is labelled TCIII.

-CVCVVCV stems | Q+ variant | Q- variant | Nominal class
---|---|---|---
i) helper, assistant | óns-sadisi/...isi | ns-sádisi/...isi | 1, 3
birth | olú-wutúku/...ukú | lu-wútukú/...úku | 11

ii) white ant | ént-selele | nt-selele | 9

iii) pupil, learner | onl-longóki | nl-longóki | 1, 3
pupils | oa-longóki | a-longóki | 2
Set (i) has free variants with reversed final, H-L or L-H, in all cases.

Here again there are three sets of patterns, but matching them against those of the -CVCV stems does not produce very clear resemblances. Sets (i) and (ii) both conform to the description 'pre-stem H' in the Q+ variant, but set (i) has an extra final or pre-final H, while set (ii) has not. Neither bears any resemblance to either TCII or TCIII.

The best solution here seems to be to divide TCI for these longer stems, and to label set (i) as TCIy, and set (ii) as TCIZ.

Set (iii) resembles TCIII in all respects; there is H on the second stem vowel throughout. Accordingly it is included in TCIII.

There appear to be no parallels to TCII in -CVCV stems.

<table>
<thead>
<tr>
<th>-CVCV stems</th>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) structure</td>
<td>ém-phangaméno</td>
<td>ēm-phangamenó</td>
<td>9</td>
</tr>
<tr>
<td>meeting</td>
<td>olú-kutakánú</td>
<td>lu-kútakanú</td>
<td>11</td>
</tr>
<tr>
<td>(all have reversed final free variants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) spark</td>
<td>én-thimbukila</td>
<td>n-thimbukila</td>
<td>9</td>
</tr>
<tr>
<td>iii) pregnancy</td>
<td>emb-vilámeno</td>
<td>mb-vilámeno</td>
<td>9</td>
</tr>
<tr>
<td>people who correct</td>
<td>ea-sikídisi</td>
<td>a-sikídisi</td>
<td>2</td>
</tr>
</tbody>
</table>

Set (i) conforms to the description of TCIy, having a second high tone on the final or pre-final; the distribution likewise matches, and the set is placed in TCIy.

Set (ii) resembles the patterns of TCIZ and is therefore classed as such.

Set (iii) is classified as TCIII.
There are no parallels to TCII among stems of -CV-CVCV length.

This completes the examination of C stems without vowel length, stem augment or pre-prefix. Longer stems exist, but have not been included. Their patterns do not in fact require additional description, and again, TCII is not found among them.

C stems are distributed among the TCs as follows:

- CV  I  II
- CVCV  I  II  III
- CVCVCV  Iy, Iz  III
- CVCVCVCV  Iy, Iz  III

(b) V stems.

V stems are those whose stems begin with a vowel. Under this heading come nominals in which the prefix-stem boundary is reasonably clear (e.g. (e)nj-izá 'coming') and those in which the prefix and stem vowels are fused (e.g. (o)lóse 'face'). Nominals containing vowel length at any point are not considered in this section.

Nominals where the prefix-stem boundary is clear cause no classificatory difficulties. They can be assigned to the TCs set up for C stems, as variants with zero \( C_1 \). A list of examples is given on the following page, with comparable C stem examples. As in the case of C stems, no examples of TCII are found for stems of length greater than -(C)VCV. V stems are less common than C stems, and examples of TCs Iy and Iz are not recorded for them, apart from a few doubtful cases such as éng-utúka 'birth' from ów-wutúka 'be born'.
### -V stem

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>TC</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>leonard</td>
<td>eng-ô</td>
<td>nê-ô</td>
<td>II</td>
</tr>
<tr>
<td>cf. colour</td>
<td>es-sé</td>
<td>s-sé</td>
<td>II</td>
</tr>
</tbody>
</table>

### -VCV stems

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>TC</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>mother</td>
<td>éng-udi</td>
<td>ng-údi</td>
<td>I</td>
</tr>
<tr>
<td>cf. village</td>
<td>é-vata</td>
<td>váta</td>
<td>I</td>
</tr>
<tr>
<td>vicinity</td>
<td>enj-énga</td>
<td>nj-énga</td>
<td>II</td>
</tr>
<tr>
<td>cf. truth</td>
<td>el-lúdi</td>
<td>l-lúdi</td>
<td>II</td>
</tr>
<tr>
<td>coming</td>
<td>enj-izá</td>
<td>nj-izá</td>
<td>III</td>
</tr>
<tr>
<td>cf. plank</td>
<td>e-bayá</td>
<td>bayá</td>
<td>III</td>
</tr>
</tbody>
</table>

### -VCVCV stem

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>TC</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>way of stting</td>
<td>enj-endélo</td>
<td>nj-endélo</td>
<td>III</td>
</tr>
<tr>
<td>cf. pupil</td>
<td>onl-longóki</td>
<td>nl-longóki</td>
<td>III</td>
</tr>
</tbody>
</table>

### -VCVCVCV stem

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>TC</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>way of making go</td>
<td>enj-endéselo</td>
<td>nj-endéselo</td>
<td>III</td>
</tr>
<tr>
<td>cf. pregnancy</td>
<td>emb-vilámeno</td>
<td>mb-vilámeno</td>
<td>III</td>
</tr>
</tbody>
</table>

V stem: glosses are underlined for clarity’ sake.

Stems with vowel fusion at prefix-stem juncture are not very common, but such few as are found present problems.

### -VCV stems

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>face</td>
<td>olôse</td>
<td>11 (prefix <em>lu-</em>)</td>
</tr>
<tr>
<td>fire</td>
<td>etiya</td>
<td>13 (prefix <em>tu-</em>)</td>
</tr>
</tbody>
</table>

If for the purposes of assignment to a TC the stem is taken to be the final -CV, these can be assigned to TCI:

olô-se cf. omá-se fathers (Q+); lo-sé cf. ma-sé (Q-)

Any other analysis would necessitate setting up a new TC.
These items have two high tones in each variant, reminiscent of TCIy. The similarity is increased by the occurrence of the reversed final free variants. The description of TCIy does not however quite fit. To conform to the statement 'H on pre-stem vowel in Q+ variant', the cut between prefix and stem must be made as ekyé-léka (or ekyé-leká); to conform to the description 'H on first stem vowel in Q-', it must be made as ky-éleká. The items can however be included in TCIy by means of a special statement for fused stems of this length: the fused vowel has a double function, as pre-stem vowel (in Q+) and as first stem vowel (in Q-).

No other tone-classes are represented among stems of this shape.

This item can be included in TCIy, if the special statement as devised for -VCVCV stems is broadened to include -VCVCVCV.

3.2.3.2. Nominals including vowel length, but without augment or pre-prefix

As stated in Chapter 1 (2), the term 'vowel length' is used with the particular meaning of phonetic length, so that the issue of whether the length is to be interpreted as 'long' or 'double' (or even 'triple') is not pre-judged.

1. In the data there is a slight statistical preponderance of final H-L for Q+ and L-H for Q-; these patterns are accordingly cited in the table.

2. See 1.2.1.3., p. 28 above.
a) vowel length after $C_1$ of stem

This includes stems with zero $C_1$ of nominal classes whose typical prefix does not contain a vowel, e.g. (e)ng-ônde 'month, moon'.

Patterns are numerous for stems of -(C)VVCV shape, and they will be taken a few at a time.

<table>
<thead>
<tr>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Nominal class</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) sp. bean</td>
<td>é-deezo</td>
<td>déezo</td>
</tr>
<tr>
<td>pl.</td>
<td>oma-deezo</td>
<td>ma-déezo</td>
</tr>
<tr>
<td>action</td>
<td>é-váangu</td>
<td>váangu</td>
</tr>
<tr>
<td>pl.</td>
<td>oma-váangu</td>
<td>ma-váangu</td>
</tr>
</tbody>
</table>

The simplest approach here seems to be to regard these as variants of -CVCVCV stems, with second C zero, i.e., to analyze the vowel length as 'double'. The items can then be accommodated in TCIz, cf. ònt-selele/nt-séele.

ii) woman

| i)      | ónk-keëntô | nk-keëntô | 1 |
| pl.     | oá-keëntô | a-keëntô  | 2 |

(reversed final free variants)

These can be assigned to TCIy. They display the two high tones and reversed final variation characteristic of this TC.

iii) bark

| i)      | e-búula  | búula    | 5 |
| pieces of bark | oma-búula | ma-búula | 6 |

This set conforms to the description of TCII, having H on the first vowel of the stem throughout. It is true that so far no -CVCVCV stems of TCII have been found, which fact leads to some hesitation in admitting items of this shape as variants of -CVCVCV with zero $C_2$.

However, this is not an insuperable bar. TCII is a very small class; further the absence of a recorded type does not prove its non-existence.
iv) knife | Q+ variant: emm-béele | Q- variant: mm-beéle | Nominal class: 9
God, god | Q+ variant: ond-zámbi | Q- variant: nd-zámbi | Nominal class: 9
moon, month | Q+ variant: eng-óonde | Q- variant: ng-óonde | Nominal class: 9

Here there is a problem. The Q+ patterns conform to the TCII description, having high tone on the first vowel of the stem. The Q- patterns do not, unless the vowel length is to be interpreted as long rather than double. This does not entirely solve the problem, however, since the high tone clearly has not the same position in both variants. It is possible that a new TC may be required here, but for the moment the question of assignment is deferred. If the vowel length is interpreted as double, the Q- variant has the pattern of TCIII, rather than TCII.

v) pumpkin | Q+ variant: e-leéngé | Q- variant: leéngé | Nominal class: 5
pl. | Q+ variant: oma-leéngé | Q- variant: ma-leéngé | Nominal class: 6
one who seeks | Q+ variant: omv-vaávi | Q- variant: mv-vaávi | Nominal class: 1
husband, borrower | Q+ variant: ons-soó(m)pi | Q- variant: ns-soó(m)pi | Nominal class: 1

All these can be described as displaying the 'second stem H' typical of TCIII, if the vowel length is analyzed as 'double', and the stem regarded as a variant of -CVCVCV, with zero C₂.

If this is so, there is no room for the previous set (emm-béele/mm-beéle etc.) in TCIII, although the latter seems to have some affinity with TCIII, as well as with TCII.

It would seem, therefore, that a fourth TC is required for set (iv).

On the other hand, no more than three TCs were required for stems without vowel length, although one was eventually sub-divided for longer
It might be possible to reduce the number of TCs required for
description of these problematical cases by analyzing in some cases as
long vowel, and in others as double. It has been pointed out
that the *emm-béele* set might be included in TCII if the vowel length
were interpreted as long rather than double. The different position
of high tone in the two variants could then be taken care of by a
special long vowel rule.

One difficulty in adopting this approach is that there is no
phonetic difference whatsoever between the vowels analyzed as 'long —
as in *emm-béele* — and those analyzed as 'double' — as, for instance,
was found the simplest solution for nominals like *é-deezo*, classified
as TCII on the analogy of *ént-seléle*. One could even analyze the
vowel of *é-deezo* as long rather than double, and include it as a long
vowel variant of -CV:CV, namely -CV:CV.

In some cases a long vowel analysis is not only unnecessary but
positively disadvantageous: *e-leéng/e-leéng* will only fit into TCIII
(on its present definition of 'second stem vowel has high tone
throughout') if the vowel is taken as double, representing -CV(C)VCV.

The attempt to reduce the number of tone-classes seems at the
moment to produce more problems than it solves. The simplest solution
appears to be, to establish a fourth tone-class — TCIV — for the
*emm-béele* set.

The TCs are now beginning to look a little ragged. In some cases
special rules or statements have had to be set up in order to include
certain stem shapes, as in the case of the fused prefix-stem vowels.
In others, the decision to include in one TC rather than another
is somewhat arbitrary, depending on the analysis of vowel length,
which again is arbitrary.
-CVVCVCV stems | Q+ variant | Q- variant | Nominal class
--- | --- | --- | ---
i) similarity | ęb-beetela | b-beetelá | 7
presentation | olú-suünzúlu | lu-suünzulú | 11
(reversed final variants)
ii) difference | źnt-swaaswani | nť-swáaswani | 9
victory | źnt-suundidi | nť-sůundidi | 9
iii) peace | olu-vuúvamu | lu-vuúvamu | 11
iv) marriage | ent-soó(m)pelo | nt-soó(m)pelo | 9

Set (i) can be assigned to TCIy. It makes no difference whether the vowel length is analyzed as long or double. Either as variants of -CVVCVCV stems with zero C₂, or as long vowel variants of -CVVCVCV (i.e., -CV:CVCV), the description of TCIy fits them.

Set (ii) can likewise be assigned to TCIz, without need for a decision on the vowel length.

Set (iii) conforms to the description of TCIII, but only if the vowel length is analyzed as double; the stem must be regarded as -CV(C)VCVCV with zero C₂, if the high tone is to be described as on the second vowel.

None of the sets resembles TCII, or the new TCIV set up for emm-béele and its set.

Set (iv) presents a difficulty. The Q+ patterns are like those of TCIII, but the Q- patterns are entirely new, if the vowel length is analyzed as double. 'H on third stem vowel' has not been met with before. The long vowel analysis might help here; the item could be taken as a long vowel variant of -CVVCVCV, namely -CV:CVCV. The Q-
is now in conformity with the TCIII description — but the Q+ pattern is not, and requires a special statement, of the following form:

'There is high tone on the first (long) vowel in Q+ patterns of -CV:CV stems of TCIII, instead of on V₂ as in the -CV:CV stems; moreover, the high tone is on the latter part of the long vowel.'

If this is done, a chain reaction starts. What of the shorter stems in this TC, such as ons-soö(m)pi? It seems absurd to regard both this and ent-soö(m)pelo as -CV:CV stems. But if ons-soö(m)pi is itself classified as -CV:CV, then a special rule has to be set up for it. The patterns are ons-soö(m)pi(Q+) and ns-soö(m)pi (Q-); the statement linking these patterns with the rest of TCIII must be of the form:

'There is high tone on the latter part of the long vowel in -CV:CV stems of TCIII, instead of on the second vowel of the stem, as for -CV:CV.'

The long vowel analysis is certainly a two-edged weapon. It is to some extent useful for emm-béels and ent-soö(m)pelo, not really required for TCs Iy and Iz, and a handicap in TCIII (apart from ent-soö(m)pelo). Without it, however, one is faced with two new TCs, in addition to the original three: one for emm-béels(IV), and the other for ent-soö(m)pelo (V).

1. It should be stressed that these comments are made from the viewpoint of synchronic description only. A diachronic approach finds the long/double vowel distinction of the utmost use.
A note on vowel length and nasal combinations

A note on the relationship between the occurrence of vowel length and the presence of a nasal combination is necessary here. It is true that in the overwhelming majority of cases, vowel length which on tonal grounds requires, favours or permits the long vowel analysis, does occur before a nasal combination:

\[ \text{end-zaambi} \quad \text{God} \quad \text{è-vaangu} \quad \text{action} \quad \text{ént-suuniidi} \quad \text{victory} \]

and examples could be multiplied many times over. There is certainly a general association of long vowel and position before a nasal combination. Nevertheless, not all vowel length of this kind occurs in such a position:

\[ \text{ent-soöpelo} \quad \text{(var. ent-soömpelo)} \quad \text{marriage} \]
\[ \text{emm-bëele} \quad \text{knife} \quad \text{omá-deezo} \quad \text{sp. beans} \]

and in the latter two cases, not even derivation from NC can be supposed for the consonant. For \text{emm-bëele} in particular it is excluded, since \text{*nl} never occurs as \text{C_2} or \text{C_3}.

Furthermore, not all vowel length before NC requires the long vowel analysis:

\[ \text{önk-keénto} \quad \text{woman, wife} \]

excludes this analysis, since the two high tones proclaim it a member of TCII, never found for stems shorter than \text{VCVCV}.

1. NC tends to be simplified to \text{C}, when \text{C} is a voiceless consonant. There appear to be restrictions on this; all examples so far are from TCIII, although the pair of alternatives \text{önj-yaantika}/\text{önj-yatika} 'beginning' (Class 9) is suggestive of a similar reduction in TCII in which, however, vowel length is not retained after loss of the nasal.
Finally, there is the fact that not all vowels before NC have length:

\[
\text{él-lumbu day } \quad \text{ent-sangála basket}
\]

and similar examples form a substantial group.

While examples disconfirming the V:NC hypothesis are not as numerous as those which tend to support it, they are nonetheless sufficient to make its adoption difficult.

b) nominals with vowel length after C of a CV- prefix

Some nominals which belong to a class whose typical prefix is of CV- shape, display vowel length after C of the prefix.

The item máana 'trade goods' (Class 6) belongs to a class whose typical prefix is ma-. It seems reasonable here to separate prefix and stem after the typical prefix shape: má-ana, analyzing the vowel as double.

In other instances a different division seems to be called for:

\[
\begin{align*}
\text{muúntu} & \quad \text{person (Class 1)} \\
\text{waántu} & \quad \text{people (Class 2)}
\end{align*}
\]

suggests stem -ntu, with vowel length in the prefix. Yet others suggest neither analysis positively:

\[
\begin{align*}
\text{kiínzu} & \quad \text{pot (Class 7)} \\
\text{yiínzu} & \quad \text{pots (Class 8)}
\end{align*}
\]

Here, however, the typical C stem prefix is gemination of the consonant beginning the stem, while ki-/yi- are the typical V stem prefixes. (1)

---

1. 'C stem' here does not include augmented stems. 'Gemination' replaces the term 'reinforcement' used in the writer's previous work. See Carter, 'Consonant Reinforcement', bibliography no. 3.
For the purposes of assignment of nominals to TCs in the simplest manner possible, it is sometimes convenient to divide prefix and stem in a way which is inconsistent with the morphological analysis. *ki*-nzuzu for example is best divided as *ki*-nzu, although the prefix *ki-* is elsewhere only a V stem or augmented stem prefix.

There are then two sets of CVVCV nominals, one CV-VCV, and the other CVV-CV (or CV-:-CV).

<table>
<thead>
<tr>
<th>CV-VCV</th>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Class</th>
<th>Typical prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>trade goods</td>
<td>omá-ana</td>
<td>ma-ána</td>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>leg, foot</td>
<td>okú-ulu</td>
<td>ku-úlu</td>
<td>15(17)</td>
<td>ku-</td>
</tr>
<tr>
<td>pl.</td>
<td>omá-alu</td>
<td>ma-alu</td>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>enclosure</td>
<td>olú-umbu</td>
<td>lu-úmbu</td>
<td>11</td>
<td>ñu-</td>
</tr>
<tr>
<td>arm, hand</td>
<td>okó-oko</td>
<td>ko-óko</td>
<td>15(17)</td>
<td>ku-</td>
</tr>
<tr>
<td>pl.</td>
<td>omó-oko</td>
<td>mo-óko</td>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>child</td>
<td>omwá-ana</td>
<td>mwa-ána</td>
<td>1</td>
<td>mu-*</td>
</tr>
<tr>
<td>pl.</td>
<td>owá-ana</td>
<td>wa-ána</td>
<td>2</td>
<td>wa-*</td>
</tr>
</tbody>
</table>

* V stem prefix, differing in shape from C stem prefix.

These can be assigned to TCI, if the cut is made as shown.

<table>
<thead>
<tr>
<th>CVV-CV</th>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Class</th>
<th>Typical prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>pot</td>
<td>ekíf-nzu</td>
<td>kíi-nzú</td>
<td>7</td>
<td>ki-*</td>
</tr>
<tr>
<td>pl.</td>
<td>evíf-nzu</td>
<td>yií-nzú</td>
<td>8</td>
<td>yi-*</td>
</tr>
<tr>
<td>person</td>
<td>omuí-ntu</td>
<td>muú-ntú</td>
<td>1</td>
<td>mu-*</td>
</tr>
<tr>
<td>pl.</td>
<td>owái-ntu</td>
<td>waa-ntú</td>
<td>2</td>
<td>wa-*</td>
</tr>
<tr>
<td>blood</td>
<td>emeë-nga</td>
<td>mee-ngá</td>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>life</td>
<td>omoë-yó</td>
<td>moo-yó</td>
<td>3</td>
<td>mu-*</td>
</tr>
</tbody>
</table>

* V stem prefix, differing in shape from C stem prefix.

Again, the items of this set can be assigned to TCI, if the cut is made after the second (or long) vowel of the prefix.
It is noticeable that, where the C and V stem prefixes differ in shape, in both sets the V stem prefix is that displayed.

For longer stems with vowel length after C of the prefix, few items are recorded. The second kind of division appears the most suitable for these, giving CVV-CVCV (or CV:-CVCV).

<table>
<thead>
<tr>
<th>CVV-CVCV</th>
<th>Q+ variant</th>
<th>Q- variant</th>
<th>Class</th>
<th>Typical prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>males, men</td>
<td>omaá-kala</td>
<td>maa-kála</td>
<td>6</td>
<td>ma-</td>
</tr>
<tr>
<td>sesame</td>
<td>owaa-ngila</td>
<td>waa-ngila</td>
<td>14</td>
<td>u-*</td>
</tr>
</tbody>
</table>

* V stem prefix differing in shape from C stem prefix.

These also may be accommodated in TCI. The first, omaákala, has a corresponding singular which is a regular TCIII C stem: Class 5 e-yakála/yakála 'man, male'. It is also related to another TCIII nominal, emm-bakála/mm-bakála 'male animal' (Class 9). The general resemblance to ent-soó(m)pélo/nt-soo(m)pélo 'marriage' will also have been noted.

The patterns of the nominals showing vowel length after C of the prefix raise interesting historical speculations, but it is not the purpose to pursue them here. Another interesting fact from this point of view if that all nominals in Zombo contain at least one high tone, although many of them are reflexes of Common Bantu starred forms without high tone, e.g. *omuúntu*.

1. CB *-ntù. Professor Guthrie, personal communication.
c) vowel length at other points

No further problems are created by nominals displaying vowel length at points other than after C₁ of the stem, or after C of the prefix. These can be assigned to TCs already established, without the necessity of analyzing vowel length one way or the other, and are distributed between TCIII and the long stem sub-divisions of TCI.

<table>
<thead>
<tr>
<th>-CVCVCV stems</th>
<th>Q+ variant</th>
<th>Q− variant</th>
<th>Nominal class</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>farewell</td>
<td>omá-kanaánú</td>
<td>ma-kánaani</td>
<td>6</td>
<td>Iy</td>
</tr>
<tr>
<td>difficulty, problem</td>
<td>olú-tokaánu</td>
<td>lu-tókaanú</td>
<td>11</td>
<td>Iy</td>
</tr>
<tr>
<td></td>
<td>(reversed final variants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a seventy</td>
<td>olu-sambwáadi</td>
<td>lu-sambwáadi</td>
<td>11</td>
<td>III</td>
</tr>
<tr>
<td>sp. tree</td>
<td>ont-tontóoci</td>
<td>nt-tontóoci</td>
<td>3</td>
<td>III</td>
</tr>
<tr>
<td>-CVCVCVCV stems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mutual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>understanding</td>
<td>éng-wiizaani</td>
<td>ng-wiizaani</td>
<td>9</td>
<td>Iz</td>
</tr>
<tr>
<td>difference</td>
<td>ént-swaaswaani</td>
<td>nt-swaaswaani</td>
<td>9</td>
<td>Iz</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-CVCVCVCV stems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>distress</td>
<td>olú-tokaneésu</td>
<td>lu-tókaneesú</td>
<td>11</td>
<td>Iy</td>
</tr>
<tr>
<td>mutual trust</td>
<td>én-kwikazyána</td>
<td>n-kwikazyaaná</td>
<td>9</td>
<td>Iy</td>
</tr>
<tr>
<td></td>
<td>(reversed final variants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouragement</td>
<td>olu-kasákeeso</td>
<td>lu-kasákeeso</td>
<td>11</td>
<td>III</td>
</tr>
</tbody>
</table>

Despite the difficulties encountered in assorting nominals without augment or pre-prefix into TCs, it can be done. Whether there is much profit to be obtained from the exercise is another matter, and

1. Var, ént-swaaswaani.
in the present case it seems of limited use.

There is a further point, that for some nominals there are variants, or partial variants, in more than one TC. Such is end-zilá (TCIII) or end-zíla (TCII) 'path, way', which has Q+ variants in two TCs, but Q- variant in TCIII only, nd-zilá.

The immediately relevant facts to emerge from the study of nominals so far are:

1) the Q+ and Q- patterns are sometimes different
2) the Q+ variant has Initial Vowel and the Q- variant has not.

The tonal variation, where it occurs, is associated with a morphological variation.

Below are listed the types of behaviour exhibited by the five TCs in respect of Q+/Q- pattern variation. The examples are not necessarily previous citations.

<table>
<thead>
<tr>
<th>Tone-class</th>
<th>Q+/Q- patterns</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>I, Iy, Iz</td>
<td>different</td>
<td>énd-zo / nd-zó house</td>
</tr>
<tr>
<td></td>
<td></td>
<td>émm-buta / mm-búta adult, elder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>omuú-ntu / muu-ntú person</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ónk-keénto / nk-keéntó woman, wife</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ómf-fwíidi / mf-fwiidi bereaved person, widow(er)</td>
</tr>
<tr>
<td>II</td>
<td>same</td>
<td>el-lúdi / l-lúdi truth</td>
</tr>
<tr>
<td>III</td>
<td>same</td>
<td>enn-dókí / nn-dókí witch</td>
</tr>
<tr>
<td>IV</td>
<td>different</td>
<td>ond-zaámbi / nd-zaámbi God</td>
</tr>
<tr>
<td></td>
<td></td>
<td>enn-dúumba / nn-duúmba maiden, girl</td>
</tr>
<tr>
<td>V</td>
<td>different</td>
<td>eng-aángula / ng-aangúla smith</td>
</tr>
</tbody>
</table>

3.2.3.3. **Augmented stems**

Nominals with one or more augments between prefix and stem


do not show the same range of patterns as do those without augment.

In no case is there tonal variation between the Q+ and Q- patterns,
although there is the same morphological variation of presence/absence
of Initial Vowel.

In many cases, although by no means all, augmented nominals may be
cognate with unaugmented nominals. The table below illustrates nominals
of this kind, with the cognate unaugmented nominals given for comparison.

<table>
<thead>
<tr>
<th>Q+/Q-</th>
<th>Unaugmented cognate</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>houses (e)zi-nd-zo</td>
<td>énd- zo / nd-zó</td>
<td>house/s I</td>
</tr>
<tr>
<td>age (e)ki-mn-buta</td>
<td>émm-buta / mn-búta</td>
<td>adult, elder I</td>
</tr>
<tr>
<td>human nature (e)ki-muúntu</td>
<td>omuú-ntu / muu-ntu</td>
<td>person I</td>
</tr>
<tr>
<td>wifehood (e)ki-nk-keénto</td>
<td>ónk-keénto / nk-keéntó</td>
<td>woman, wife Iy</td>
</tr>
<tr>
<td>bereavement (e)ki-mf-fwíidi</td>
<td>ómf-fwíidi / mf-fwíidi</td>
<td>widow(er) Iz</td>
</tr>
<tr>
<td>witchcraft (e)ki-nn-doki</td>
<td>enn-doki / nn-doki</td>
<td>witch III</td>
</tr>
<tr>
<td>manhood (e)ki-yakála</td>
<td>e-yakála / yakála</td>
<td>man, male III</td>
</tr>
<tr>
<td>divinity (o)u-nd-zámbi</td>
<td>ond-zámbi / nd-zámbi</td>
<td>God IV</td>
</tr>
<tr>
<td>smithery (e)ki-ng-aángula</td>
<td>eng-aángula / ng-aangula</td>
<td>smith V</td>
</tr>
</tbody>
</table>

It will be seen that, where the unaugmented cognate is of a TC
showing tonal variation between Q+ and Q- variants, the augmented
nominal pattern matches that of the Q+ variant.

Not all augmented nominals have unaugmented cognates, but all show
the same lack of tonal variation in the Q context:

| challenge (e)ki-n-yyyyá | whispering (e)ki-mp-fundífundu |
| milk (e)ki-mb-vumina | finger-snapping (e)ki-nn-dookela |
3.2.3.4. **Nominals with morphologically variable pre-prefix**

By 'morphologically variable pre-prefix' is meant a prefix which
a) is attached to a complete nominal and
b) may appear with or without Initial Vowel.

This category includes the extra independent prefixes (EIPs) of
Classes 16-19, and the dependent possessive prefixes:

(o)va-nd-za on (= in) the world; (o)va- Class 16 EIP,

(é)nd-za world, Class 9.

(e)fi-njy-ilíndu (a) faint idea(s); (e)fi- Class 19 diminutive EIP,

(e)nj-yilíndu thought/s, Class 9/10.

(e)dya-nd-mbote a good (thing); (e)dya- Class 5 possessive

prefix, nd-mbote goodness, Class 9(?)

The morphologically variable, or, more simple, 'variable' prefixes are
so called to distinguish them from other pre-prefixes, such as ye- 'with'
and kwa- 'by, to, from' which may not have IV. These latter are always
phrase-initial and therefore outside the scope of the present chapter.
The variable prefixes however appear in the falling section of phrases,
after the peak, and can thus be included.

The Class 19 diminutives appear filling Q+ and Q−, but the
Class 16-18 locatives do not. In order to examine the latter, therefore,
the range of contexts must be widened.

Many nominals may have any of these prefixes attached, and it is
found that the patterns are identical, whether the item has Class 19 EIP
attached and stands as Q+, or has a locative prefix and functions as S+.

1. **mm-bote** never appears without possessive prefix attached. It has
a prefix of Class 9 shape, but this never controls agreements.
Similarly, a nominal with Class 19 pre-prefix functioning as Q- has a pattern no different from that of the same nominal with a locative pre-prefix, filling S-.

\[ Q^+ \text{ efinjiíndu} \quad Q^- \text{ finjiíndu} \quad \text{faint idea/s} \]
\[ S^+ \text{ omunjyiíndu} \quad S^- \text{ munjiíndu} \quad \text{in the mind} \]

Where no Q+/Q- variants exist, therefore, the S+/S- variants will be given. Nominals with possessive prefix may, of course, fill Q+ and Q-.

As in the case of augmented stems, there is only one, undifferentiated, pattern for both plus and minus variants. Further, again as for the augmented stems, the undifferentiated variant for the pre-prefix nominal is similar to that of the Q+ variant of the unpre-prefix corresponding nominal. The latter are given for comparison.

<table>
<thead>
<tr>
<th>Q+/S+/Q-/S-</th>
<th>Unpre- Prefix</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>in the world</td>
<td>(o)vá-nd-za</td>
<td>énd-za / nd-zá</td>
</tr>
<tr>
<td>of newness</td>
<td>(e)kýá-m-pha cf. &quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>of manyness</td>
<td>(o)a-yí-ingi cf. omvá-ana / mwa-ána</td>
<td>child</td>
</tr>
<tr>
<td>of goodness</td>
<td>(e)dyá-mm-bote cf. émm-buta / mm-búta</td>
<td>adult</td>
</tr>
<tr>
<td>in the school</td>
<td>(o)mú-sikoóla</td>
<td>é-sikoóla / sikoóla</td>
</tr>
<tr>
<td>of length</td>
<td>(e)kya-nn-dá cf. es-sé / s-sé</td>
<td>colour</td>
</tr>
<tr>
<td>of truth</td>
<td>(e)dva-l-lúdi</td>
<td>el-lúdi / l-lúdi</td>
</tr>
<tr>
<td>faint idea/s</td>
<td>(e)fi-nj-yíndu</td>
<td>enj-yíndu / nj-yíndu</td>
</tr>
<tr>
<td>on the island</td>
<td>(o)va-s-saánga</td>
<td>es-saánga / s-saánga</td>
</tr>
<tr>
<td>of a man</td>
<td>(e)dyá-yakála</td>
<td>e-yakála / yakála</td>
</tr>
<tr>
<td>to the moon</td>
<td>(o)ku-ng-óonde</td>
<td>eng-óonde / ng-óonde</td>
</tr>
<tr>
<td>in marriage</td>
<td>(o)mu-nt-soópelo</td>
<td>ent-soópelo / nt-soópelo</td>
</tr>
</tbody>
</table>

Where the unpre-prefix nominal is of TCs I, IV or V - i.e., has different patterns for Q+ and Q- - the pre-prefix pattern matches that of Q+.
The pre-prefix preceded and augmented nominals thus display identical pattern sets. Both have morphological, but no tonal, variation, and the undifferentiated patterns match those of the Q+ variants of the corresponding nominals without pre-prefix.

3.2.3.5. Class 15 independent nomino-verbals

Independent nomino-verbals (INVs) of Class 15 fill the F+ and F-slots. Their patterns in these contexts after peak are shown on the following two pages, compared with Q contextual variants of nominals of similar shape which have already been illustrated.

INVs are distributed among TCs I, and III (including sub-divisions of TCI). It will be seen that a 'long vowel' analysis for those stems marked as TCI/Iz would be advantageous for INVs, making the distribution of TCI stems neater. Such examples as óv-vaanga / v-vaanga 'to do, to make', can be assigned to TCI as long vowel variants of -CVC-, and the entire set would then be distributed among TCs I and Iy only. On the other hand, a long vowel analysis is not useful for stems of the same shape which are not in TCI, e.g. os-soompap / soompapa, since the high tone is then no longer on the second vowel, and a special rule is required to include them in TCIII.

A final point to note is the non-appearance of TCV among INVs. Shapes such as ov-viíngila / v-viíngila 'to replace' do not show a difference of pattern in F-, whereas other nominals of this shape have such a difference, e.g. ent-soömpelo / nt-soömpelo, as between Q+ and Q-variants. If the long vowel analysis is not pursued, these can be admitted into TCIII without need for a special rule.
<table>
<thead>
<tr>
<th>Radical Type</th>
<th>F+/Q+</th>
<th>F-/Q-</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>-C(V) radicals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to die</td>
<td>f-fwa</td>
<td>f-fwá</td>
<td>I</td>
</tr>
<tr>
<td>cf. father</td>
<td>é-se</td>
<td>sé</td>
<td>I</td>
</tr>
<tr>
<td><strong>-CVC- radicals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to see</td>
<td>ōm-mona</td>
<td>m-móna</td>
<td>I</td>
</tr>
<tr>
<td>cf. flower</td>
<td>éf-fulu</td>
<td>f-fúlu</td>
<td>I</td>
</tr>
<tr>
<td>to laugh</td>
<td>os-sevá</td>
<td>s-sevá</td>
<td>III</td>
</tr>
<tr>
<td>cf. place</td>
<td>ef-fulú</td>
<td>f-fulú</td>
<td>III</td>
</tr>
<tr>
<td><strong>-CVVC- radicals (i)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to do, make</td>
<td>év-vaanga</td>
<td>v-váanga</td>
<td>I? , Iz?</td>
</tr>
<tr>
<td>cf. creature</td>
<td>év-vaangu</td>
<td>v-váangu</td>
<td>I? , Iz?</td>
</tr>
<tr>
<td>to borrow</td>
<td>os-soð(m)pa</td>
<td>s-soð(m)pa</td>
<td>III</td>
</tr>
<tr>
<td>cf. borrower</td>
<td>ons-soð(m)pi</td>
<td>ns-soð(m)pi</td>
<td>III</td>
</tr>
<tr>
<td><strong>-CVVC- radicals (ii)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to come from</td>
<td>ót-tuúka</td>
<td>t-túuká</td>
<td>Iy (reversed final variants)</td>
</tr>
<tr>
<td>cf. origin</td>
<td>é-tuúku</td>
<td>túukú</td>
<td>Iy</td>
</tr>
<tr>
<td>to seek</td>
<td>cv-vaáva</td>
<td>v-vaáva</td>
<td>III</td>
</tr>
<tr>
<td>cf. hope</td>
<td>ev-vuúvu</td>
<td>v-vuúvu</td>
<td>III</td>
</tr>
<tr>
<td><strong>-CVVC- radicals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to sit</td>
<td>ók-kosóka</td>
<td>k-kósoká</td>
<td>Iy</td>
</tr>
<tr>
<td>cf. help</td>
<td>olú-sádisu</td>
<td>lu-sádisú</td>
<td>Iy</td>
</tr>
<tr>
<td>to learn</td>
<td>ol-longóka</td>
<td>l-longóka</td>
<td>III</td>
</tr>
<tr>
<td>cf. pupils</td>
<td>ca-longóki</td>
<td>a-longóki</td>
<td>III</td>
</tr>
</tbody>
</table>

Iy has reversed final variants throughout.
### _CVCVCV- radicals (i)_

<table>
<thead>
<tr>
<th>Action</th>
<th>F+/Q+</th>
<th>F-/Q-</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>to wait for</td>
<td>óv-viingila</td>
<td>v-viingila</td>
<td>Iy</td>
</tr>
<tr>
<td>cf. presentation (1)</td>
<td>olú-suunzúlu</td>
<td>lu-suunzúlu</td>
<td>Iy</td>
</tr>
<tr>
<td>to replace</td>
<td>ov-viingila</td>
<td>v-viingila</td>
<td>III</td>
</tr>
<tr>
<td>cf. marriage</td>
<td>ent-soomèlo</td>
<td>nt-soomèlo</td>
<td>V</td>
</tr>
</tbody>
</table>

### _CVCVCV- radicals (ii)_

<table>
<thead>
<tr>
<th>Action</th>
<th>F+/Q+</th>
<th>F-/Q-</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>to call, name</td>
<td>ób-bookèla</td>
<td>b-bookèla</td>
<td>Iy</td>
</tr>
<tr>
<td>cf. similarity</td>
<td>éb-beetèla</td>
<td>b-beetèla</td>
<td>Iy</td>
</tr>
<tr>
<td>to be needed for</td>
<td>ov-vaávilwa</td>
<td>v-vaávilwa</td>
<td>III</td>
</tr>
<tr>
<td>cf. peace</td>
<td>olu-vuúvamu</td>
<td>lu-vuúvamu</td>
<td>III</td>
</tr>
</tbody>
</table>

-Iy has reversed final variants throughout-

The exclusion of INVs from certain TCs is interesting. _-C(V)-_ radicals are found in TCI only, although there may be cognates in TCII, and cognate INVs in TCIII:

- **ól-la** to be tall, long, high (Class 15 INV, TCI)
- **ol-leéva** to be tall, long, high (Class 15 INV, TCIII)
- **nn-dá** tallness, height, length (Class 9?, TCII)

The chief point however is that Class 15 INVs, like other independent nominals, display two variants, whose patterns differ for some TCs, and that this variation can be correlated with the morphological variation of presence/absence of Initial Vowel.

These items are also found with infixes; the Class 15 prefix is then _ku-_ , as opposed to the prefix for C stems without object infix,

---

1. 'To take the place of', not 'put back'.
which consists of gemination of C1. There are special features in
these: INVs of TCIII (ssevá) display two high tones with an added infix,
those of TCI and its subdivisions show no additional high tone. The
patterns of all but -CVC- and 'long vowel' -CV\C- radicals of TCIII are
as for F+ variants of the corresponding TCI\y stems. TCI and its
divisions have patterns as for F+ of the stems without infix.

<table>
<thead>
<tr>
<th>with infix</th>
<th>without infix</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>to hear them</td>
<td>(o)ku-á-wa</td>
<td>6w-wa/w-wá</td>
</tr>
<tr>
<td>to see them</td>
<td>(o)kú-á-mona</td>
<td>6m-mona/m-mona</td>
</tr>
<tr>
<td>to laugh at them</td>
<td>(o)ku-á-sevá</td>
<td>os-sevá/s-sevá</td>
</tr>
<tr>
<td>to guard them</td>
<td>(o)ku-á-keenga</td>
<td>6k-keenga/k-keenga</td>
</tr>
<tr>
<td>to marry them</td>
<td>(o)ku-á-soómpa</td>
<td>os-soómpa/s-soómpa</td>
</tr>
<tr>
<td>to leave them</td>
<td>(o)ku-á-sílsa</td>
<td>6s-sílsa/s-sílsa</td>
</tr>
<tr>
<td>to seek them</td>
<td>(o)ku-á-vááva</td>
<td>ov-vááva/v-vááva</td>
</tr>
<tr>
<td>to help them</td>
<td>(o)ku-á-sádísá</td>
<td>6s-sádísá/s-sádísá</td>
</tr>
<tr>
<td>to visit them</td>
<td>(o)ku-á-kiyíla</td>
<td>ok-kiyíla/k-kiyíla</td>
</tr>
<tr>
<td>to wait for them</td>
<td>(o)ku-á-víingíla</td>
<td>6v-víingíla/v-víingíla</td>
</tr>
<tr>
<td>to take their place</td>
<td>(o)ku-á-víingíla</td>
<td>ov-víingíla/v-víingíla</td>
</tr>
<tr>
<td>to call them</td>
<td>(o)ku-á-bookéla</td>
<td>6b-bookéla/b-bookéla</td>
</tr>
<tr>
<td>to arrive for them</td>
<td>(o)ku-á-lwaákíla</td>
<td>ol-lwaákíla/l-lwaákíla</td>
</tr>
<tr>
<td>to remember them</td>
<td>(o)ku-á-sungaména</td>
<td>6s-sungaména/s-sungaména</td>
</tr>
<tr>
<td>to forget them</td>
<td>(o)ku-á-vilakána</td>
<td>ov-vilakána/v-vilakána</td>
</tr>
</tbody>
</table>

Note that, with infix, 'to wait for them' and 'to take their place'
are not distinguished.

The outstanding peculiarity here is the appearance of (o)ku-á-sevá,
'to laugh at them' and (o)ku-á-soómpa 'to borrow/marry them'. These are
the only items of their shape to appear so far with two high tones.

---

1. A husband is said to 'borrow' his wife; she can be returned if the
marriage goes wrong.
There is no TC among those established which can accommodate them, without special statements.

It is at this point that the attempt to sort nominals into tone-classes breaks down. It is no longer of particular use as a convenient way of referring to the sum of the patterns for many items; in a few cases, such as that of TCI (without the sub-divisions) it is to some extent helpful, but in very many it is not. In future, therefore, a nominal will be quoted with both patterns, or the undifferentiated patterns if there is no distinction. E.g.

flower š=įlu/f-ššu but (o)ššu place

smith en-g-a-a-a-gul/ng-aangūla (o)mí-nd-zo in the house

The exercise has not been without benefit, however, in showing general groupings of items, and relationships of patterns.

In the case of the INVs with infix, the main point to emerge is that, however unusual some of the actual patterns may be, there is only one undifferentiated pattern for F+ and F- when the item contains an infix. These patterns then take their place with those of the augmented stems and nominals with pre-prefix, which show a similar want of differentiation.

3.2.4. Pronominals and selectors

Under this heading are grouped pronominals, demonstratives and pronominal stems with prefix directly attached. There are twelve series in all, not all of which occur in Q+/Q- contexts. An outline of the series and their meanings is given in Appendix VI. Below are shown the patterns of the variants which occur.
Some series have distinct forms for persons of Classes 1 and 2, others have none. Still others appear to be even more restricted, to a few classes only. This is the case with series which are semi-dependent, such as Series 4. The patterns are therefore given separately for each series.

The variant 'with IV' implies a plus unit context; 'without IV' implies a minus unit context.

Series 1: pronominal, with distinction of persons.

<table>
<thead>
<tr>
<th>Nominal Class</th>
<th>1/1</th>
<th>1/2</th>
<th>1/3</th>
<th>2/1</th>
<th>2/2</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>With IV</td>
<td>o-mono</td>
<td>o-ngwe</td>
<td>o-yandi</td>
<td>o-yesto</td>
<td>o-yeno</td>
<td>o-yau</td>
</tr>
<tr>
<td>Without IV</td>
<td>mono</td>
<td>ngwe</td>
<td>yaandi</td>
<td>yesto</td>
<td>yeono</td>
<td>yaau</td>
</tr>
</tbody>
</table>

All except Class 1, 1st and 2nd persons, display a different pattern for IV and non-IV variants.

Series 2: 'that/those', distant, but within sight or under discussion. There is no distinction of persons. The series occurs only in plus contexts.

<table>
<thead>
<tr>
<th>Nominal Class</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>14</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>With IV</td>
<td>o-ṣna/e-ndiṣna</td>
<td>e-ṣna/e-ṇa</td>
<td>e-dina</td>
<td>o-wuña</td>
<td>o-kuña</td>
</tr>
</tbody>
</table>

Some members have alternatives; that most often found in the material is shown first.
Series 3: meanings as for Series 2. There is no distinction of persons, and only a 'minus' contextual variant. Series 3 may then be described as in complementary distribution with Series 2.

nominal class: 1 2 5 14 17

- oōna/ndyōna eēna/āna diiēna wuūna kuūna
  that (person) those that that (to) there

Series 4: 'this/these' to hand or under discussion, especially when description or elaboration is to follow. Series 4 contrasts with Series 2 and 3; it has no distinction of persons.

nominal class: 1 2 5 14 17

with IV: o-ōyu/o-ōyu o-ōwa e-ēdi o-ēwu o-ēku

without IV: oyū / oyū owā edī owū okū

this(person) these this this (to) here

(potple) (matter) (manner)

Series 5: 'that/those', with meanings as for Series 2 and 3. It is sparsely represented in the data, and appears to be in the process of being displaced by Series 2 and 3. The shape is similar to that of Series 4, with final vowel -ō throughout. All examples are from fixed phrases, and none occurs after peak. An instance for illustration:

Ukō vo It is there that (= it is said that, he said that, it was said that, etc.)
Series 6: 'this/that, these/those previously mentioned'. There is no distinction of persons in Classes 1 and 2.

nominal class 1 2 5 14 16
with IV e-ndyöoyó e-wóowó e-dyöodyó e-wóowó e-vóovó
without IV ndyöoyó wóowó dyöodyó wóowó vóovó
this, etc. these this this this
(person) (people) (matter) (manner) (place, time)

All have reversed final variants. The spelling is a convention; the phonetic realization would be more appropriately rendered as e-ndyöoyó, e-wóowó in a closer transcription.

Series 7: 'this/these' present or about to be described. There is no distinction of persons in Classes 1 and 2.

nominal class 1 2 5 14 16
with IV e-ndyöoyó e-wáayá e-dyáadí e-wáau e-váavá
without IV ndyöoyó wáayá dyáadí wáau váavá
this this this here (at)
(person) (people) (matter) (manner, time) (place, time)

As in Series 6, all forms have reversed final variant.

Series 8: 'that/those particular, very'. There is no distinction of persons in Classes 1 and 2. Class 1 has several variants stated by the informant to be obsolescent.

nominal class 1 2 5 14 17
with IV e-ndyööna e-áána e-dyáadiná e-wáusína e-kwáakína
without IV ndyööna áána dyáadiná wáusína kwáakína

that very those... that(matter) that(manner) there (to)

**Series 9**: possessive prefix attached to pronominal stem. There is
distinction of persons, but not of classes other than 1 and 2. Class 1
3rd person serves for all singular classes, and Class 2, 3rd person, for
all plural classes. Examples are given with Class 9 possessive prefix.

<table>
<thead>
<tr>
<th>class(stem)</th>
<th>1/1</th>
<th>1/2</th>
<th>1/3</th>
<th>2/1</th>
<th>2/2</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>with IV</td>
<td>6-yaame 6-yaaku 6-yaandi 6-yeeto 6-yeeno 6-yaau</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>without IV</td>
<td>yáame yáaku yándi yeeto yeeno yáu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(sg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(pl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the possessive prefix has the shape ya-/ye-, there is identity
of segmental structure, but not of tone-pattern, between this series
and Series 1, in Class 1, 3rd person and Class 2, all persons, e.g.

6-yaandi / yándi his (Series 9) cf. o-yándi / yándi he (Series 1)

**Series 10**: pronominal stem with ya-/ye- 'with' attached. This is the
substitution class of the Na unit, as described under 2.1.11.1., p. 91.
There are six members only, with one pattern for each.

<table>
<thead>
<tr>
<th>class (stem)</th>
<th>1/1</th>
<th>1/2</th>
<th>1/3</th>
<th>2/1</th>
<th>2/2</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>yaáme yaáku yaándi yeeto yeeno yaáu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(sg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(pl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is some similarity here to both Series 1 and 9. Segmentally
and tonally, Series 1, Class 1, 3rd person and Class 2, all persons, are
like Series 10 when the IV is absent from the former:

yaándi with him (Series 10) cf. yaándi he (Series 1, and o-yándi)
The similarity to Series 9 only occurs when the prefix of the latter is of
the shape ya-/ye-, but there is tonal distinction:

yaándi with him (Series 10) cf. yaándi his (Series 9, but 6-yaandi)
Series 11: this consists of a- and a class concord attached to
the interrogative stem -eyi? which? The series is, however, only
found stable, as a nucleus, and does not occur in the falling section
of a phrase after the peak. An example is given for illustration:

\[
\begin{align*}
A & \quad K \\
\text{ako} & \quad \text{wele?} & \text{it is where that you have been?} \\
\text{(where did you go? also where are you going?)}
\end{align*}
\]

Series 12: pronominal stems with kwa- attached. This series fills the
M slot only. There are only six members, whose distribution is shown
under 2.1.9. on p. 85. When these items occur in the falling section,
totally after the peak, their patterns are as follows:

<table>
<thead>
<tr>
<th>Nominal Class</th>
<th>1/1</th>
<th>1/2</th>
<th>1/3</th>
<th>2/1</th>
<th>2/2</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>kwaame</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kwaaku</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kwaandi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kweeto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kweeno</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kwaatu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The disposition of pronominal and selector patterns is similar to
that of other nominals. Where there is tonal variation, there is
associated morphological variation, the pattern with IV being distinct
from that of the form without IV. Some series have an undifferentiated
pattern for both forms, as do some nominals of other kinds. Some series
have only one morphological variant, hence, in the contexts to which
this chapter is limited, they have only one tone-pattern.

1. No. 13 in Appendix I shows an example of kwaandi, with peak pitch,
and accompanying notes.
3.3. **Tono-morphological variants**

The examination of nominal patterns began with items filling the Q+ and Q- slots, but later the range of contexts was widened to others, such as F+ and F-, where the presence/absence of Initial Vowel is obligatory. It was found that in all cases, where there is tonal variation, it can be correlated with the morphological variation.

It can also be demonstrated that, where a nominal is capable of filling more than one kind of slot, the tone/morphology correlation still holds good, when the same conditions obtain. For instance, the R/SC contains many items found also in the Q/SC, and like the latter, the R unit has plus and minus sub-divisions. A nominal functioning as R+ displays the same pattern as when it fills Q+:

A Q+  
`wakahang’ ekulu` he bandaged up the leg

A Qs R+  
wakaanga yë ekulu he bandaged it up the leg (cited p. 99)

`ekulu` 'the leg' has the same pattern in both slots, while its Q- variant is `ku-ulu`.

Similarly, the B/SC consists of nominals with IV attached; although there is no minus unit, its SC is co-extensive with that of the Q+ and R+ units, and nominals functioning as B have the same patterns as in the Q+ slot:

A B Q+  
`baivaanaang’ oaleéke onsswá` they gave the young people the permission  
(cited on p. 94)

A Q+  
cf. `balongaang’ oaleéke they used to teach the young people

`oaleéke`, whether as B or as Q+, has the same pattern, in contrast to the Q- variant pattern, alééké.
Conversely, a nominal capable of functioning as C as well as Q-will display the same pattern in both slots:

A ii C
kaƒwete kkalâ nttûmâmi  he must really be a biddable person

A ii Q-
basinga vvaáva nttûmâmi  they will require a biddable person

nttûmâmi (TCIy, with reversed final variant nttûmâmî) is not tonally distinguished, whether filling C or Q-, and this pattern contrasts with that of the Q+ variant, ënt-tumâmi.

Similarly, nominals in the post-nucleus V+ and V- slots respectively exhibit a parallel variation:

...ëffuku (in) the night, V+ cf. ...ffûku (at) night, V-

This may be compared with the Q+/Q- variants of ëf-fulu / f-fûlu 'flower', which belongs to the same TC.

It is therefore possible to free the labelling of the variants from dependence upon the slot labels, and to describe in terms of two tomo-morphological variants as follows:

**Variant 1 (Var.1)**: characterized by presence of the Initial Vowel

and a particular set of tone-patterns (which must be specified for each TC)

e.g.  ëf-fulu flower  ond-zámbi God

os-sevá to laugh  e-leéngê pumpkin

**Variant 2 (Var.2)**: characterized by absence of Initial Vowel

and a particular set of tone-patterns, specified for each TC:

e.g.  f-fûlu flower  nd-zámbi God

s-sevá to laugh  leéngê pumpkin

1. The term tomo-morphological implies that tonal variation entails morphological variation, and vice versa. It is used in preference to 'morphotonological', which has acquired a rather different meaning.
In the cases of certain TCs, and in all cases of augmented and pre-prefixed nominals, there is no tonal variation, but there is morphological variation. By analogy, then, the two variants are classed as tono-morphological variants: \textit{os-sevá} Var. 1, \textit{s-sevá} Var. 2 'to laugh'. Likewise:

\textit{ekí-mm-buta} Var. 1, \textit{ki-mm-buta} Var. 2 'age'

\textit{omú-nd-zo} Var. 1, \textit{mú-nd-zo} Var. 2 'in the house'

In some cases, however, the substitution class of a unit consists of nominals both with and without Initial Vowel, in free variation. Such for example is the Y(SC):

\begin{center}
\begin{tabular}{|l|l|}
\hline
\textbf{L} & \textbf{Y} \\
\hline
\textit{enlloongo myásadilaang' ákulu úeto} & (ö-kulu Var. 1, a-kulu Var. 2) \\
\textit{the remedies which used to use our ancestors} & \\
\hline
\textbf{L} & \textbf{ii} \\
\hline
\textit{Înthaangwa / yina yifwëte zziwëlwa ónkkaand' ambuändu} & \\
\textit{it is the time / that should be opened the book of the heart} & (ónk-kaanda Var. 1, nk-kaanda Var. 2)
\end{tabular}
\end{center}

The nominals functioning as Y display in all cases the patterns of Variant 1, but they do not necessarily have IV attached. It is not correct here to speak of a tono-morphological variation -- the variation is morphological only. Since the tonal character allies these nominals to Variant 1, they will be classified as a sub-division of the latter and termed

\textbf{Variant 1a (Var. 1a)}: characterized by presence/absence of Initial Vowel in free variation, but with the tone-patterns of Variant 1

\begin{center}
\begin{tabular}{|l|l|}
\hline
\textit{(o)á-kulu} & \textit{ancestors} \\
\hline
\textit{(e)nk-kaanda} & \textit{book}
\end{tabular}
\end{center}
3.3.1. **Syntactic unit and tono-morphological variant**

Once the variants have been described in this way, it is possible to state the relationship between variant and syntactic slot in terms of the slot's **requiring** a specific variant. The Q+ slot, for instance, can be said to require Variant 1, the C slot requires Variant 2, and the Y slot requires Variant 1a.

The substitution class (SC) of a unit is part of its definition, and in Chapter 2 the SCs were defined morphologically in two ways:

1. (i) presence/absence of Initial Vowel and (ii) if pre-prefix attached.

It can now be seen that these two features are of rather different kinds. The presence/absence of IV is part of the definition of the variant required by the slot, while the pre-prefix is not. Both variants are held to exist for pre-prefixed nominals, although there is in fact no tonal differentiation. Some SCs include both pre-prefixed and unpre-prefixed nominals -- but still require one specific variant only. V+ and V-, for instance, when occurring in post-nucleus position, include in their SCs nominals pre-prefixed by Class 18 BIP, as well as nominals without pre-prefix. V+ includes both omifu 'in the night' and effuku 'the night'; V- includes müffuku 'in (by) night' as well as ifuku '(at) night'. V+ however requires Variant 1 only, and V- requires Variant 2 only. The fact that the actual tone-patterns are undifferentiated in the case of the pre-prefixed nominals is irrelevant.

When defining the SC of a unit, both characteristics require to be stated, but since they are of different orders, I propose to state the

---

1. In Chapter 2 'pre-prefix' includes ye-/yo- 'and, with', iwa- 'by, to etc.' and the stabilizing pre-prefixes such as i- and se-; in the present chapter, discussion is limited to pre-prefixes which are **not** phrase-initial.
characteristic in respect of pre-prefix by means of substitution
class sets, from which the SCs draw their members, and each of which
is further sub-divided into variants, as follows:

Set i : nominals without augment/pre-prefix

Variant 1 : has Initial Vowel
           Example
           omá-vata  villages

Variant 1a : has IV/no IV in free variation
             (o)má-vata  "

Variant 2 : has no IV
            ma-váta  "

Set ii : nominals with augment and/or pre-prefix

Variant 1 : has Initial Vowel
           Example
           omu-má-vata  in the villages

Variant 1a : has IV/no IV in free variation
             (o)mu-má-vata  "

Variant 2 : has no IV
            mu-má-vata  "

The SC of a unit can then be defined as (a) consisting of nominals
of a particular set or sets and (b) requiring a specific variant of the
set/s. Note that SCs consisting of, or containing, full nominals
never draw from Set i only, since they always include augmented stems,
included in Set ii; e.g. the Q+/SC includes ezí-nd-zo 'houses' with augment,
as well as énd-zo 'houses'.

The variants required by non-initial units, and the sets from which
their SCs are drawn, are set out in Table II. M and Na, however, have
been omitted. Their SCs are limited and do not include full
nominals; moreover, they show no morphological variation, being unable
to take IV. They cannot be described in the same way.
TABLE II

Non-initial nominals after peak : correlation of syntactic unit and (full) nominal variant.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Variant required</th>
<th>SC drawn from set/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>F+</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>F-</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>Pa</td>
<td>la</td>
<td>i and ii</td>
</tr>
<tr>
<td>Q+</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>Q-</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>R+</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>R-</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>S+*</td>
<td>1</td>
<td>ii</td>
</tr>
<tr>
<td>S-*</td>
<td>2</td>
<td>ii</td>
</tr>
<tr>
<td>T*</td>
<td>2</td>
<td>ii</td>
</tr>
<tr>
<td>V+*</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>V-*</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>Y</td>
<td>la</td>
<td>i and ii</td>
</tr>
</tbody>
</table>

* in post-nucleus position

The table is equally valid for pronominals in respect of the variant required by the unit.
3.3.2. Post-peak items in nominal sequences

Nominal sequences are of several kinds.

There are firstly the unitary nominal groups briefly described (1) in Chapter 1, and of which more will be said shortly.

Secondly, there are Class 15 INVs with following sub-units headed by a nominal, e.g.

\[
F^+ Q^+ \\
\text{isinga llešnd' óssuumb' éyyuunga} \quad \text{I shall be able to buy the rain-coat}
\]

Finally, there are nominals which do not form part of a single unit, but which happen to be juxtaposed:

\[
B^+ Q^+ \\
\text{bávaanaang' oáleške eláu} \quad \text{they used to give the young people the chance}
\]

Sequences of the second and third kind have been described, in so far as the individual items composing them are concerned. There are however some cases in which the pattern predicted by the description may be realized in a slightly different way.

3.3.2.1. Elision

When an item begins with a vowel, the final vowel of the preceding item may be omitted, or elided, as described under 1.8.1., p. 57.

The vowel following the omission is termed the eliding vowel; the omitted vowel is called the elided vowel. Both elided and eliding vowel may, of course, bear low or high tone.

Where both elided and eliding vowel have low tone, the low tone of the elided vowel is simply omitted:

\[
F^+ Q^+ \\
\text{...éssoong' edyóódyo} \quad \text{to show this (éssoonga + edyóódyo)}
\]

1. 1.7.1., pp. 52-54.
If the elided vowel has low tone, and the eliding vowel high tone, the low tone of the elided vowel is again omitted:

\[ T \quad Q^+ \]

...mulluúnd' ēnkkaanda in keeping the skins (mulluúnda + ēnkkaanda)

If however the elided vowel has high tone, and the eliding vowel low tone, the high tone is realized on the eliding vowel. This is termed transference:

\[ F^+ \quad S^+ \]

...okkot' ōmúndzo to enter into the house (okkotá + omúndzo)

Finally, if both elided and eliding vowel have high tone, the high tone of the elided vowel is shifted to the preceding vowel:

\[ F^+ \quad Q^+ \]

...onntā ēnkkaanda to carry the book (onntá + ēnkkaanda)

The realization of the basic pattern of the variant may thus be distorted, in cases of transference or shift.

3.3.2.2. Unitary nominal groups

The members of a unitary nominal groups, other than the first, have not been covered by the description yet, since their position in the group has not been described in terms of syntactic slots. It is however possible to define the substitution classes in terms similar to those used for unit heads.

a) chain groups.

Non-initial members of a chain group are from Set (i) only; they are pronominals, without pre-prefix. The variant required is la:

\[ Q^+ \quad i i \]

...emāaza móómo and ...emāaz' emóómo these waters

1. There are special rules of elision for eʔ, the question marker, see 5.1. below, p. 229.
b) possessive complexes.

Non-initial members of a possessive complex are from Set (i) — pronominal stem with dependent prefix attached — and from Set (ii) — independent nomin with dependent pre-prefix attached. The variant required is Variant 2 (no Initial Vowel).

S-\_\_ii
...muvata dy\_\_andi in his village (cf. é-dyaandi Var. 1)

Q+\_\_ii
...edyam\_\_bu dy\_\_ankhuumbu the matter of the name

c) appositional groups.

Non-initial members are from both sets, and the variant required is Variant 1a(1):

Pa\_\_ii K
yin\_\_i oy\_\_andi ómpfumu kay\_\_ndaanga that which he the chief used to go

(Pa\_\_ii K
min\_\_i oy\_\_andi on\_\_kiti kase\_\_nda those which he the trader will go

(cf. on\_\_kiti Var. 1, on\_\_kiti Var. 2\(^2\))

The pattern of the variant may, as in other cases, be distorted by elision:

L elided + L eliding: ...\_\_n\_\_dz\_\_ eyá\_\_yi this world (\_\_ndz\_\_ + eyá\_\_yi)

L elided + H eliding: ...dyá\_\_mba(e) ámph\_\_eena of the responsibility of

greatness (of great responsibility)

H elided + L eliding (transference): ...zam\_\_phi\_\_l\_\_ eyá\_\_yi of this kind

(zam\_\_phi\_\_l\_\_ + eyá\_\_yi)

H elided and H eliding (shift): ...emph\_\_l\_\_wete the kind of beauty

(emph\_\_l\_\_ + wete)

1. There is a marked preference for use of the IV with nominals of TCI and its sub-divisions, where there is no prefixal vowel. Other nominals appear mostly without IV.

2. There is no tonal differentiation of variants in this item.
3.4. **Summary**

Marked and unmarked pitches of the falling sections of peaked phrases are interpreted in terms of a tonal system of high and low tones.

Nominals occurring totally after the peak are assorted into five tone-classes, one with sub-divisions for longer stems. The concept of two the TC however appears to be of limited utility, and not all nominals are assigned to TCs. Nominals display a maximum of two tonal variants, correlated with the obligatory presence/absence of Initial Vowel. Where the feature of IV is in free variation, only one of these patterns is shown, and is that associated with the presence of IV. Two tono-morphological variants are accordingly set up for each nominal. Some nominals, including all those with stem augment and/or pre-prefix capable of taking IV, display no more than one pattern, but the morphological variation of presence/absence of IV is regarded as justification for setting up two variants for these also.

The tono-morphological variant is described as determined by the syntactic slot the item heads, or by its place in a unitary group, if it is not the unit head. Each unit SC is defined in terms of, firstly, the prefixal characteristics and secondly, the variant required. Non-initial members of unitary groups are described by the same method of substitution class definition.

Elision results in distortion of the tone-patterns in some cases.
Chapter 4

Phrase-initial nominals and nominal sequences

4.0. Rising section, peakless phrase and peak pitch in the tonal system

In order further to pursue the examination of nominal patterns, it is necessary to go beyond the limits set at the beginning of the previous chapter, and approach nominals which appear either partially or wholly in the rising section, those which contain peak pitch, whether on the first vowel or not, and those which occur in peakless phrases.

One is now faced with a choice, either to describe all the pitch phenomena in terms of a tonal system, or to try another path. It may be added that already two levels or aspects of an apparent tonal system have been proposed: phrasing and tonal distinction. The term 'tonal' has however only been applied to segments of speech from and including the peak pitch to the end of a phrase. Is it now satisfactory to describe peakless phrases and rising sections of peaked phrases as tonal?

Unless a third dimension is to be added to an already complicated description, I see no alternative but to incorporate the pitches of both peakless phrases and rising sections into the tonal system. The latter has already two terms: high tone (marked pitch) and low tone (unmarked pitch). The pitches of the rising section, and those of the peakless phrase, are also unmarked, but in order to classify them as low tones, the definition as previously given must be
changed, from

'low tone (L) = any unmarked pitch after the peak' (3.1, p. 128) to 'low tone (L) = any unmarked pitch'

However, unmarked pitches were defined in 1.2.1. (p. 25) as

i) nonfinal pitches after which there is no immediate drop in pitch, and

ii) final pitches which begin at base pitch. It will be seen that

the new entrants to the class of low tones do not require any special

provision in the definition; they are covered by it already. The

(i) definition applies to pitches in the rising section and non-final

pitches of the peakless phrase, while (ii) applies to the final pitch of

a peakless phrase.

It is now possible to describe tonetically all the pitch patterns

of the language. It will be obvious that, in peaked phrases, the peak

pitch is by definition the first high tone of the phrase. If one

compares the patterns of non-initial nominals, filling identically

labelled slots, but in one case including the peak and the other not,

it will be seen that there is considerable agreement:

A ii Q-

osinga ssálu ssálu he is going to do some work

A

wasala ssálu he did some work (ssálu Var.2)

ssálu and ssálu each fill a Q- slot, and the patterns can both be

described in terms of the same distribution of H and L. Cf. also

the Q+ items in:

(G: A Q+)

....vô / wàmon' ünkkeénto that / you saw the woman

(G: A Q+)

....vô / wàmon' ünkkeénto that / you should see the woman

(ünkkeénto Var.1)
önkkeęntō and önkkeęntō are again describable in the same terms, although one contains the peak and the other does not.

It would seem that the correlation of variant and syntactic slot is maintained in these cases, even when the item contains peak pitch. The same cannot however be said of the following:

- (G: A Q-) ...
vó / wamona nkkeęntō that / you saw a woman
- (G: A Q-) avó / wamona nkkeęntō if / you should see a woman (cf. nkkeęntō Var. 2)

The Q- items here cannot be described in the same terms; only the first, nkkeęntō, is recognizable as having Variant 2 pattern (neither pattern resembles Variant 1, önkkeęntō). Both fill a slot labelled Q-, and the structures in which they occur seem comparable in other respects also. Furthermore, both items are not only non-initial, but are also final in the phrase.

The problem here is that of the position of the peak: the fact that it does not appear at the same point in apparently comparable structures. Moreover, there is an associated problem, in that an item containing peak is not always recognizable as having the pattern of one of the two variants established for it from other contexts.

Even more problematical is the fact that apparently identical structures, seemingly consisting of the same items, may show different placing of the peak:
A ii asadisi ammbote they are good helpers (lit. helpers of goodness) (1)

Where the item is both phrase-initial and phrase-final, i.e. occupies the whole of a phrase, there are no such problems. The item displays only one pattern when filling a particular slot, e.g.

A ammbote they are good (lit. of goodness)

although there is in some cases a 'reversed final' free variation, where the nominal belongs to a tone-class showing variation in other contexts:

A ammbote or A asadisi they are helpers

cf. asádisi or asádisí Variant 2

The patterns of the asadisi ammbote pair are not, however, in free variation.

Attention will be directed at first to nominals which form a complete phrase in themselves, since these present fewer problems.

4.1. Phrase-initial nominals occupying entire phrase

These are limited to nominals heading a slot where the first item requires phrase-initial position. It is often found

1. I hope I may be permitted this small piece of chicanery. The glosses are correct — as far as they go — but the two sentences are not in fact identical. The difference is of a kind which cannot easily be rendered in English. Observations on the translation of such pairs are given on pp. 221-3 below. See also App. III, fourth from last example on p. 2. Other phrase-initial items are always followed by at least one other in the phrase. See e.g. p. 122 above, third paragraph.
that the SC of such a unit is co-extensive with that of one or more units not requiring phrase-initial position, when the SCs of each are morphologically (but not tonally) defined. For example, the A and Q-units have largely co-extensive SCs; their heads may consist of nominals and pronominals without IV. The A head is initial, but the Q-head is not always so. A single-item Q-unit is never initial unless unlinked.

Sometimes sub-divisions of the same label may show different phrasing characteristics, while they share the same SC. P and P* as primary units are always phrase-initial; Pa, the sub-unit defined in relation to K, is always non-initial. Both have the same morphologically defined SC, consisting of nominals with or without IV in free variation. The Y/SC consists of the same items, but again is a non-initial unit when consisting of a single item.

Note again that the SCs are only said to be co-extensive in respect of their morphology; nothing has yet been said of tone. It has however been shown that morphological character entails tonal character; each morphological variant has a specific tonal variation, even though in some cases there is no differentiation. Moreover, it has also been shown that specific non-initial units require to be headed by specific tono-morphological variants.

Phrase-initial nominals do not, however, always display the same patterns as non-initial ones, even when the morphology is comparable. The slot filled by each may have a co-extensive SC, but if one is phrase-initial and the other not, the patterns may

1. For unlinked units, see first paragraph on p. 80.
be quite different. Compare for instance the Y and P heads in the following:

\[ \begin{array}{ccc}
L & Y & \kina\ k\kif\tu\waang'\ \em\mboongo \quad \text{that which is paid at the money} \\
\text{P} & \ii & K & A \\
\em\mboongo & z\text{ina }b\text{\'{a}taambulaanga} & \text{z\'{a}kalaanga} & \\
\text{the money} & / & \text{that which they used to receive} & / \text{was}
\end{array} \]

\em\mboongo filling the Y slot has a high tone; \em\mboongo heading the P slot does not.

Similarly the pre- and post-nucleus V+ units in the next pair:

\[ \begin{array}{ccc}
A & V+ & \text{\textit{dyassivi }k\text{\'{i}kilu }\text{\textit{\'{e}wu\text{\'{u}nu}}} \\
\text{today} & A & \ii & \text{Na} \\
\text{\textit{\'{e}wu\text{\'{u}nu}} & / & \text{tusinga }m\text{\'{m}\'{o}naana }y\text{\'{a}ndi} \quad \text{today} & / & \text{we shall see (together with) him}
\end{array} \]

Post-nucleus V+ is filled by \textit{\'{e}wu\text{\'{u}nu}}, with two high tones; pre-nucleus V+ has \textit{\'{e}wu\text{\'{u}nu}}, with only one high tone.

Nor are the new patterns of the nominals in the P and V+ slots at all similar to those of Variant 2:

\begin{center}
\begin{tabular}{ccc}
P/V+ pattern & Variant 1 & Variant 2 \\
money & \em\mboongo & \em\mboongo & \textit{\textbf{mmb\'{o}ng\'{o}}} \\
today & \textit{\'{e}wu\text{\'{u}nu}} & \textit{\'{e}wu\text{\'{u}nu}},...\textit{\'{u}nu} & \textit{\'{u}nu},...\textit{\'{u}nu}
\end{tabular}
\end{center}

Compare also the Q-item and the A head in the following:

\[ \begin{array}{ccc}
P & \ii & iA \\
\textit{etima }dy\text{\'{a}u} & / & \textit{idyavvaan\'{u} }\textit{lus\'{a}dis\'{u} } \quad \text{their intention } / \text{is to give help} \\
\text{A} & \ii & K & R+ \\
\textit{lus\'{a}dis\'{u}} & / & \textit{luna }b\text{\'{a}vwaang' }\textit{\'{e}m\'{f\'{u}nu} } \quad \text{it is help } / \text{that (of) which they} \\
\text{had the need}
\end{array} \]

\textit{lus\'{a}dis\'{u} Var. 2}
In the next pair, however, there is more resemblance:

A

ssālu  it is work

A  ii  Q-

isinga ssāla ssālu  I am going to do some work  (ssālu Var. 2)

ssālu (A) differs from ssālu (Q-) only in having the high tone at peak pitch.

Again, there is no similarity between the new pattern and Variant 1:

<table>
<thead>
<tr>
<th>A pattern</th>
<th>Variant 2</th>
<th>Variant 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>help</td>
<td>lusadisū</td>
<td>lusadisū, ...isū</td>
</tr>
<tr>
<td>work</td>
<td>ssālu</td>
<td>ssālu</td>
</tr>
</tbody>
</table>

It appears then that there are two new sets of patterns, and one could, of course, merely list them and leave the description there. Nevertheless, it can be shown that each of the new pattern sets is regularly relatable to one of the tomo-morphological variants, although the relationship is not statable in the same way for each. It therefore seems worthwhile to show this fact in the description.

4.1.1. Modification of Variant 1 (Rule 1)

Phrase-initial nominals filling a slot characterized by an SC with morphological similarity to that of a non-initial unit requiring Variant 1, show a pattern of correspondence which may be described as follows:
a) if Variant 1 has one high tone, the phrase-initial pattern has none:

<table>
<thead>
<tr>
<th>Phrase-initial</th>
<th>Variant 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>money, goods</td>
<td>émmboongo</td>
</tr>
<tr>
<td>villages</td>
<td>omávata</td>
</tr>
<tr>
<td>truth</td>
<td>ellúdi</td>
</tr>
<tr>
<td>tomorrow, outside</td>
<td>emmbazí</td>
</tr>
<tr>
<td>planks</td>
<td>omabayá</td>
</tr>
<tr>
<td>people</td>
<td>owaántu</td>
</tr>
<tr>
<td>pupil</td>
<td>onnlongóki</td>
</tr>
<tr>
<td>face</td>
<td>olóse</td>
</tr>
<tr>
<td>he</td>
<td>oyáandi</td>
</tr>
<tr>
<td>difference</td>
<td>ántswaaásaání</td>
</tr>
</tbody>
</table>

The position of the high tone in Variant 1 is indicated by subscript dot in the phrase-initial pattern.

b) if Variant 1 contains two high tones, the phrase-initial pattern shows only one, at a point corresponding to that of the second high tone of the Variant 1 pattern:

<table>
<thead>
<tr>
<th>Phrase-initial</th>
<th>Variant 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>today</td>
<td>éwuúnu</td>
</tr>
<tr>
<td>to wait for</td>
<td>óvviingíla</td>
</tr>
<tr>
<td>help</td>
<td>olúsadísu</td>
</tr>
<tr>
<td>nursing mother</td>
<td>omwálakázi</td>
</tr>
</tbody>
</table>

(reversed final free variants in both cases)
Both can be described as showing the first high tone 'missing' as compared with the Variant 1 pattern. This suggests a means of description in terms of a basic high tone potential, fully realized in Variant 1, but only partially, or not at all, in the phrase-initial pattern. This can be stated as a realization rule for each:

'full realization of high tone potential in Variant 1'

but

'first potential high tone unrealized in phrase-initial position'

Note that, from the purely tonal point of view, the initial pattern could be related in similar terms to the Variant 2 pattern set as well, but the relationship is regarded as between the Variant 1 and initial patterns, because of the morphological similarity. Variant 1 has Initial Vowel, Variant 2 does not, and the phrase-initial patterns under discussion are those of nominals with IV. The basic variant is regarded as tono-morphological, not simply tonal.

This is a generative approach, requiring that a basic variant be set up at a structural (or, more properly, constructional) level below that of the tones. This approach is sometimes termed morphotonological, but to avoid confusion with the term tono-morphological, which relates to shape as well as to tone, it is not used here.

It will be found, in the next section, that this realization is not the only kind to be constructed; it is therefore called 'realization rule 1' or, more simply, Rule 1. To emphasize the fact that realizations under Rule 1 are related to the full realizations of Variant 1, I have sometimes used the term
used the term *initial modification of Variant 1*.

Rule 1 — the non-realization of the first potential high tone — operates on Variant 1a as well as on Variant 1:

\[
P \quad \text{ia} \quad \text{yi}\text{qandi} / \text{Imvvaangi} \quad \text{He} / \text{is the creator}
\]

\[
P \quad \text{ia} \quad \text{ii} \quad \text{cf. oyi}\text{qandi} / \text{ingudi} \text{Xnkhi} \text{azi} \quad \text{he} / \text{is the maternal uncle}
\]

In all cases where a unit i) has an SC consisting of nominals with IV, or with/without IV in free variation and ii) requires phrase-initial position for the head, the patterns can always be described in terms of an initial modification of Variant 1 by Rule 1. That is, Rule 1 operates only on Variant 1 (including 1a), and Variant 1 is modified only by Rule 1. The Rule 1 modification can therefore be described as a cunftion of Variant 1 in phrase-initial position.

Units requiring Variant 1 or 1a, and phrase-initial position for the head are: H, P (including P* but not Pα), unlinked Q+, pre-nucleus S+ and pre-nucleus V+. Some of these are illustrated below:

\[
P \quad \text{ii} \quad \text{K} \quad \text{A}
\]

\[
P: \quad \text{emboongo} / \text{zina} \text{b} \text{taambulaanga} / \text{z} \text{kalaanga}
\]

the money / that which they used to receive / was

\[
P* \quad \text{A} \quad \text{K}
\]

\[
P*: \quad \text{engudi} / \text{ll} \text{kwa kaveeno}
\]

the mother / it is something that she has been given

(the mother has been given something)

\[
V+ \quad \text{A} \quad \text{X} \quad \text{K}
\]

\[
V+: \quad \text{emmbazi} / \text{mmbunguluulu} \text{k} \text{ikilu} \text{i} \text{isikam} \text{a}
\]

tomorrow / it is very early that I shall get up
Rule 1 -- the non-realization
### 4.1.2. Modification of Variant 2 (Rule 2)

Where the SC of a unit requiring phrase-initial position for the head is composed of nominals displaying morphological similarity to Variant 2, the phrase-initial patterns can be related to those of Variant 2. The correspondence is however rather different from the previous type.

Illustrations are limited to demonstrable Variant 2 patterns; there are instances of non-initial nominals showing slightly different patterns, as exemplified under 4.0. on p.174 above. The same limitation as before is observed for the phrase-initial nominals; they must occupy the whole phrase.

a) when Variant 2 contains only one high tone, there is peak pitch at the corresponding point in the phrase-initial pattern:

<table>
<thead>
<tr>
<th></th>
<th>Phrase-initial</th>
<th>Variant 2</th>
<th>cf. Variant 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>money, goods</td>
<td>mmbōôngo</td>
<td>mmbōôngo</td>
<td>(ēmboōongo)</td>
</tr>
<tr>
<td>villages</td>
<td>mavāta</td>
<td>mavāta</td>
<td>(omāvata)</td>
</tr>
<tr>
<td>truth</td>
<td>llūdi</td>
<td>llūdi</td>
<td>(ellūdi)</td>
</tr>
<tr>
<td>tomorrow, outside</td>
<td>mmbazī</td>
<td>mmbazī</td>
<td>(emmbazī)</td>
</tr>
<tr>
<td>planks</td>
<td>mabayā</td>
<td>mabayā</td>
<td>(omabayā)</td>
</tr>
<tr>
<td>people</td>
<td>waantu</td>
<td>waantu</td>
<td>(owaantu)</td>
</tr>
<tr>
<td>pupil</td>
<td>nnlongōki</td>
<td>nnlongōki</td>
<td>(onnlōngōki)</td>
</tr>
<tr>
<td>face</td>
<td>losē</td>
<td>losē</td>
<td>(olōse)</td>
</tr>
<tr>
<td>he</td>
<td>yaândi</td>
<td>yaândi</td>
<td>(cyândi)</td>
</tr>
<tr>
<td>difference</td>
<td>ntswāswaani</td>
<td>ntswāswaani</td>
<td>(ēntswaaswaani)</td>
</tr>
</tbody>
</table>

Variant 1 patterns are shown in brackets for comparison.
b) when however the Variant 2 pattern contains two high tones, only the second is paralleled in the phrase-initial pattern. The position of the first high tone in the corresponding Variant 2 pattern is again indicated by means of subscript dot in the phrase-initial item:

<table>
<thead>
<tr>
<th>Phrase-initial</th>
<th>Variant 2</th>
<th>cf. Variant 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>today</td>
<td>wù́̀nu</td>
<td>wù́̀nu (òwù́̀nu)</td>
</tr>
<tr>
<td>to wait for</td>
<td>vvíingìla</td>
<td>vvíingìla (òvviingìla)</td>
</tr>
<tr>
<td>help</td>
<td>lusádísu</td>
<td>lusádísu (òlusádísu)</td>
</tr>
<tr>
<td>nursing mother</td>
<td>mwalakázi</td>
<td>mwalakázi (ómwalakázi)</td>
</tr>
</tbody>
</table>

(reversed final free variants in all cases)

The phrase-initial patterns in (a) show an exact correspondence with those of Variant 2; those in (b) can be described in terms of 'first potential high tone unrealized', as under Rule 1. In sum, the position is

'first high tone realized if it is the only one in the item'

but

'only the second high tone realized when there are two in the basic pattern'

Variant 2 is regarded as showing full realization of high tone potential.

The two statements concerning the initial pattern can be reduced to one:

'second/only potential high tone realized'

which constitutes a second initial realization or modification rule, This will be termed Rule 2.
Rule 2 modifies only Variant 2, and Variant 2 is, on the data so far presented, modified only by Rule 2. Rule 2 can therefore be said to be a function of Variant 2 in phrase-initial position.

Units requiring Variant 2 in phrase-initial position are: A unlinked Q-, and pre-nucleus S-, T and V-.

1. More precisely, the sub-division of the A/SC consisting of stable nominals, i.e., those without stabilizing pre-prefix. For the stable/stabilized distinction, see 2.1.1., p. 59 above.
4.1.3. Nominals with morphologically invariable pre-prefixes

Morphologically invariable pre-prefixes are those for which there is no corresponding form with Initial Vowel. Nominals with these attached require a slightly different approach. They are found only in phrase-initial position, since the pre-prefixes characterize units which are always phrase-initial. The set of these pre-prefixes is

<table>
<thead>
<tr>
<th>Heads unit</th>
<th>E and N(1)</th>
<th>J(1)</th>
<th>iA</th>
<th>iA</th>
<th>iA(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ye-/yo-</td>
<td>and, with</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kwa-</td>
<td>by, for, to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i-</td>
<td>it is/they are</td>
<td>iA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>se-</td>
<td>it is/they are</td>
<td>iA</td>
<td>now/then</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tu-, etc.</td>
<td>we are, etc.</td>
<td>iA(2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since nominals with these are always phrase-initial, there is nothing with which they are strictly comparable in non-initial items. However, the pre-prefixes resemble the morphologically variable extra prefixes of the nominal class system, in that they are attached to full nominals. Further, when such nominals occupy an entire phrase, there is never any variation, other than the reversed final, in their patterns; and the patterns always display at least one high tone:

yomâvata and/with the villages (E or N)
kwayándi to him (J)
senndûmba she's a young lady now
ilukwikîlâ, ...ilû it is the belief

1. ye- heading Na, and kwa- heading M, are attached to stems and are not, therefore, classified as pre-prefixes.
2. tu- represents a series with members in all persons and classes.
The argument by which it is concluded that the concept of initial modification applies also to nominals with morphologically invariable pre-prefixes depends upon the acceptance of the previous description of phrase-initial tone-patterns; in particular, that part of the description which states that each initial modification, 1 or 2, applies to one variant only.\(^{(1)}\)

Firstly, there is a close resemblance between the patterns of (a) nominals with morphologically invariable pre-prefixes and (b) nominals with morphologically variable prefixes showing initial modification of Variant 2 under Rule 2. There is, on the other hand, much less resemblance between nominals under (a) and (c) nominals with morphologically variable prefixes showing initial modification of Variant 1 under Rule 1. Under (b) and (c) are included nominals with augment, as well as extra prefixes.

(a) with morphologically invariable pre-prefix  
(b) modified Var. 2  
(c) modified Var. 1

<table>
<thead>
<tr>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>yomāvata</td>
<td>mumāvata</td>
<td>(o)mumāvata</td>
</tr>
<tr>
<td>and/with villages</td>
<td>in the villages</td>
<td>in the villages</td>
</tr>
<tr>
<td>sewaāntu</td>
<td>dyēwaāntu</td>
<td>(e)dyawāntu</td>
</tr>
<tr>
<td>they are now people</td>
<td>of the people</td>
<td>of the people</td>
</tr>
<tr>
<td>ilukwiikīlulu</td>
<td>dyalukwiikīlulu</td>
<td>(e)dyālukwiikīlulu</td>
</tr>
<tr>
<td>it is the belief</td>
<td>of the belief</td>
<td>of the belief</td>
</tr>
<tr>
<td>kwankksentə</td>
<td>kīnkksentə</td>
<td>(e)kīnkksentə</td>
</tr>
<tr>
<td>to a woman</td>
<td>womanhood</td>
<td>womanhood</td>
</tr>
</tbody>
</table>

1. 'Rule 1 operates only on Variant 1 (including 1a)', p. 181 above.

2. 'Rule 2 modifies only Variant 2', p. 184 above.
The pattern of correspondence is such that (a) always agrees with (b), but only agrees with (c) when (b) and (c) are alike. The (b) patterns are those of modified Variant 2. There is therefore strong support for classifying the pattern set of the nominals with morphologically invariable pre-prefix in the same way as that of the (b) set — as Variant 2, modified by Rule 2.

Secondly, the (a') set always displays at least one high tone. This is typical of Rule 2 modification, but not of Rule 1. Under Rule 2, at least one potential high tone is always realized; under Rule 1, the first potential high tone is never realized, leading to patterns without any high tones, as in column (c).

Thirdly, Rule 2 does not modify Variant 1. Taken together with the fact that the morphological similarity is to Variant 2 rather than to Variant 1, one concludes that the modification here is operating on a basic tonal structure which is identical with that of Variant 2 of nominals with morphologically variable prefixes, and/or augment prefixes.

On these grounds, therefore, the nominals with morphologically invariable pre-prefixes are described as
1) having a basic pattern identical with that of the Variant 2 of the corresponding nominals with morphologically variable prefixes, and
2) subject to modification under Rule 2.

In this way the statement, that the operation of an initial modification rule is specific to one tono-morphological variant, is maintained without amendment. The initial modification can still be regarded as a function of a specific variant in phrase-initial position.
4.1.4. Initial modification and syntax

The relationship between initial modification and syntax is best described as indirect rather than direct. The modification is regarded as specific to the tono-morphological variant, and the variant is required by the syntactic slot the nominal is to fill. The modification occurs because the item is phrase-initial, and the phrasing likewise is dictated by the syntactic slot the nominal is to head.

For instance, the A and P units:

If the slot is to be headed by (o)muuntu 'person':

\[\text{Var. 2 } \mu\text{mntú} \rightarrow \text{Rule 2 } \mu\text{ntū} \leftarrow \text{phrase-initial} \]

\[\text{Var. la (o)muuntu} \rightarrow \text{Rule 1 (o)muuntu} \leftarrow \text{phrase-initial} \]
The one difficulty of description concerns the nominals with morphologically invariable prefixes. They are described as having the basic pattern and modification proper to Variant 2, but there are no occurrences of the fully realized variant, nor is there a corresponding 'Variant 1'. They do not, therefore, fit into the description of the sets from which the SCs are drawn, and a third set must be created to hold them. This in turn entails re-definition of the existing second set (1).

In order to maintain the relationship as stated between variant and modification, the new set will be described as 'having Variant 2', with a gap for Variant 1, rather than as having an undifferentiated variant.

The sets are now arranged as follows:

Set (i) : Nominals without augment or pre-prefix.

Variant 1 : has Initial Vowel  \( \text{(omá-vata villages)} \)
Variant 1a : has IV/no IV in free variation  \( \text{((o)ma-vata)} \)
Variant 2 : has no IV  \( \text{(ma-váta)} \)

Set (ii) : Nominals with augment and/or morphologically variable pre-prefix, but not invariable pre-prefix.

Variant 1 : has Initial Vowel  \( \text{(omu-má-vata in the villages)} \)
Variant 1a : has IV/no IV in free variation  \( \text{((o)mu-má-vata)} \)
Variant 2 : has no IV  \( \text{(mu-má-vata)} \)

Set (iii) : Nominals with morphologically invariable pre-prefix.

Variant 1 : none
Variant 2 : no Initial Vowel  \( \text{(i-má-vata they are the villages)} \)

1. See 3.3.1., p.166. 'Set (ii) : Nominals with augment/pre-prefix.'

The type of pre-prefix was unspecified at this stage.
The Variants are tono-morphological, but the actual patterns must be specified for each tone-class. The listing above shows an example of TCI as a member of the various sets. A general statement can be made concerning the pattern set for any one item: in respect of number of potential high tones, all variants have the same number, and in respect of position of potential high tones, only Set (i) Var. 2 ever shows a difference from the others (and even then, not in some TCs). This means that, given both variants of Set (i), all other patterns can be predicted.

Units requiring phrase-initial position for the head draw the members of their SCs from the sets as follows:

Sets (i) and (ii) : A (not iA), H, P (not Pa), Q unlinked, pre-nucleus V
Set (ii) only : pre-nucleus S and T (excluding pronominals)
Set (iii) only : iA, E, J, N

In Table III are set out the variant required by each phrase-initial unit, and the set of its SC. Note that Set (iii) includes nominals which have augment and/or extra prefix such as mu- in addition to a pre-prefix of the invariable type:

1-mu-má-vata (→ imumávata) it is in the villages
ye-kí-mm-buta (→ yekilmbuta) and (old) age

The slot the nominal is to fill dictates the phrasing and the variant; the phrasing dictates whether or not there is to be initial modification, and the variant is modified according to its specific

1. The patterns of an augmented stem cannot, however, be predicted unless there is a cognate unaugmented nominal in Set (i), e.g.
(ó)mm-buta 'adult', (e)kí-mm-buta 'adulthood, (old) age'.
Table III

Phrase-initial units: tono-morphological variant and pattern set/s of SC

<table>
<thead>
<tr>
<th>Unit</th>
<th>Variant required</th>
<th>Pattern set/s of SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>iA</td>
<td>2</td>
<td>iii</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>iii</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>J</td>
<td>2</td>
<td>iii</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>iii</td>
</tr>
<tr>
<td>P (not Pa)</td>
<td>la</td>
<td>i and ii</td>
</tr>
<tr>
<td>Q+ unlinked</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>Q- unlinked</td>
<td>2</td>
<td>i and ii</td>
</tr>
<tr>
<td>S+ pre-nucleus</td>
<td>1</td>
<td>ii</td>
</tr>
<tr>
<td>S- pre-nucleus</td>
<td>2</td>
<td>ii</td>
</tr>
<tr>
<td>T pre-nucleus</td>
<td>2</td>
<td>ii</td>
</tr>
<tr>
<td>V+ pre-nucleus</td>
<td>1</td>
<td>i and ii</td>
</tr>
<tr>
<td>V- pre-nucleus</td>
<td>2</td>
<td>i and ii</td>
</tr>
</tbody>
</table>

As in Table II, the 'Variant required' column applies to full nominals and pronominals alike; units requiring Set (ii) however include pronominals not included in the definition of the set.
rule. The scatter of possible patterns then depends on the set of the SC, which is part of the definition of the unit.

4.2. Phrase-initial sequences of nominals

Nominals have now been described in two contexts: that of non-initial item after the peak, and that of phrase-initial item occupying the whole phrase. The data from these contexts has proved amenable to description in terms of

a) two basic tono-morphological variants
b) two phrase-initial realization rules, or modifications, each specific to one of the two basic variants.

The variants must be listed for each tone-class of nominals.

The modifications are

Rule 1: first potential high tone unrealized (specific to Variant 1 and 1a).
Rule 2: second/only potential high tone realized (specific to Variant 2).

It now is to be seen whether or not these techniques are adequate for the description of phrase-initial nominals not occupying the whole phrase. A subsidiary aim is to see how far the investigation of these nominals contributes to the description of non-initial nominals which either contain the peak, or occur before it.

In some cases it appears that the terms of description so far developed are adequate for treating phrase-initial nominals which are not also phrase-final (4.2.1.); in other cases, something more is required in the way of concepts and techniques (4.2.2. - 4.).
4.2.1. Concatenation

In many instances, no new technique is needed to describe, either the initial nominal, or the following one. Such is the example below:

\[ \text{id} \quad \text{ii} \quad \text{Iffu kyántsi} \quad \text{it is the custom of the country} \]

This is a unitary nominal group, filling the id slot.

The pattern of Iffu conforms to the description as set out for phrase-initial nominals occupying the entire phrase. The id unit, when filled by a nominal, draws its SC from Set (iii), that of nominals with invariable pre-prefix, and the pre-prefix here is \( i- \). The id head is phrase-initial, and requires Variant 2: \( *i\text{-ffu} \).

The initial modification proper to Variant 2 is Rule 2: second/only potential high tone realized. \( *i\text{-ffu} \) has only one high tone, therefore it is realized. The realized high tone is the first in the phrase, therefore it takes peak pitch, giving \( \text{Iffu} \).

The pattern of kyántsi conforms to the description for non-initial nominals after the peak. It has an extra (possessive) dependent prefix of set (ii). The variant required for a nominal with such a prefix, when non-initial in a unitary group, is Variant 2, as shown in 3.3.2.2., and it does not take initial position. There is hence no modification of the basic variant, which is \( *kyá\text{-ntsi} \).

The preceding item has already taken peak pitch, therefore \( \text{kyántsi} \) does not.

1. Asterisk indicates that the form quoted is either the basic variant, or one of the intermediate stages before modification, determination of peak pitch position and adjustments due to elision have been applied.
To refer to sequences of this kind, in which the pattern of each individual item conforms to the relevant part of the description developed so far, I have chosen the term *concatenate sequence*. 'Concatenate' is derived from the fact that the various pieces of description, for initial and non-initial items respectively, merely have to be placed together side by side, or 'chained', without further alteration, in order to describe the whole sequence. The individual items are linked together by reason of being in the same phrase. Note that the first realized high tone takes the peak, as in the single-item phrases.

The next example shows rather different features, but is still amenable to description by means of the techniques already devised:

\[
\begin{array}{c}
\text{P} & \text{ii} & \text{iii} \\
\text{emabuula mamyanda mýnhengakyaása / mêsikwaanga}
\end{array}
\]

the skin of the roots of the nkengakyasa creeper / was beaten

The first two items of the group filling P form part of a possessive complex.

The pattern of *emabuula* conforms to the description of P heads as set out for such nominals occupying a whole phrase. P requires the head to have Variant la and phrase-initial position. Variant la for this particular nominal is *(e)ma-búla*. Being phrase-initial, it is subject to initial modification, the appropriate kind for Variant la being Rule 1: first potential high tone unrealized, hence *emabuula*.
ma-mýX-anzi 'of the roots' has an extra dependent (possessive) prefix which, like that of kyántsi in the previous example, belongs to Set (ii). The non-initial components of a possessive complex require Variant 2 and non-initial position. Variant 2 is *ma-mý-anzi, and since it is non-initial, it is unmodified. However, it contains the first realized high tone of the phrase, which is accordingly given peak pitch: mamýXanzi.

Again, no new descriptive technique is required. The position of the peak pitch in both this and the preceding example is determined by which of the items contains the first realized high tone. In the previous case, the first item did so; in the second case, the second item contained first realized high tone.

The next example contains elision:

H——Q+
ellaándil' edyóodyó, / ndwiini émbuungu áame atí (ellaándila + edyóodyó)
following this, I drank my cup of tea

The H unit draws its SC from Sets (i) and (ii). In this instance there is no augment, and the item belongs to Set (i). The H head requires Variant 1 and phrase-initial position. Variant 1 is *ellaándila. In initial position, it is modified by the rule specific to Variant 1, namely Rule 1: first potential high tone unrealized, hence *ellaándila.

The following item, edyóodyó, is filling the Q+ sub-slot within H. Q+ requires Variant 1 and non-initial position, if not unlinked. Variant 1 is *edyóodyó (with reversed final free variant). Being non-initial, the item is unmodified. Since it contains the first realized high tone of the phrase, its first high tone takes peak pitch: edyóodyó.

1. H only draws from augmented nominals of Set (ii), e.g. *okubálaanda 'to follow them'. H heads never have an extra prefix.
The only additional point to note is that there is elision:

\textit{ellaandil(a) edyöodyö}

but since both elided and eliding vowel have low tone, there is no distortion.

In the next example, the phrase under discussion consists of a chain group:

\begin{center}
\begin{tabular}{c}
\textit{V+ ii A Q-} \\
ezaak' enthanga, / bavaangaanga nłloöngó
\end{tabular}
\end{center}

\textit{some times, / they used to make remedies (ezaqka + enthanga)}

The V+ head, ezaq(a), is a modified Variant 1, as required by the slot it heads. The second item, enthanga, is an unmodified Variant 1a, as required by its position as non-initial member of a chain group (see p. 169). Variant 1a is *(é)nthaangwa, and since the item contains the first realized high tone of the phrase, the high tone will take peak pitch: enthanga.

The elision here is of the kind where the elided vowel has low tone and the eliding vowel high tone. In such a case, the eliding vowel retains high tone, and the low tone of the elided vowel is omitted.

\begin{center}
\begin{tabular}{c}
\textit{E} \textit{Q+} \\
yollel! omwáana and to look after the child (yollelā + omwáana)
\end{tabular}
\end{center}

The E/SC contains only nominal from Set (ii), that of the nominal with invariable pre-prefixes. It requires Variant 2 and phrase-initial

1. See 3.3.2.1., p. 169: 'Where both eliding and elided vowel have low tone, the low tone of the elided vowel is simply omitted.'

2. See 3.3.2.1., p.169: 'If the elided vowel has low tone, and the eliding vowel high tone, the low tone of the elided vowel is again omitted.'
position for the head. Variant 2 is *yollelā. The appropriate 
modification is Rule 2: second/only high tone realized. *yollelā 
contains only one high tone, therefore it is realized, giving *yollelā. 
The high tone is the first realized in the phrase, and therefore takes 
peak pitch: *yollelā.

 örnek is in the Q+ slot, which requires Variant 1 and non-initial 
position. Variant 1 is *onwāana, and since it is non-initial, there is 
no modification. The high tone is not the first realized in the phrase, 
so does not take peak pitch.

There is however elision of the final vowel of *yollelā. The 
eliding vowel is the first vowel of *onwāana, which has low tone. 
In such a case, the high tone is transferred to the eliding vowel, 
giving yollel' örnek.

Concatenate sequences present no problems of description, though there 
may be complications owing to elision. The peak pitch occurs on the 
first realized high tone of the phrase, and this may be on the first 
or second item. The position of the peak causes no difficulty; 
once the description of each individual item has been set out, the 
position of the first realized high tone is known.

---

1. See 3.3.2.1., p.169: 'If however the elided vowel has high tone, 
and the eliding vowel low tone, the high tone is realized on the eliding 
vowel.'
4.2.2. Composition

Not all initial items can be described in terms of modification of a variant, the modification applying to a single item. The next example is a case where the patterns of the sequence cannot be described under the terms of concatenation:

\[ \text{A Q-} \]
\[ \text{qynova / yqalle} \text{ke / ffwasq} \text{ mvvo} \text{vo} \]

to speak / with a young person / is to waste speech

The A unit head, ffwasq, fills a slot whose SC is drawn from Sets (i) and (ii). The item here is from Set (i), with neither augment nor pre-prefix. The A slot requires Variant 2 and phrase-initial position. Variant 2 is *ffwasá. The initial position entails modification, and the appropriate rule is Rule 2: second/only potential high tone realized. *ffwasá contains only one high tone, so the expected pattern is *ffwasá. Moreover, in this phrase the item would contain the first realized high tone, which should take peak pitch: *ffwasá. In fact, ffwasa has no realized high tone at all.

mvvo shows in some respects the pattern predicted by the description. It fills a Q- slot, which requires Variant 2 and non-initial position (unless unlinked). Variant 2 is *mvvo, and no modification applies. The expectation is to some extent fulfilled, since peak pitch counts as a high tone.

The problem here is the non-realization of the potential high tone in ffwasq, and the consequent occurrence of peak pitch in mvvo.

Taking the basic patterns of the sequence as a whole, one sees that there are two potential high tones:

*ffwasá mvvo

but only the second of these is realized in ffwasq mvvo.
There is provision in the description for the non-realization of the first high tone of a Variant 2, when the item contains more than one potential high tone. Rule 2 states that the 'second or only' potential high tone is realized, and if the item contains two, the first is not realized. An example is *asāqisi 'they are helpers', which, like *ffwasā, fills the A slot.

This suggests a possible means of description of the problematic case, which involves no change in the wording of the Rule 2 statement. All that is needed is to extend the sphere of operation of the rule, to more than one item. If in the case of *ffwasā mmvōvo the rule is applied to the sequence as to one item, then the pattern *ffwasā mmvōvo is covered by the existing description.

The fact that, for purposes of tonal description, two items are to be regarded as one, will be indicated by hyphenation:

*ffwasā-mmvōvo modified by Rule 2 to *ffwasā-mmvōvo

The realized high tone is first in the phrase, hence ffwasā-mmvōvo.

Where a sequence may be described in terms of an initial modification applying to more than one item, I have termed it a composite sequence. Note that the basic variant of each component of a composite is still regarded as required by the syntactic slot it heads, or by its membership of a unitary nominal group. The description of a sequence as composite refers only to the extent of operation of the initial modification; further, the specific modification is determined by the variant of the first item. As previously stated, an initial modification is not viewed as directly determined by the syntactic slot.\(^1\)

---

1. P. 188, under 4.1.4., esp. first paragraph.
On the other hand, it is noticeable that certain sequences of units are characterized by composition. A Q-unit, for instance, regularly appears in composition with a phrase-initial unit capable of being followed by Q-, as in the example of *ffwasą-mvóvo*. A condition for this appears to be that the Q-unit shall consist of a single item; other Q-units, as demonstrated in Chapter 2, are sometimes phrase-initial at the head.

The distribution of concatenation and composition will be further discussed under 4.2.4., but it may be here remarked that some sequences consisting of the 'same' items may appear as both concatenate and composite:

\[
\begin{align*}
\text{iA} & \quad \text{ii} \\
\text{ffu kyántsi} & \quad \text{it is the custom of the country (concatenate)} \\
\text{iA} & \quad \text{ii} \\
\text{cf. iffu-kyántsi} & \quad \text{it is the custom of the country (composite)}
\end{align*}
\]

It is to be noted that description in terms of composition is only required in cases where (i) Rule 2 is the appropriate modification and (ii) the initial item has a basic pattern containing only one potential high tone. This does not mean, however, that analysis as a composite is necessarily barred in some other cases.

It will be readily understood that extension of Rule 1 to operate over more than one item will produce the same results as if the rule were only taken to apply to the first item:

\[
\text{H} \quad \text{Q-} \\
\text{gssya vvuũvu kündzo áko, / nkhiŋga / malembé maandi katalašele} \\
to place hope at the house of an in-law, / suddenly / it is his pumpkins that he has cooked
\]

1. 'Don't rely on your relatives' providing you with food. Experience shows that cadging kinsmen are fobbed off with the worst available.' Pumpkins are not regarded as sufficient food, without cassava porridge.
For the sequence ḋṣṣya vvuũũvu, description in terms of concatenation will suffice. The first high tone will be unrealized, since Rule 1 is in operation. The head of H is always Variant 1, and phrase-initial. Equally, there is no bar to analyzing as a composite: ḋṣṣya-vvuũũvu. When concatenation and composition are distinguishable, Q- is regularly in composition with the preceding phrase-initial unit, and vvuũũvu is filling a Q- slot. Either analysis is satisfactory, but composition was introduced primarily to enable description of sequences where the patterns cannot be described under concatenation, and it seems unnecessary to call upon it here.

Where the first item of the sequence has a basic variant containing two potential high tones, there is again no need to invoke composition:

A ii

asądisį ġămboṭe  they are good helpers

asądisį heads the A unit. As such it appears as Variant 2, *asądisį modified by Rule 2: *asądisį, and its realized high tone is first in the phrase, hence asądisį. The modification operates over the first two potential high tones only, never beyond. Analysis as a composite, asądisį-ġębőte, is not excluded, but is not required. Concatenation is the simpler form of description, and seems preferable here.

In such cases, one might say that the concatenate /composite distinction is neutralized.

A final point to note is that the first component of a demonstrable composite sequence is not distinguished in any way other than tonally from the corresponding item heading a concatenate sequence. There are no phonological peculiarities, for instance; the first component of a
composite displays vowel length at the same points as in a corresponding non-composite:

\[
\text{A ii} \\
\text{muuntu-} \ddot{\text{m}} \text{mbote he is a good person}
\]

cf. \text{muuntu} he is a person

\[
\text{P ii ii} \\
\text{enthaangw' ëddyà / inthaangw'ëddyà} \quad (1)
\]

the time for eating /is the time for eating (not for talking)

The point of this observation will become clear when the next type of initial sequence is discussed, under 4.2.3.

No new concept is required to describe the sequences termed composite. The only fresh feature is the extension of the initial modification ot a non-initial item. The statement of the modification does not itself require changing, however; it still applies only to the second/only potential high tone of the sequence, and any further potential high tones are fully realized:

\[
\text{A ii} \\
\text{se-} \ddynkkeénto he is the father of the woman
\]

The second item here contains two high tones in the basic pattern *dyá-nkkeénto (Variant 2), the second of which is third in the sequence *sé-dyánkkeénto. Operation of Rule 2 leads to non-realization of the first only of the entire sequence: se-\ddynkkeénto. The sphere of operation of the rule does not extend beyond the first two potential high tones of any sequence.

1. The P group could also be analyzed as a composite: enthaangw'-ëddyà.
4.2.3. Compounding

The following is a sequence which cannot be described in terms of either concatenation or composition:

\[
\begin{align*}
\text{A} & \quad \text{ii} \\
\text{asadisi} & \quad \text{łmbote} \\
\text{they are good helpers} & \quad (\text{cf. oásadisi 1, asádisf 2})
\end{align*}
\]

The initial item, asadisi, is of a tone-class having two potential high tones in both variants. Neither is realized here, and in fact the maximum number of non-realizations possible under either initial modification rule is one.

In the next example, the initial item appears to have the tone-pattern compatible with initial modification under Rule 1, but displays another peculiarity:

\[
\begin{align*}
\text{P} & \quad \text{ii} \\
\text{yau źkulu / bźvovaanga vō} & \quad \text{they the ancestors / used to say that}
\end{align*}
\]

The head of the P unit is a pronominal of Series 1. The variant proper to the head of the P unit is La, which in the case of Series 1 is *(o)yaaau in this instance. P requires phrase-initial position for the head, and the modification applying to Variant la is Rule 1, giving *(o)yaaau. The tonal realization of yau in the example appears to be in order, as also the absence of Initial Vowel — but yau contains no vowel length.

It may be added that this peculiarity of lack of vowel length in an initial item, where other forms of the nominal display length, is always accompanied by absence of Initial Vowel. yau may not have IV. The head of a P unit may certainly appear without IV, but this has been described as free variation. In the case of a shorter vowel form, such as yau, the IV is excluded.
A third example shows yet another peculiar feature:

\[
\begin{array}{ll}
A & Q- \quad ii \\
\text{básadilaanga / nllongo myayíngi} & \text{they used to use / many remedies}
\end{array}
\]

(cf. nllongo Var. 2 'remedies')

The phrase filling Q- consists of a possessive complex. The first component displays lack of vowel length as compared with the regular Variant 2 proper to the Q- slot. The main point of interest, however, is that nllongo begins a phrase, although it is not obligatory for Q- to do so. Compare also:

\[
\begin{array}{ll}
A & C \quad ii \\
\text{bákalaanga / asadisi ìmmbote} & \text{they were / good helpers}
\end{array}
\]

The C unit, like the Q- head, here begins a phrase, although C does not require this position. In addition, the first item comes from a tone-class which has two potential high tones in both basic variants; Variant 2 is proper to the head of C, but neither potential is realized, as in the first example in this section.

I propose therefore to set up a third type of initial sequence, that of the compound. The compound is defined as a sequence in which there is no realization of potential high tone in the first component, whatever the number of the potential.

As already indicated, there are other features of compounds which mark them off from other initial sequence; and these will be discussed in detail shortly.

It is useful to mark compounds in such a way as to distinguish them from the concatenate and composite sequences, notably the latter, which in some respects resemble the compounds. The following
notation is adopted:

(i) the component without realized high tone is not given subscript
dot marking:

\[ \text{asadisi- yau- nllongo-} \]

(ii) the components of a compound are hyphenated, as for composites,
but in addition the unit label is followed by a subsidiary label
(c) indicating 'compound':

\[
\begin{align*}
A(c) & \quad \text{asadisi-ñmbote} \\
C(c) & \quad \text{asadisi-ñmbote} \\
P(c) & \quad \text{yau-Ákulu} \\
Q(c) & \quad \text{nllongo-myayíngi}
\end{align*}
\]

(iii) where the components of a compound form part of, or the whole of,
a unitary group, a non-initial component of a compound is not in general
given a lower case Roman numeral:

\[
\begin{align*}
A(c) & \quad \text{asadisi-ñmbote} \\
\text{they are good helpers} \\
A & \quad \text{ii} \\
\text{cf. } & \quad \text{asadisi-ñmbote} \\
\text{they are good helpers (concatenate or composite)}
\end{align*}
\]

The compound is thus distinguished from the composite in two ways.
The first component of the compound has no subscript dots, whereas that
of a composite always has, since all nominals contain at least one
potential high tone. Secondly, the (c) label indicates that the
sequence has been analyzed as a compound.

1. Where non-initial components head syntactic slots, however, they
are given the unit label. See the example min'-oyändi 'that which he'
in 4.2.3.2. below, where the second component is a Pa head (p. 208, first example)

2. I am indebted to Professor Guthrie for suggesting the (c) label
for the compound.
The correlation of basic variant and realization is rather more
difficult for compounds than for other initial sequences. It has been
observed that a compound head never has IV; the affinity therefore
appears to be with Variant 2 than with Variant 1. On the other hand,
a compound may head a slot which 'requires Variant 1a', where the presence
/absence of IV is, in all but compounds, in free variation. In view
of this uncertainty as to which Variant should be regarded as the basis
of the first component of a compound, it seems best not to make a judgment.
This is one reason why the initial item is not given subscript marking;
in cases where Variant 1 and Variant 2 have different basic patterns,
marking the dot in one position rather than another would be to beg the
question.

4.2.3.1. **Subordinate and dominant components**

It is now convenient to adopt terms for the components of a compound.

**Subordinate component** (sc.) refers to the component without realized
high tone:

    asadisi-    yau-    nllongo-

**Dominant component** (dc.) refers to the last component, of which the
high tone potential is **fully realized**:

    -mmbbote    -ukulu    -myayYingi

The dc. may be of the kind which has a pattern showing high tone
on the pre-stem vowel, e.g. (é)ngudi 'mother', (é)ndzo 'house'.
This may be symbolized by high tone mark over a preceding hyphen:

-ngudi, -ndzo. In such a case, the high tone is realized on the
The dc. appears to have peculiar features in the case of possessive pronouns of Series 9. As non-initial members of possessive complexes, these have been described as appearing in (1) Variant 2 form:

...ngudi záau their mothers (cf. (e)zaaju Var. 1)

When the possessive complex is compounded, however, the pronominal shows Variant 1 pattern:

ngudi-záau their mothers

Apart from this one eccentricity, the dc. of a compound can be described by the methods already devised for non-initial members of a group, or for nominals filling non-initial syntactic slots (i.e., with upper case letter labels).

4.2.3.2. **Morphological characteristics of compound components**

As far as the ability to take Initial Vowel is concerned, the sc. of a compound is a morphological invariable. It never appears with IV.

By contrast, the dc. is not an invariable, and may appear with IV if the position it takes either requires or allows it. The Pa

1. See 3.3.2.2., unitary groups, p. 169, para. (b).
unit, for instance, requires Variant 1a, and alternatives with and without IV are recorded when the head is compounded with a preceding pronominal:

\[ V(c) \quad ii(c) \quad Pa \quad ii \quad K \quad ii \]

nkumbu-myaw\’\’onsono / min\’-oy\’\’andi nkkiti kasinga kwenda

all the times / those which he the trader will go

 oy\’\’andi heading the Pa unit has IV, and is the dc. of a compound.

Compare however:

\[ V(c) \quad Pa \quad ii \quad K \quad ii \quad Qs \]

vaav\’-\’akulu \’\’eto básadillaang\’\’ dyo (cf. o\’akulu)

then that our ancestors used to practise it (when our ancestors...)

The head of the Pa unit here, \’akulu , has no IV. Similarly, the Q+ unit requires Variant 1, and always appears with IV, even when compounded:

\[ V(c) \quad Q+ \quad ii \quad A \]

ttuuk\’-\’enthangaangwa yaa\’ina, / wamundaang\’\’ nkkaanda myabbulu

to come from that time, / he used to keep the skins of the animals (from that time onwards)

\’enthangaangwa fills a Q+ slot, and is the dc. of a compound with the sc. ttuuka(a).

The sc, of a compound may, however, take pre-prefixes:

\[ iA(c) \]

ingudi-\’ankhazi he is the maternal uncle (lit. mother of relatives)

(i-, stabilizing pre-prefix)

\[ J(c) \]

kwandzambi-\’amphuungu to God of the highest

(kwa- J unit pre-prefix; cf. (o)ndz\’ambo Var.1, ndza\’ambo Var. 2 'God')

dyandzambi-ana\’ina of frivolity (lit. of the eighth god)

(dya- poss. pref. and (o)ndz\’ambo, ndza\’ambo as in previous example)
4.2.3.3. Phonological features of subordinate components

One feature of sc's of compounds, already illustrated, is the frequent absence of vowel length, as compared with the corresponding non-compounded items. This is not an invariable feature, and instances have already been cited where the sc. has vowel length:

vaava—then, when (cf. evááva Var. 1, váavá Var. 2, Series 7)

ttuuka—from...onwards (cf. étuúka Var. 1, ttuuká Var. 2)

This feature cannot therefore be taken as a criterion of compounding. It is however sometimes useful in providing a distinction between compounding and composition, where the first component has only one potential high tone in the basic pattern:

nłlongo-myayíngi many remedies (compound)
cf. nloongo-myayíngi (composite)

nthangwa-zawoñonso all times (compound)
cf. nthangwa-zawoñonso (composite)

Compounding may be marked by absence of vowel-length; composition never is, if the appropriate variant contains it. The long/short vowel distinction has been incorporated into the orthography, one letter indicating the shorter length of the vowel in the compound sc.

There are however other phonological features of sc's, which have not been given representation in the spelling.

Geminate consonants tend to be indistinguishable in length from non-geminates:

nkumbu-myayíngi many times, often (cf. nkkúmbu Var. 2)

nti-mwangołó trees of strength, hardwoods (cf. nttf Var. 2)
There does however seem to be some characteristic distinguishing the geminates from the non-geminates, in a more forceful articulation of the former. The double letter has therefore been left in the spelling of the sc's, to indicate that there is some distinction, although length is no longer a marker of difference. (1)

Other nasal combinations also tend to be simplified:

\begin{align*}
\text{thangwa-} & \quad \text{times} \quad \text{cf. nthâângwa Var. 2} \\
\text{tsusu-} & \quad \text{chicken} \quad \text{cf. ntsûsu Var. 2}
\end{align*}

This however is only a tendency, and is not consistent enough to warrant representation in the orthography used here. Some other observations on the phonology of compounds are set out in Appendix II.

4.2.3.4. Phrasing of compounds

Perhaps the most remarkable characteristic of all is that the compound invariably begins a phrase, even when heading a unit which does not require that position, and even when forming part of a unitary group, as non-initial member.

1. See Carter, 'Consonant Reinforcement', Bibliography no. 3, p.115: 'a reinforced (= geminate) ... consonant is in general longer than its plain (= non-geminate) counterpart, but additional duration is not the only, perhaps not the most significant, feature from the point of view of auditory discrimination '(my italics). At the time this article was written, it was recognized that geminates did not always display length, but the distribution was not clear, since the phenomenon of compounding had not yet been isolated. Examples in the article are all of non-compounded items.
In some cases, the phrasing characteristic of the slot coincides with that of the compound filling it. Such are the examples of A, P, pre-nucleus V and the J units already cited. The head of such a unit is phrase-initial, whether compounded or not. Similarly N, pre-nucleus S and E units may have a compounded head:

\[
\begin{align*}
\text{A} & \quad \text{N(c)} \\
wākala / yomadyā-maandi & \quad \text{he was / with his food}
\end{align*}
\]

\[
\begin{align*}
\text{S(c)} & \quad \text{E(c)} \\
munkā-nitu / yemuna-mwānda & \quad \text{in the body / and in the mind}
\end{align*}
\]

(lit. in there the...)

The compound may, however, head a unit which does not require phrase-initial position. It may be remembered that in Chapter 2, some units such as C, Q-, R-, post-nucleus S- and Y were stated to have apparent 'phrasing alternatives'. It can now be seen that the phrase-initial 'alternative' is displayed only by compounds heading these slots:

\[
\begin{align*}
\text{A} & \quad \text{X} & \quad \text{C(c)} \\
winaangā mphe / mwan'-aNdzámbi & \quad \text{he is also / the child of God}
\end{align*}
\]

(1)

\[
\begin{align*}
\text{A} & \quad \text{Q(c)} \\
básadilaanga / nllongo-myayāngi & \quad \text{they used to use / many remedies}
\end{align*}
\]

(2)

\[
\begin{align*}
\text{A} & \quad \text{S(c)} \\
zekoka / kun-kǒko kwalu ninja & \quad \text{turn / to the right(hand)}
\end{align*}
\]

(lit. to there the hand of rightness)

(3)

The Q and S units here are not marked with the minus sign. While taking part in the entailments distinguishing Q- and S-, these units do not exhibit the same phrasing characteristics as non-compounded Q and S heads. The syntax of compounds will be discussed more fully in 4.2.4.; meanwhile it is to be borne in mind that phrasing is held to be a syntactic marker, and if this hypothesis

2. Cited on p. 81 under 2.1.7.
3. Cited on p. 103 under 2.1.16.
is to be maintained, different phrasing must be taken as indicative of different syntactic unit, even when there are some characteristics in common.

Most striking are the cases in which a compound forms part of, but does not initiate, a unitary nominal group. Wherever the compound occurs, it begins a phrase, even in examples such as the following:

\[ \text{P ii(c) A eyaayǐ / yau-yoolé / yivvaanaang ntsaåma} \]
\[ \text{these / they the two / give significance} \]

The second and third items of the group filling P are a compounded appositional group, itself part of a larger appositional group. Similarly:

\[ \text{V-i-i iii iv(c) mutteezó kyangōonde zózo / zaú-vwa} \]
\[ \text{in the period of those months / they a ninesome} \]
\[ \text{(throughout those nine months)} \]

The compound here is now near the head of the unit, but begins a phrase.

It may be added here that groups apparently composed of the same items are found with both composite and compounded heads in units requiring phrase-initial position:

\[ \text{A ii mwaan'-mpfumu he is the child of a chief (composite)} \]
\[ \text{A(c)} \]
\[ \text{cf. mwaan'-mpfumu (compound)} \]
Where the first component has a basic pattern containing only one potential high tone, the distinction between compounding and composition may be neutralized, in respect of the tone-pattern (1). In the absence of some other distinguishing characteristic, such as long/short vowel contrast, or phrasing contrast, sequences such as the following may be analyzed either way:

\[
\begin{align*}
&
\text{A} \quad \text{ii} \\
& \text{vəta-dỳàmbote} \quad \text{or} \quad \text{vəta-dỳàmbote} \\
& \text{it is a fine village}
\end{align*}
\]

In the first case, composite, and in the second, compound analysis has been proposed.

4.2.3.5. **Triple compounds**

Compounds so far have consisted of two components, one sc. (subordinate component) and the other dc. (dominant component). It appears necessary however to distinguish another kind of compound, consisting of three components, two of which are sc's:

\[
\begin{align*}
&
\text{A} \\
& \text{bəvuṭukaanga} / \text{kuna-mavatə-mainu} \\
& \text{they would return / to there villages their (to their villages)} \\
& \text{S(c)} \\
& \text{cf. kuna-məvata to there villages (to the villages)}
\end{align*}
\]

1. It is pointed out in Appendix II that even here there is some differentiation.

The sc. of a compound is spoken at a higher rate of delivery than the first element of a composite. These features are difficult to quantify, so have been omitted from the main argument. **Tonally** there is no distinction.
The tri-component, or triple, compound is here compared with a bi-component compound. The second element of the triple compound, -mavatā- displays the non-realization of potential high tone characteristic of an sc., in contrast to the second element of the bi-component compound, -māvata, which is a dcl and shows fully realized high tone (Variant la). The final high tone in-mavatā- is associated with the following possessive pronominal, -maau (here -maau, since this is the first realized high tone of the phrase).

Compare also:

\[
P(c) \quad A \\
yau\text{-}akulā\text{-}eeto / okō vo \quad \text{they our ancestors} / \text{it is there that} \\
\text{(our ancestors used to say that)}
\]

\text{cf. yau\text{-}kulu \quad they the ancestors}

The second component of the triple compound, -akulā-, again displays the characteristic non-realization of potential high tone; its final high tone is associated with the following dc., -eeto 'our'.

Contrast the dc.-kulu of the bi-component compound, which displays full realization of potential high tone, Variant 1 pattern.

Compounds are of immense frequency in Zombo. In one random sample of twenty sentences running, of varying lengths, there were thirty-four compounds, and no sentence was without at least one. A glance at Appendix I will serve to support this statement.

It will be appreciated that initial modification, whether of single items or in sequences, results in the neutralization of tonal distinctions over a large area of the language. Compounding, in which potential high tone is unrealized in the first one or even two components, represents the extreme of this process.

A list of the more common nominal compounds is given in Appendix III.

\[1. \quad \text{Here without Initial Vowel, but regarded as Variant 1a rather than 1. See p. 170, appositional groups.}\]
4.2.4. **Initial sequence and syntax**

Manifestly the three types of initial sequence are not of the same order. Concatenation and composition can be described within the framework of the syntax-phrasing correlations set up in Chapter 2. Their phrase-initial position is determined by the syntactic slot filled by the items of which they are composed, as in the case of single items filling a slot.

Compounding, by contrast, is quite a different kind of phenomenon. Here the phrase-initial position cannot be regarded as determined by the syntactic slot, though the compound may often head a unit requiring phrase-initial position. The case of the unitary nominal groups containing phrase boundary — the 'broken groups' — emphasizes the peculiar situation of the compound in respect of phrasing; here the compound does not even head the unit.

There are thus two major categories of phrase-initial tonal phenomena, the one including both concatenation and composition, and the other, compounding only.

4.2.4.1. **Concatenation and composition**

It has been said that composition is a purely tonal term, introduced to enable description of sequences in which the initial modification is under Rule 2, and the first item contains only one potential high tone in the basic pattern. \(^{(1)}\) Where Rule 1 is the appropriate modification, it is unnecessary to postulate composition. Conversely, a composite analysis is not excluded in such cases, as also in those of phrase-initial items modified by Rule 2 and containing

---

1. See p. 200 under 4.2.2. above, third paragraph.
two potential high tones in the basic pattern. The concatenate/composite distinction is masked in such instances. Argument however can only proceed from demonstrable distinction.

It is assumed that the difference is a marker of some kind, but it is clear that this is not concerned with the relationship of the sequence to other units in the same sentence: what may be called the external relationships of the group. Relationships of this kind are signalled in other ways, by the characteristics of the unit as set out in the definitions of Chapter 2. The meaning of the initial sequence types must therefore be sought elsewhere, in the internal relationships of the group: those obtaining between the components of the sequence.

Some light is thrown on this question by the fact that certain groups appear only as composite, in conditions where the concatenate/composite distinction is overtly marked. Such for instance is

\[ \text{iA} \quad \text{ii} \quad \text{seqsi-ndzō} \]

they are now the inhabitants of the house

The first component of the composite here is a nominal, \*ési- 'inhabitants (of)', stabilized by se- 'it is/they are now/then'. ési- is one of a set of nominals which never occur without a following independent nominal. Variant 1 is oési-, and Variant 2 is esí-. 
Other examples are given in Variant 1 form:

inhabitant of a village  \textit{omwisi-váta}  [1]
member of a kibanga group  \textit{omwisi-kibbaanga}  [1]
customs/language of the Kongo  \textit{ekísi-Kóongo}  [2]
members of a clan  \textit{ósi-kaanda}  [2]

The stem of the first component can be generalized as \textit{-isi-}. The members of the \textit{-isi-} set may be called \textit{bound items}, since they never appear without a following nominal. When heading a phrase-initial unit where composition can be distinguished from concatenation, \textit{-isi-} and the following nominal are always in composite sequence.

---

1. The \textit{kí-b-baanga} (Class 7, augmented stem) is, or was, a house without walls where the men of the village gathered to eat. Bachelors and men whose wives had recently given birth to a child, also slept there. A large village or town might have several \textit{yíbbaanga}.

2. Most second components of the set can be described as having Variant 2 pattern, e.g. \textit{-váta}, cf. Var. 1 \textit{évata}. The pattern \textit{-kaanda} however does not exist outside the set. Var.2 for this item is \textit{kaanda}, undistinguished tonally from Var. 1. The pattern \textit{kaanda} may perhaps be regarded as a fossilized earlier Variant 2 pattern.

3. Guthrie, \textit{BSS} p. 21, no. 17, calls the equivalent structures in \textit{BSS} Kongo 'a kind of compound'. The term compound is not used here, since it is reserved for special use.
Another set of bound items is formed by the independent nominal

(6)nk-kwa/nk-kwa 'possessor' Class 1, and the corresponding Class 2 plural,
(6)a-kwa/a-kwa. These are always followed by possessive prefix attached
to an independent nominal, and when in phrase-initial position, the
bound item and following one are invariably in composite sequence, e.g.

A ii iii
nkow(q)-nitim avvolo... she is possessor of a heart of calmness

akow(q)-angangu they are possessors of wisdom

(1)

This suggests that the relationship between the components of a
composite is similar to that obtaining between a bound item and that to
which it is bound. There is a strong degree of cohesion between them,
such that the two are better regarded as one item. It need hardly be
added that already, on the tonal level, composites are treated as A
single items in that the initial modification operates over both
components as over one item.

(2)

It is sometimes possible to reflect the concatenate/composite
distinction in the English glosses. Concatenate sequences are
rendered by the more crudely literal translation, retaining as far
as possible the order of the Zombo items; among the devices used to
gloss composites are English nominalizations, hyphenation and
pre-posed genitive:

1. The elided vowel is shown in brackets here, to demonstrate the
analysis, in departure from the convention followed elsewhere in this
study, of indicating elision of -a by apostrophe.

2. The numeration of the second component of a composite by means
of lower case Roman numeral is, however, retained, for ease of
distinguishing composite from compound.
iffu kyāntsi  it is the custom of the country (concatenate)
cf. iffu-kyāntsi  it is the local custom (composite)

yollel' omwāana  and to look after the child (concatenate)
cf. yollel(a)-omwāana  and child-care (composite)

ffwasa-mvuvvo  it is speech-wasting (lit. is to waste speech)
esi-vāta  they are village people (lit. inhabitants (of) a village)
mwaqn'-xmpfumu  he is a chief's child (lit. child of a chief)
nkhī-ánthaangwa?  what time is it? (lit. it is what of time?)

The last example shows *nkhī? *(it is) what?* which only stands as a nucleus, and when followed by a possessive, is always in composition with it.

Composition, then, is viewed as the exponent of a closer relationship between the components of the sequence, in contrast the concatenation, which marks a looser cohesion.

4.2.4.2. Compounding

If one accepts the hypothesis here put forward, that phrasing is a syntactic marker, it follows that the compound must be regarded as a special kind of syntactic unit. It is also obvious that the 'compound unit' cannot be defined in the terms used to describe the syntactic units discussed in Chapter 2. Nor can the compound be removed from the SC of those units whose label it bears, in those cases where it heads the unit. Its external relationships to other units are no different from those of other members of the SC, and it

1. Before verbals, however, it is not in composition, e.g.
nkhī kasinga vwaanga?  it is what that he is going to do?  See further under 6.2.4.1., p. 262 (ii).
must hence be taken as constituting a sub-division of the unit SC.

This being so, one must again seek the meaning of compounding within the sequence itself.

Compounding is defined tonally as the non-realization of the high tone potential of the first component of the sequence. This non-realization does not take place unless there is a following item. The components of a compound may therefore be said to constitute a single item. Moreover, both components may be described as 'bound', in that at least some items occur with different patterns in and outside compounds, even in the case of the dominant components. (1)

In this respect, the compound resembles the composite to some extent, but in the former case there is no question of a general initial modification applying to other sequences, or to single items; the 'modification' shown by the compound is peculiar to itself. Although the dominant components display some slight tonal peculiarities, the main characteristics of compounding are to be found in the subordinate components.

One may perhaps see a parallel to compounding in the processes which led to the development of the modern Romance definite articles from the Latin pronouns; e.g. French le and Italian il from Latin ille. A similar process led to the development of the modern English genderless article the from the Old English feminine pronoun þēo 'she'. This process is termed, by some historical linguists, 'weakening', and there are several features reminiscent of weakening in the sc's of Zombo compounds.

The sc. has no morphological variation; it has 'lost' the Initial Vowel. Its phonology is much reduced from that of the

1. The possessive pronominals, which as dc. of a compound have Variant 1 pattern, instead of the Variant 2 found in non-compounded possessive complexes. See under 4.2.3.1., p. 207.
full nominals, such that certain distinctions may be neutralized; the long/short vowel distinction is a case in point. Finally there is the lack of high tone realization, leading again to neutralization of distinctions operating elsewhere (though not everywhere else) in the language. In all these ways, the sc. of a compound displays characteristics which amount to a loss of part of the morphological, phonological and tonal complement. This could readily be described as 'weakening'.

The relationship of the sc. to the dc. might be described as one of dependence. Not only is it bound to the following dc., but also it is considerably reduced as to the distinctions it is capable of displaying. These reductions are not observable in the case either of single items, or of initial components of a composite. The item nilongo- 'remedies', for instance, does not and cannot occur in this form outside a compound; in all other contexts it has a long vowel. The item yau- 'they' likewise is only found as sc. of a compound; elsewhere it has long vowel, and in certain syntactic slots, such as P and Q+, either may or must have IW. Similarly asadisi- 'helpers' in every other context but that of the compound appears with at least one potential high tone realized. All these are dependent upon the presence of the following dc., and this dependence has as its exponent, not only the reduced nature of the sc., but also that of phrase-initial position.

It is impossible to gloss a Zombo compound in any way which accurately reflects its special character, particularly when one has also to try and maintain the concatenate/composite distinction. Sometimes an English prepositional group provides a reasonably adequate rendering:

kuny-ndzo back to the house, over to the house
In other instances, the meaning may be parcelled out among several elements in the sentence:

- \( A \ S(c) \)
  - mbvutukidi / kuná-ndzo
  - I \textit{went back} to the house

- \( A \ S- \)
  - cf. mbvutukidi kündzo
  - I \textit{returned} to the house

- \( A \ S+ \)
  - and mbvutukidi okündzo
  - I \textit{came back} to the house

Non-locative pronominal sc's have no parallel at all in English, and here I have had no option but to give a crude translation:

- yau-şkulu they the ancestors
- yandí-ngudi she the mother

Pronominals heading compounded possessives may sometimes be rendered by English prepositions:

- \( A \ Q(c) \)
  - walšongwaanga / edí-dyavvešnga
  - she was taught / \textit{about} avoiding
  - (lit. this (matter) of avoiding)

In some cases the distinction between the three kinds of sequence may be indicated by different \textit{lexical items}:

- òse dyünkkeënto the father of the woman (concatenate)
- se-dyünkkeënto (he is) the woman's father (composite)
- se-dyünkkeënto the paternal aunt (compound)
- ñndza yákkaka a world of difference (concatenate)
- ndz(á)-ykkaka a different world (composite)
- ndz(á)-ykkaka another world (compound)\((1)\)

1. The concatenate shows a different morphological form of the possessive prefix, \textit{ya-}, as against \textit{a-} in the composite and compound. The distribution of this feature is not sufficiently regular to allow of its \textit{admission} as an additional marker of distinction.
enkkuumbu myaylingi on many occasions (concatenate)
nkkumbu-myaylingi many times (composite)
nkkumbu-myaylingi often, frequently (compound)

Needless to say, nothing in English can match the phrasing of the compound. Phrase boundary is not to be equated with the boundary of the English intonation group, nor with any other kind of English juncture. Though the boundary mark is repeated in the English translations, it is quite meaningless there. Nor are there grounds for postulating a parallel with different degrees of emphasis in English, in whatever ways signalled. I am not convinced that the reduction of the sc. signals a reduction of emphasis, merely an increase in the dependence of the sc. upon the dc.

This relationship of dependence is apparently important enough to demand a phrasing exponent. The internal relationship takes precedence over the external relationships in this respect; the phrasing required by the compound may over-ride that otherwise required by the syntactic slot it heads, or by its membership of a unitary group.

It will be remembered that such a situation has arisen before, in some cases of G unit heads which stand in a relationship of Q or C to the preceding item. Both units have the phrasing characteristic 'non-initial'; but if the head of the G unit filling Q or C also stands as A within G, then it follows the A phrasing, and is phrase-initial:

Here the internal relationships of G take precedence over the external ones; the status of the G head as A within G has the phrasing exponent, not that of its status as Q or C.

This therefore supports the contention that compounding is a marker of internal relationships, whose exponent takes precedence over that of the external relationship of the compounded sequence.

4.3. Summary

The rising sections of peaked phrases, and the whole of peakless phrases, are taken into the tonal system as low tones, enabling an approach to be made to phrase-initial nominals. Nominals occupying the entire phrase are amenable to description in terms of two initial realization rules, operating on two basic variants which are fully realized in the two tono-morphological variants established in Chapter 3. These initial realization rules are also called modifications, and each is specific to one basic variant.

The initial modification is not regarded as directly dependent on the syntactic slot the nominal fills, but it is indirectly so. The syntax determines the basic variant and the phrase-initial position, and the particular modification is a function of the specific variant occurring in that position.

Some of the complexities are dealt with by the establishment of three sets of nominal items, from which the substitution classes of syntactic units and unitary nominal groups are drawn. Two of the sets contain both basic variants (with a sub-division for one variant) while the other has only one, but the latter is still classed as a specific and not an undifferentiated variant. The substitution
class is part of the definition of the unit, and some units draw from more than one set.

Units which have co-extensive SCs on morphological definition are held to require the same basic tono-morphological variant.

Phrase-initial sequences of nominals are classified as concatenate, composite and compound. In a concatenate sequence, the pattern of each item conforms to the descriptions made for individual items, whether initial or non-initial. The first realized high tone of the phrase has peak pitch. There may be distortion owing to elision, but otherwise no additional concepts or techniques are required for description of the patterns.

In a composite sequence, initial modification is regarded as applying to two items as to one. Composite analysis is positively indicated only when one of the realization rules (Rule 2) is in operation, and the initial item of the sequence contains only one potential high tone. It is not however excluded in some other cases. This situation is described as a masking or neutralization of the concatenate/composite distinction.

A compound sequence is one in which the initiating item has no realization of potential high tone, irrespective of the number it may contain. Such an item is termed the subordinate component of the compound, while the component with fully realized potential high tone is termed the dominant component. Subordinate components are also characterized by lack of morphological variation in respect of ability to take Initial Vowel, and have phonological features which amount to a reduction of the phonemic complement. Compounds are invariably phrase-initial, even when the slot they fill does not require this position, or when they are non-initiating members of a unitary group. Some compounds have two subordinate components.
Peak pitch is in all cases the first realized high tone of the sequence; its position is determined by the type of initial sequence.

The concatenate/composite distinction is held to be the exponent of a different kind of relationship between the components of the sequences. Composition expresses a relationship of the kind subsisting between a bound item and that to which it is bound; such structures are always found in composition when phrase-initial, and when the contrast of the two sequences is overtly marked. Concatenation marks the absence of such relationship. The phrasing of both types is governed by the external relationships of the head of the sequence, i.e., its relationships with other units in the sentence, which are part of the unit definition.

Compounding is held to be the exponent of an even higher degree of cohesion between the components of the sequence, such that the subordinate component/s are described as dependent on the dominant component. This relationship apparently requires a phrasing exponent, which may over-ride the phrasing otherwise required by the external relationships; the compound may even occur within a unitary group. A parallel exists in the phrasing of some G unit heads, which are phrased according to their status within G, and not according to that of the head in relation to units outside G.
Chapter 5

PARTICLE PATTERNS

5.0. Introduction

Of the two remaining item categories, particles and verbals, the particles are approached first. This is for two reasons. Firstly, particles may to some extent be examined in the same way as nominals. It is possible to compare the patterns of particles occurring totally after peak, in which the item is regarded as having full realization of high tone potential, with the patterns of phrase-initial particles. Not all particles may occur in both positions, but there is a sufficient number to enable comparison to be made. Secondly, the approach to verbals is greatly simplified when both nominals and particles have been described.

It will be seen that many of the concepts and techniques developed for the description of nominals can be used in the description of the particles, although some do not apply. Particles are morphological invariables; there is then no question of tono-morphological variation of the kind established for nominals. The concept of tone-class is also not useful. Initial modification and initial sequence are however applicable, although in no case has it been found necessary to describe a phrase-initial sequence headed by a particle in terms of compounding; that is, particles do not appear as subordinate components of compounds, although they are found as dominant components.

The morphology of particles is much simpler than that of nominals or verbals. Some particles bear a resemblance to nominals, but this is a matter of historical interest, and need not be taken into account in the synchronic description.
5.1. **Particles occurring totally after the peak**

Particles which may occur totally after the peak are all members of the X/SC, the X particle e?, and two particle G heads, kana and vo, which may fill other primary slots in the sentence:

- **X/SC**:
  - beéni: much, greatly
  - dvaaka: again
  - káka: only, merely
  - kála, kalá: already
  - kíbeeni: self
  - kíkílú: very
  - (')mphe: also
  
- **Xa**: e? question marker
  
- **G/SC**: kana: whether, before
  - vó, (')vo: that

Of these, several require further comment.

kála, kalá 'already' and vála, valá 'far off' are free variants.

(’)mphe 'also' has an associated preceding high tone when the final vowel of the preceding item has potential low tone:

```
P  ii  X
  engudi  amväana  mphe  the mother of the child also
```

cf. engudi amväana  the mother of the child

When however the preceding vowel has potential high tone, there is no extra high tone associated with the presence of mphe:

```
P  ii  X
  edyaambu  dyØodyØ  mphe  this matter also
```

cf. edyaambu dyØodyØ  this matter

1. Closer to French 'justement'.

2. Also (')e? See 6.1.4.3., p. 255.
vó, (')vo in some respects displays a behaviour similar to that of (')mphē, except that when the previous vowel has potential low tone, the high tone associated with the presence of vo may be realized either on the preceding vowel, or on vo itself:

\[ iA \quad Q(G) \]
\[ Yssya \ vó \quad it \ is \ to \ put \ that \ (that \ is \ to \ say) \]

or Yssyá vo

e?, the question marker, may produce elision of the preceding vowel; the rules of elision are however not quite the same as for other cases.

When the elided vowel has low tone, it is imply omitted, as in other (1) instances of low tone elided and eliding vowel:

\[ A \quad ii \quad F+ \quad Xa \]
\[ osinga \ lleänd' \ ómmon' \ e? \quad will \ you \ be \ able \ to \ see? \]

\[ A \quad ii \quad F+ \quad cf. \quad osinga \ lleänd' \ ómmana \quad you \ will \ be \ able \ to \ see \]

However, when the elided vowel has high tone, this is realized on the vowel preceding the elision:

\[ A \quad ii \quad F+ \quad Xa \]
\[ osinga \ lleänd' \ okkót' \ e? \quad will \ you \ be \ able \ to \ get \ in? \]

\[ A \quad ii \quad F+ \quad cf. \quad osinga \ lleänd' \ okkotá \quad you \ will \ be \ able \ to \ get \ in \]

This may be described as high tone shift, as in cases where both elided (2) and eliding vowel have high tone. It is peculiar to e?; in no other case of high tone elided and low tone eliding vowel does shift appear to operate. (3)

kana is remarkable as being the first item cited which has no high tone whatever. All nominals contain at least one high tone.

1. See 3.3.2.1., p. 168.
2. See 3.3.2.1. Compare however 6.1.4.3. below, where e? at the end of a phrase with no potential high tone has an associated preceding high tone. (p.255).
3. The rise of pitch during e? is not classed as high tone, since the vowel begins on base pitch. See 1.2.1.4., p. 29.
Particles are invariable as to morphology, and there is thus no question of tono-morphological variation. Such variation as does occur appears to be either unconditioned, as in the cases of vála, valá and kála, kalá, or to some extent tonally conditioned, as in the case of (')mphe and (')vo.

No purpose is served by arranging the particles in tone-classes, although a certain amount of resemblance to nominals is observable. dyaáka resembles the Variant 2 pattern of edyá-aka / dya-áka 'another (matter)' (Class 5 dependent prefix attached to stem -aka, TCI); kíbeeni and kíkilu both resemble Class 7 augmented stems of TCI, cf. (e)kí-mm-beevo 'illness', again Variant 2 rather than Variant 1, since there is no Initial Vowel; valá is suggestive of a connection with the TCII stem -lá 'long, high, deep', with Class 16 (dependent) prefix attached, in (1) Variant 2 form. None of these is capable of entering into the relationships which characterize nominals, and are therefore better classed as particles. Since the class of particles is small, ostensive listing of the patterns is sufficient.

5.2. Particles occupying whole phrase

Some particles are limited, either to non-initial, or to phrase-initial position only. There is however a sufficient number which appear in both positions to allow of comparison, and of a judgment as to whether the concept of initial modification applies.

5.2.1. Initial modification

Compare the patterns of the following particles, given firstly with pattern as occurring in post-peak position, and then with pattern

1. kála, kalá cannot be described in the same way, since the Class 12 prefix ka- found in other Bantu languages does not exist in modern Kongo.
of the item occupying an entire phrase:

...nāanga /nānga/ perhaps
...ozēvo /ozeţvo/ therefore
...kana /kana/ whether, before
...(ˈ)vo, vō /vō/ that

Where the non-initial pattern has high tone, that of the item occupying an entire phrase shows high tone, at the peak, at the corresponding point. The conclusions to be drawn from this are mainly negative:
it is quite certain that Rule 1 modification does not apply, since Rule 1 realization states that the first high tone is unrealized. Since no item contains more than one high tone, Rule 2 modification cannot be tested. An equally adequate description would be 'full realization', without modification. On the other hand, Rule 2 is not excluded, since it states that the 'second/only high tone is realized'.

Compare now the patterns of the following particles, which occupy an entire phrase, but never occur non-initially:

members of B/SC : yē and kaţnsi but
        iboosī and then

members of G/SC : șē it is now/then nkhetē before
        ngē it is possible avō if
        nē like

Particles in the left-hand column have only one vowel, which has high tone; this can therefore be taken as full realization. For items in the right-hand column, it cannot be assumed that the patterns represent full realization of all high tones.

In no case is initial modification positively indicated, but on the evidence, description under Rule 2 appears to be possible.

1. See Appendix X for a note on the particle kadi.
5.3. **Particles in initial sequence**

Illustration is limited to phrase-initial sequences composed of particles only, and of nominals and particles.

5.3.1. **Sequences headed by particle: composition**

A phrase headed by a particle may only contain particles, e.g.

\[ \begin{array}{ll}
G & X \\
\text{kana nkkut\textsuperscript{\textdegree} vo} & \text{even if, even though} \\
G & X \\
\text{kansel\textsuperscript{\textdegree} mphe v\textdegree} & \text{also although}
\end{array} \]

(tonetically marked)

Neither nominals nor verbals may follow a phrase-initial particle within the same phrase.

Where there is positive indication in such sequences, the evidence points to the operation of Rule 2 over the sequence as one item -- composition:

\[ \begin{array}{ll}
\text{\textdegree} & X \\
\text{ka\textdegreensi-mphe} & \text{but also cf. ka\textdegreensi but and mphe also} \\
\text{\textdegree} & X \\
\text{ka\textdegreensi-útu} & \text{but exactly cf. ka\textdegreensi but and útu just} \\
X & G \\
\text{na\textdegreenga-v\textdegree} & \text{except, unless cf. nánga, n\textdegreenga perhaps and v\textdegree that}
\end{array} \]

The second high tone of the sequence is realized, as in the nominal sequences described as composite.

It would appear that description in terms of composition can be applied to all particle sequences, although in many cases there is no positive indication. The peculiar behaviour of ('mphe and ('vo makes analysis difficult in some cases;
As previously stated, (')mphe has an associated high tone when the previous vowel has low tone, but a high tone vowel may serve for this. It is possible to describe the situation as fusion of high tones in such cases. Therefore one cannot test non-realization of high tone in yë and iboosï, as it can be tested in kaansi, where the high tone is not on the final vowel.

In no case is compounding indicated, although it is impossible to apply tests for compounding, as with nominal sequences. The criteria of morphological invariability, phrase-initial position over-riding requirements of the labelled (upper case) slot, and the lack of Variant1 / Variant 2 contrast, cannot be called upon. There is no case, either, in which a particle can be proved as having a basic tonal structure containing more than one high tone, so that the criterion of non-realization of more than one high tone will not serve.

Since where there is any positive evidence the composite sequence is indicated, it is justifiable to treat all particle sequences as composite, e.g. the following:

\[
\begin{align*}
\text{kaneele-vō} & \quad \text{although} \quad \text{kaneelē-mphe vō} & \quad \text{also although} \\
\text{kana-nkkutū vo} & \quad \text{even though}
\end{align*}
\]

kaneele never occurs without a following particle; its basic tonal structure cannot be established. kana has been shown to have no high tones, and vō has only one associated with it; the realization of the one high tone of the sequence can be described under concatenation or composition.

As in nominal sequences, the concatenate/composite distinction is masked, but there is never positive indication of concatenation.
5.3.1.1. Initial sequence and syntax

Despite some uncertainties of analysis, it would appear that particle sequences are characterized by composition. The second component of such a sequence may be either an X particle, or the second member of a G group.

The relationship between the components may be compared to that subsisting between the components of nominal composite sequences. There are, for instance, some particles which never appear without a following particle:

\[ \text{kanele-vō} \quad \text{although} \quad \text{kanele-mphe vō} \quad \text{also although} \]
\[ \text{kele-vō} \quad \text{if (unrealized condition)} \]

Neither kanele nor kele occurs without following particle, and in this respect, are comparable to the 'bound' nominal items. The sequence forms a whole which may be regarded as one item.

5.3.2. Phrase-initial sequence headed by nominal

For description of phrase-initial sequences, headed by a nominal, in which particles occur, all three terms are used:

concatenation: \[ \text{idyāssya vō} \quad \text{it is of putting that} \] (it is that)

composition: \[ \text{woonga-kāka kalōnda yōmmweēna} \]
\[ \text{it is fear only that he could experience with respect to it} \]
\[ \text{(he could only be afraid of it)} \]

compounding: \[ \text{kina kifwēte kkōsokā / ambuta-kāka} \]
\[ \text{which (= where) may sit / elders only} \]

Participation in such sequences is limited to members of the X and G/SCs.
5.3.2.1. Concatenation

Examples of concatenation are as follows.

\[ J \quad X \]
kwaye to ozevo to us therefore

\[ iA \quad X \]
Inthaangwa mphe it is the time also

\[ E \quad Q(G) \]
yóvvova vo and to say that

\[ P \quad X \quad iA \quad Q(G) \]
edyakyakí mphe/ icyássya vo another (point) also/is (of putting) that

Concatenation is not very common, and appears to be restricted to the X particles ozevo, nánga, (')mphe, and the G heads (')vo and kana. In the case of kana, however, no certain judgment is possible, since it has no high tones, and operation of a realization rule over two items of which the second is kana would produce no distinctive results.

5.3.2.2. Composition

Examples of sequences for which the composite description is suitable are very numerous, but of course are limited to cases where the particle follows a nominal in Variant 2 form, where Rule 2 operates:

\[ A \quad X \]
woonga-káka... it is fear only cf. woonga it is fear

\[ A \quad X \]
dyámmbote-beňí it is very good cf. dyámmbote it is good (of goodness)

\[ A \quad X \]
dyássívi-kíkilu it is very surprising cf. dyássívi it is surprising

\[ A \quad X \]
wangeembá-mphe he is also kindly cf. wangeembá he is of kindness

\[ iA \quad X \]
seóttala-káka it is now looking only (we shall just have to wait and see) cf. seóttala
5.3.2.3. **Compounding**

The term compounding is required for description of sequences such as the following, in which the nominal displays the characteristics of a subordinate component. The particle is then the dominant component:

\[
\begin{align*}
A & \quad C(c) \quad X \\
\text{kyaškala / kyankkobo-kīkilu} & \quad \text{it was/of strength very (very strong)}
\end{align*}
\]

\[
\begin{align*}
A & \quad C(c) \quad X \\
\text{mākalaanga / mambote-bešni} & \quad \text{they were/extremely good}
\end{align*}
\]

\[
\begin{align*}
L & \quad \text{i} & \quad Y(c) & \quad X \\
\text{kina kifwete kkosokā / ammb uta-kākā} & \quad \text{which should sit / elders only}
\end{align*}
\]

(where only elders may sit)

In these three examples, compounding is indicated, since the sequence fills a slot which requires non-initial phrasing unless filled by a compound. Both C and Y are 'non-initial' units, except when headed by a compound.

Compare also the following:

\[
\begin{align*}
P(c) & \quad X \\
\text{yau-kāka / iškala} & \quad \text{they only / are the ones who were cf. (o)yāau they}
\end{align*}
\]

\[
\begin{align*}
V(c) & \quad (G: A(c) \quad X \quad K) \\
\text{waš-vo / yandi-kākā kākala} & \quad \text{now that / it is he only that he was (since / he was all alone) cf. (e)waša ņ or (o)wašau now, thus and yandi it is he}
\end{align*}
\]

The P and V units here have been analyzed as compounds, since the first component in each case exhibits the lack of vowel length which is not found outside the sc. of a compound. The G:A unit in the second example has been similarly analyzed. All three are phrase-initial, but in this case the compound phrasing requirement coincides with that of the unit.

Particles also appear as dc. of triple compounds:

\[
\begin{align*}
\text{kuna-ssusi-kākā} & \quad \text{thither unexpectedness only (quite unexpectedly)} \\
\text{cf. kunā-ssusi} & \quad \text{thither unexpectedness (unexpectedly)}
\end{align*}
\]
As in the case of nominal sequences, the distinction between the sequences is sometimes masked.

When the initial item has only one potential high tone, sometimes either composite or compounding description serves:

\[
\begin{align*}
\text{iA} & \quad X \\
\text{indzo-kāka} & \quad \text{it is only the house} & \text{(composite)} \\
\text{or indze-kāka} & \quad " & \text{(compound)}
\end{align*}
\]

Where the particle is either (')mphe or (')vo, similarly the distinction is neutralized:

\[
\begin{align*}
\text{iA(c)} & \quad X \\
\text{idyau-dimos}'mphe} & \quad \text{it is it the same also (it's the same too)} & \text{(bi-component compound + 'mphe with high tone fusion)} \\
\text{or idyau-dimos}'mphe} & \quad \text{(triple compound, the high tone representing only that associated with 'mphe)}
\end{align*}
\]

Some cases analyzed as 'composite' under 5.3.2.2. might equally well be described as compounds. Moreover, again as with nominal sequences, two items may appear sometimes compounded and sometimes not:

\[
\begin{align*}
\text{A(c)} & \quad X \\
\text{nkkeento-kāka} & \quad \text{she's a mere woman (compound)} \\
\text{A} & \quad X \\
\text{cf. nkkehentō kāka} & \quad \text{she's only a woman (concatenate or composite)}
\end{align*}
\]

Composition is not required as a term when the initial nominal is under Rule 1 modification, where the first high tone is unrealized:

\[
\begin{align*}
\text{P} & \quad X \\
\text{oyāndī mphe / iwayēndaanga} & \quad \text{he also / was the one who would go}
\end{align*}
\]

The simpler description is in all cases preferred: concatenation, if there is a choice between concatenation and composition, and composition, if there is a choice between composition and compounding. One cannot say, as in the case of particle sequences, that there is an indication for one type of sequence only; for nominal + particle sequences, there is positive evidence for concatenation and for compounding; composition is rather more doubtful.
5.3.2.4. Initial sequence and syntax

The dubious status of composition makes the correlation of syntax and initial sequence rather more difficult for sequences involving particles than for those involving nominals only. I have however chosen to include the term, because it is the simpler description when compounding is not positively indicated.

Certain general patterns of behaviour emerge.

G particles tend to appear in concatenate sequence with the preceding nominal when they fill the Q or C slots, e.g. yēvvova vō 'and to say that'. At the other end of the scale, vo may appear as dc. of a compound, as in waũ-vo 'now that, since', which may be described as an appositional group.

X particles appear in all three sequences, but their occurrence in concatenation seems to be limited to (')mphe 'also', ozeévo 'therefore' and náanga 'perhaps'. Particles such as káka 'only', beéni 'much, greatly' and kíkili 'very' only appear in composite or compound sequence.

There is thus variation among the particles as to the sequences in which they may occur: (')mphe apparently occurs in all three; káka is restricted to two; ozeévo even more restricted, to concatenation only.

One cannot therefore make a general statement concerning the correlation of initial sequence and syntactic relationship between the components of the sequence, stating the latter in terms of labelled slots. There would appear to be further relationships possible, within the broader categories indicated by the labels, and not all members of the same SC are capable of entering into all of these further relationships.

As in the case of nominals, where members of groups might appear in three different sequences, but still as a group occupy

1. No decision is possible on the Xa particle e? which like kana contains no high tones.
slots under the same general label, and as individual items occupy the 
same position in the group, so also with the particles. A member of the 
X/SC may enter into one of three relationships with a preceding 
nominal: the loose relationship of which concatenation is the 
exponent, the closer cohesion indicated by composition, such that the items 
behave as one, and the relationship of dominance, in which the preceding 
nominal is dependent on the particle, and whose exponent is compounding. 

Not all members of the X/SC are capable of entering into all three 
relationships. Similarly, the G head vo seems to be limited to the 
two extreme relationships of concatenation and composition. The parallel 
to this in nominal groups is the Pa head, which appears to be likewise 
limited to the two extreme relationships.

5.4. Summary

Particles may be described using the techniques developed for nominals, 
although not all are required. Tone-class and tono-morphological variation 
are unnecessary. Initial modification is limited to Rule 2, 'second/only 
high tone realized'. Initial sequences can be described in the three 
terms of concatenation, composition and compounding. Sequences consisting 
solely of particles are described as composite only.

As in the case of nominals, the three sequences are regarded as 
exponents of syntactic relationships obtaining among the components, which 
are not accounted for by the labelling of slots, although there are certain 
tendencies, e.g. for X items to appear in composition, especially with

1. The two examples given under 2.1.4.1. are respectively of concatenation 
and compounding:

\[
\begin{align*}
&P_A \quad Pa \quad K \\
&\text{èkkuma} / nkh\text{i} \text{ omuúntu kafwéte}... \quad \text{the reason} / \text{is what that a man should}...
\end{align*}
\]

\[
\begin{align*}
&V(c) \quad Pa_1 \text{ii} \quad K \\
&\text{vaav’-Ákulu éteto básadilaanga}... \quad \text{when that our ancestors used to practise}..
\end{align*}
\]

(cited on p. 69).
preceding Beta or G particle, and in compound sequence with preceding nominal. A particle however never appears to have a dependent relationship with a following particle, although nominals may have a relationship of dependence upon a particle. There are particle dominant components of compounds, but no particle subordinate components.
Chapter 6

VERBAL PATTERNS

6.0. Introduction

In this chapter are described the patterns of pure verbals and dependent nomino-verbals (relatives). While these present problems specific to their particular categories, it will be seen that the techniques of description developed for nominals, and found to apply also to particles, are equally applicable to the verbal category and to the hybrid nomino-verbals. Sections 6.1 - 6.2 deal with single-radical verbal structures; Section 6.3 is devoted to those with more than one radical.

Some of the features and problems encountered in attempting the description of verbals are — perhaps rather curiously — more like those of particles than of nominals. For example, pure verbals can fill only the A slot, and are thus ipso facto always phrase-initial, like some of the particles. Further, there is no question of tono-morphological variation in contexts of maximum differentiation, of the kind established for nominals, and this again is a feature which verbals share with particles. It will be seen that there are no instances of verbals requiring description by means of Rule 1; as for particles, the only initial modification required is Rule 2. Finally, there are no cases of verbals as subordinate components of compounds. The emergence of these parallels between verbals and particles has been one of the most unexpected aspects of this study.

Nomino-verbals, unlike pure (A) verbals, occur in both phrase-initial and non-initial position, and their patterns in these contexts can then be compared, to see whether phrase-initial patterns can be described in terms of modification of a basic tonal structure, fully realized after the peak. (Attention in this chapter is confined to dependent nomino-verbals: DNVs.)
However, it is not justifiable to argue from the patterns of DNVs to those of pure verbals in the A slot. The following pair of examples demonstrates this:

\[(G: A ) \]
\[a^6 / ozolele \text{ if / he wishes} \]

\[(G: IA \quad L ) \]
\[a^6 / seyandi ozolele \text{ if / it is now he who wishes} \]

The L verbal ...ozolele occurs after the peak, and is therefore in the context of full realization of potential high tones; it can then be described as having no potential high tones, since there is no high tone realization. The A verbal /ozolele/ on the other hand contains one high tone, at peak pitch, therefore the realization of a high tone. It is not known at this stage whether or not there are any further (unrealized) potential high tones in the item, but it is certain that there is at least one.

There is no morphological difference between the A and L verbals, but there is certainly a difference of tone-pattern. Moreover, it is not of the kind which can be described in terms of an initial modification of the L pattern when the verbal functions as A; ozolele cannot be regarded as an initially modified variant of ozolele under the present realization rules. Rather, the best description seems to be in terms of a difference of basic tonal structure, not of different realization of an identical basic structure.

It is therefore more satisfactory to treat pure, or A verbals, separately from the dependent nomino-verbals, although comparison of the two sets of patterns at a later stage is interesting.

The morphology of verbals is described in Appendix VII, in which the tense numeration used in this chapter is also set out.

---

1. See under 6.2.1. below, p.257.
Another departure from the ordering of presentation used up to now is that sequences including verbals are treated in the separate category sections; sequences including an A verbal and a nominal, for instance, are described in the A verbal section. The sequences in which each category may participate are not the same; an L or K nomino-verbal may be preceded by another item within the same phrase, and indeed in all but a few cases is so preceded, while an A verbal never stands in any but phrase-initial position.

6.1. Pure (A) verbals

Pure verbals fill only the A slot, and are always phrase-initial. They may either occupy an entire phrase, or be followed by another item, or more than one item, within the same phrase.

6.1.1. Establishing basic tonal structure

Since A verbals are always phrase-initial, and it has been demonstrated that initial modification applies to both nominal and particle categories, the possibility of such modification for verbals also must be borne in mind. The A verbals are then in a peculiar situation: under the terms of the description so far, they are likely to be subject to initial modification, but there is no 'context of full realization', since they never occur after the peak.

There are however some cases in which full realization can be assumed. If, for instance, the first vowel of the verbal has high tone at peak pitch, the remainder of the item, hence the whole item, may be regarded as in the context of full realization, and the actual tone-pattern can be taken as representing the basic tonal structure, with maximum realization of high tone potential.
In practice, such forms never contain more than one high tone:

A
mākalaanga they were
A
wāsala he worked

In these cases the verbals are occupying an entire phrase.

One conclusion which can be drawn from these patterns is that, if initial modification applies, it cannot be under Rule 1, i.e., non-realization of the first potential high tone. It has been found so far that all items filling the same slot are subject to the same initial modification; the further conclusion is therefore that Rule 1 modification does not apply to any verbal in the A slot. Description becomes impossible unless this principle is followed.

Compare now the following:

(G: A )
avō / ozolele if / you wish

Here the A verbal, /ozolele/, contains no realized high tones; like the two examples immediately preceding, it occupies the entire phrase. Since the operation of Rule 1 on items in the A slot has been ruled out, the conclusion is that /ozolele/ is the realization of a basic structure containing no potential high tones.

Verbals thus differ from nominals in having within their range of basic tonal structures some which have no potential high tones. (2)

There are then two kinds of case in which the pattern of an A verbal can be regarded as representing full realization of the basic tonal structure:

1. It has already been seen that nominal items in the A slot, whether stable or stabilized (iA), are subject to Rule 2, not to Rule 1.
   See 4.1.2-4., esp. pp. 184 and 188 (A) and 185 (iA).
2. This is a further point of resemblance between verbals and particles.
(i) those in which the first vowel is at peak pitch
(ii) those in which the verbal, occupying the whole phrase, has no realized high tones.

It is noted also that cases under (i) never contain more than one realized high tone.

Compare now the following:

A makalaanga they were
A C makalaanga-məmmbo they were good
and A wasala he worked
A Q- wasala-ss̩̬lu he did (lit. worked) some work

In the two cases where the verbal is followed by a C or a Q- item, within the same phrase, there is no realized high tone in the verbal. It is justifiable to describe these as cases of composition, i.e., of non-realization of the first high tone potential under Rule 2, the two components being treated tonally as one item. The verbal is accordingly marked with a subscript dot at the point corresponding to that of the realized high tone in the verbal occupying the whole phrase.

It is found that description in terms of composition is applicable in all cases where
a) the A verbal can be established as having only one potential high tone and
b) the following item is a nominal filling the C or Q- slots.

This fact can be turned to use when examining the patterns of A verbs which contain peak pitch at a point other than on the first vowel:
A
wabonga he took

A Q-
waboonga mabayά he took some planks

(both examples tonetically marked only)

waboonga contains only one realized high tone, but it cannot be deduced from this that there is no other potential high tone. However, when it is followed by a Q- item, such as mabayά, the verbal shows no realized high tone. It has been shown that comparable A : Q- sequences can be described in terms of composition, under Rule 2; if then we apply the description here, the conclusion is that wabonga has only one potential high tone, realized in /wabonga/. Hence the analysis of the second example is

A Q-
waboonga-mabayά he took some planks

Another case in which it is at first sight difficult to establish the basic tonal structure is that of

A
bettaambulaangά they receive (tonetically marked)

Occupying an entire phrase, the verbal shows high tone at peak pitch on the final vowel. Since initial modification under Rule 2 is suspected, there is a possibility that there is a further potential high tone in addition to that realized at peak pitch.

Compare now the pattern of this item when a Q- nominal follows:

A Q-
bettaambulaangά mmbόongo they receive money (or, goods)

(tonetic marking only)

The sequence here cannot be described in terms of composition; mmbόongo occurs totally after the peak.

In the description of nominal composite sequences, this kind of pattern was found for structures characterized by composition, when the first component contained two potential high tones. Composition, where
such a description is appropriate, characterizes the sequence A : Q-,
the Q- item showing realization of one high tone at peak pitch.

The pattern of bettaambulaangã can therefore be covered by the description,
if it is taken to have a basic tonal structure containing two high tones;
in all cases, however, Rule 2 operates, producing realization of the second
(1) high tone only. The choice of position for the subscript dot can only
be arbitrary; I have chosen to place it under the first vowel of the radical:

\[
\begin{array}{c}
A \\
\text{bettaambulaangã} \\
\end{array}
\]

they receive

As in the case of nominal composites, the Q- item may be written
hyphenated, but there is no exponent of composition here:

\[
\begin{array}{c}
A \\
\text{bettaambulaangã-mmboongo} \quad \text{or} \quad \text{bettaambulaangã mmboongo} \\
\end{array}
\]

they receive money (goods)

In these ways the basical tonal structure of A verbals can be
gradually built up.

The results of the process are given in Appendix VIII. There are
many features of interest in the patterns, notably in the behaviour of
verbals with and without object infix, but no further problems of
description arise from the patterns of single items, occupying a
whole phrase.

1. The radical of this verbal appears in a Class 15 INV containing
two high tones: ọt-tamba /t-tambulá 'to receive'. One cannot however
argue from the basic structure of an associated INV, any more than from
those of corresponding DNVs.
There is however a difficulty posed by some verbals followed by an object substitute:

A
bakəangaanga they used to bind

A  Qs
bakəangaanga-kɔ they used to bind it (leg, ekú-ulu Class 15 or 17)

Here it would seem that there is a second high tone, associated with the presence of the object substitute, and realized on it. The sequence is analyzed as a composite, since bakəangaanga... has no realized high tone. Composition characterizes A : Qs, as well as A : Q-.

Compare however:

A
bettaambulaanga they receive

A  Qs
bettaambulaanga zɔ they receive them (goods, émm-boongo Class 10)
(tonetic marking only)

There is a choice of description here. The verbal with following object substitute may be regarded as having non-realization of two potential high tones: bettaambulaanga-, an analysis reminiscent of the subordinate component of a compound. This verbal however displays none of the other characteristics of the s_c. of a compound; in particular, there is no reduction of vowel length, and the geminate -tt- displays length. Moreover, in no other case is it necessary to describe an A verbal as the s_c. of a compound. I therefore prefer a description in terms of an exclusion of three potential high tones in the basic tonal structure, the verbal and the object substitute being together regarded as one item, not merely in composition.

1. See 6.1.4 below, p. 252.
2. A glance at the patterns of Tense 2 in Appendix VIII will show that there appear to be similar exclusions, of more than one high tone, in the patterns with object infix: yanšta I carried, yabanšta I carried them.
Thus: bətqæmbulaangazə they receive them

6.1.2. Initial modification and syntax

Despite the fact that there is no context in which a pure verbal can appear in other than phrase-initial position, it would appear justifiable to describe the patterns as initially modified realizations of a basic tonal structure. The relationship between initial modification and syntax can then be stated in the same terms as before: modification is a function of the occurrence of the basic structure in phrase-initial position, the position being determined by the fact that the item fills the A slot.

One cannot, of course, speak of a tono-morphological 'variant', there being no variation of pure verbals, but it is relevant to note that A verbals are classed with Variant 2 nominals, as part of the SC of the A unit. They also share with the Variant 2 nominals the subjection to Rule 2 realization in initial position. It would therefore be possible — though not very useful — to regard pure verbals as in the category of 'Variant 2', with Variant 1 lacking. This would certainly have the advantage of keeping the statement of the relationships between tono-morphological variant, initial modification and syntactic slot identical for both categories, but empty classes are to be avoided if possible. For nominals with morphologically invariable pre-prefixes, this procedure was adopted, there being more justification, as is set forth in 4.1.4., p. 189.

1. Frustra fit per plura quod potest fieri per unum, Odo Rigaldus, Commentarium super Sententias, MS Bruges 208, fol. 190a., according to Boehner, the earliest formulation of 'Ockham's razor'. Boehner, Ockham, Philosophical writings, Nelson, London, 1957, fn. p. xx.
6.1.3. Type-classes

The Class 15 INVs containing verbal radicals of any particular length are distributed between a maximum of two TCs. -C(V)- radicals are confined to TCI. The 'long vowel' analysis is useful for some cases here, since it results in a simpler statement. The distribution is summarized below.

<table>
<thead>
<tr>
<th>Radical Shape</th>
<th>TCI</th>
<th>TCly</th>
<th>TCIII</th>
</tr>
</thead>
<tbody>
<tr>
<td>-C(V)-</td>
<td>-w-</td>
<td></td>
<td>hear</td>
</tr>
<tr>
<td>-CV(:)C-</td>
<td>-tal-</td>
<td></td>
<td>look(at)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-sev-</td>
<td>laugh(at)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kal-</td>
<td>be</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-keeng-</td>
<td>guard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-soomp-</td>
<td>borrow</td>
</tr>
<tr>
<td>-CV(:)(C)VC-</td>
<td></td>
<td>-sadis-</td>
<td>help</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kiyil-</td>
<td>visit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-viingil-</td>
<td>wait for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-viingil-</td>
<td>replace</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-siis-</td>
<td>leave(tr.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-vaav-</td>
<td>require</td>
</tr>
<tr>
<td>-CV(C)VCVC- and</td>
<td></td>
<td>-sungamen-</td>
<td>remember</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-vilakan-</td>
<td>forget</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-bookel-</td>
<td>name</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-lwaakil-</td>
<td>arrive at,for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-monaan-</td>
<td>see each o.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-sukwill-</td>
<td>wash with</td>
</tr>
</tbody>
</table>

In addition there are the radicals -in- 'be' and -inin- 'be for', which have no associated INVs.

This classification is to some extent reflected in the verbal patterns:

- wǎtala he looked | cf. ót-tala /t-tála TCI

but wasēva he laughed | cf. os-sevá /s-sevá TCIII

1. See the list of Class 15 INVs under 3.2.3.5., and discussion of exclusions, esp. p. 152.
otādidī he has looked (INV in TCI)
osevēle he has laughed (INV in TCIII)

There is not however always such a difference correlatable with membership of a different TC:
nthadiddi I have looked (INV in TCI)
ntsevele I have laughed (INV in TCIII)
katala that he may look (INV in TCI)
kaseva that he may laugh (INV in TCIII)

Other distinctions, correlatable with e.g. the occurrence of 1st/2nd as against 3rd person subject prefixes, are likewise not always maintained throughout the verbal system:
nthadiddi I have looked but yūtala I looked
otādidī he has looked but wātala he looked

In the case of the radical -kal- 'be', the correlation of tense pattern and TC is not as for other radicals. In some forms the patterns are those associated with TCI radicals, while the corresponding Class 15 INV, and some of the pure verbal patterns also, are those associated elsewhere with TCIII radicals:

okkalā to be cf. os-sevā to laugh (TCIII)
but öt-tala to look (TCI)
okkalānga he is cf. ossevānga he laughs
but ottalaanga he looks

In these cases -kal- displays patterns associated with TCIII. Contrast:
wākala he was cf. wātala he looked (INV in TCI)
but wasēva he alughed (INV in TCIII)
okōdi he has been cf. otādidī he has looked (INV in TCI)
but osevēle he has laughed (INV in TCIII)
-in- 'be' and -inin- 'be for' appear only in one tense (Tense 1, with Present reference, with/without continuative suffix), and have here patterns similar to those associated with TCIII radicals:

- **winà(anga)** he is cf. ossevà(anga) he will laugh/laughs (INV in TCIII)
  - but ottàlaangà he looks (INV in TC I)
  - öttala he will look

- **winìnaanga** he is for cf. ossevèlaanga he laughs for (INV in TCIII)
  - but ottàdîlaangà he looks at for (INV in TC I)

There are however no corresponding INVs.

6.1.4. **Initial sequences**

Phrase-initial sequences in which the first item is an A verbal may be described in terms of concatenation or composition:

- **A** Q+
  - batwasaang1 omádyà... they used to bring the food (concatenate)

- **A** Q-
  - waboonga-mabaya. he took some planks (composite)

It has not proved necessary to describe in terms of compounding, except for the rather doubtful case of A : Qs discussed above, at the end of 6.1.1.

6.1.4.1. **Concatenation**

Concatenation, in which the initial modification operates on the first (verbal) item of the sequence only, characterizes A followed by an item which is a Variant 1 nominal, heading e.g. Q+, B, F+, S+ or V+.

- **A** Q+
  - batwasaang1 omádyà máau they used to bring their food

- **A** B Q-
  - wasìmunwinaang1 omwáana tusáánsu she used to tell the child stories

1. For tense numeration see Appendix VII.
In all these examples, the verbal contains only one potential and realized high tone; being the first of the phrase, it accordingly takes peak pitch.

Where the verbal contains no potential high tones, the first high tone of the following nominal will take peak pitch:

\[(G: A \text{ } Q+)\]

avö / wamon' ŋnikkeénto if / you should see the woman

A F+
ndsölele ŋvvutuka I wish to return

When however the verbal contains two potential high tones, the concatenate/composite distinction cannot be shown:

A B Q+
dimmweesaang' ñwaantu ŋmpahi it causes to be experienced to people

the distress (causes to be experienced by...

(dimmweesaangă + ñwaantu)

A Q-
cf. yivvåanaangă ntsaása they give a significance

the latter example being from a set which regularly shows composition where it is overtly marked.

---

1. The Class 7 subject prefix kv- in the verbal kyakilöongaang(s) is in agreement with kí-nn-dende 'child'.
6.1.4.2. Composition

Demonstrable composition characterizes sequences in which the verbal heading the phrase contains up to one potential high tone, and is followed by any item other than a Variant 1 nominal. The range of items of this kind is:

1) nominals and DNVs of unit SCs of the 'minus' group: Q-, F-, S-, V- and C
2) pronouns filling M and Na
3) particles filling X.

A  Q-  wasala-ssalu  he did some work
A  F-  ozolele-vvütuká  he wishes to return
A  S-  wina-mündzo  he is in the house
A  C  mákalaanga-m ámbote  they were good
A  M  C  winaanga-kwañndi kym ámbote  he is perfectly all right
A  Na  wayenda-yañndi  he went with her
A  X  N  wamokena-káká  y ámbwa  he conversed only / with the dog

The case of verbals containing no potential high tone is interesting. Here the realization rule 'second/only potential high tone realized', operating over the two components of the sequence as over one, produces realizations as follows:

a) if the second component contains only one potential high tone, this is realized:

\[(G: A  Q- )
\]

avó / wamona-meengá  if / you should see blood

A  F-  ndzolele-kweända  I wish to go

1. Illustrated under 6.2.4.2, wina-wàkubama 'he is ready' (p. 263).
b) if the second component contains two potential high tones, the second only is realized:

\[
(G: A \text{ } F-\text{avò / wamona-nk’entò} \quad \text{if / you should see a woman}
\]

\[
A \text{ } F-\text{ndzolele-vvütuk’à} \quad \text{I wish to return}
\]

c) if the second component has only one potential high tone, and is followed by an item filling one of the slots listed above, the first potential high tone of the third item is the first realized, i.e., there is composition over three items:

\[
A \text{ } F-\text{-Q-} \quad \text{ndzolele-ssyumba-yyyyunga} \quad \text{I want to buy a rain-coat}
\]

6.1.4.3. Initial sequence and syntax

As in the case of nominals, the distinction between concatenate and composite is masked in cases where the first item has two high tones, but the correlation of initial sequence and syntax can be clearly established. An A verbal followed by any unit whose SC consists of Variant 1 nominals is concatenate; A followed by a ‘minus’ unit, or by M, Na or X (except Xa), is composite. Composition may extend beyond the first two items, when the verbal has no potential high tones, and the third component is in a relationship with the second of the kind expressed by composition.

Mention should be made here of the Xa particle e? As described under 5.1., this particle has no associated high tone in most cases, It is therefore impossible to judge whether the sequence A verbal + e? should be regarded as concatenate or composite, but the concatenate description is adequate. An associated high tone is however found in the structure A verbal + e? when it can be established that the preceding

1. P. 229, and reference in fn. 3.
section of the phrase, from the beginning, has no other potential high tone. E.g.

\[ \begin{align*}
A & \text{numweene you have seen} \quad \text{but} \quad A & \text{numweene} \ e? \text{ have you seen?} \\
A & \text{cfsala} \quad \text{you will work} \quad \text{and} \quad A & \text{cfsal} \ e? \text{ shall you work?}
\end{align*} \]

The pattern of \( e? \) then must be described in terms of a conditioned variation of basic tonal structure, which is outside the concatenate/composite distinction (1).

6.2. **Dependent nomino-verbals (L and K verbals)**

Dependent nomino-verbals (DNVs) occur in post-peak position, in the context of maximum realization of potential high tone. They may also, when stabilized, function as \( iA \), and in addition a restricted set of the L verbs (Tense 2 only) may function as \( A \) without the addition of a stabilizing pre-prefix. It is therefore possible to compare the patterns of DNVs in much the same way as for nominals.

6.2.1. **Basic tonal structure of DNVs**

Where the DNV is totally after the peak, the pattern is regarded as showing full realization of any potential high tones. A major point of interest is that, as for pure verbals, there are forms without high tone potential:

\[
\begin{align*}
(G: & \quad iA \quad L ) \\
\text{avö / seyändi ozolele if / it is now he who wishes} & \quad (\ldots ozolele) \\
(G: & \quad iA \quad K ) \\
\text{avö / sedyödyo kaveenge if / it is now this that he has done} & \quad (\ldots kaveenge)
\end{align*}
\]

1. This is not the only case of its kind. Cf. the conditioned appearance of a preceding high tone in DNVs, under 6.2.1 below, p. 258.

2. For tense numeration, see Appendix VII.
The patterns of DNVs, abstracted from the post-peak context, are set out in Appendix VIII. A further point of interest is that \( \overline{L} \) verbals are always morphologically identical with the corresponding \( \overline{A} \) (pure) verbals, but may sometimes differ in respect of tonal structure:

\[
\begin{align*}
\text{A} & \quad \text{he wants} & \quad \text{L} & \quad \text{he who wants} \\
& \quad oz\dot{i}lele & \quad ...ozolele & \quad (\text{Tense 4})
\end{align*}
\]

\( K \) verbals may differ morphologically from the corresponding \( A \) and \( L \) verbals, and may or may not differ tonally:

\[
\begin{align*}
\text{A} & \quad \text{he wants} & \quad \text{L} & \quad \text{he who wants} & \quad \text{K} & \quad \text{which he wants} \\
& \quad oz\dot{i}lele & \quad ...ozolele & \quad ...kazolele \\
(T\text{ense 4}) & \quad \text{he who wants} & \quad \text{he who will see} & \quad \text{...which he will see} \\
& \quad ômm\dot{a} & \quad ...ômm\dot{a} & \quad ...kam\dot{m}\dot{a}\dot{\text{n}}a \\
(T\text{ense 1}) & \quad \text{he will see} & \quad \text{he who will see} & \quad \text{...which he will see} \\
& \quad wXva\dot{a}ng\dot{a} & \quad ...wavaanga & \quad ...kavaanga \\
(T\text{ense 2}) & \quad \text{he made} & \quad \text{he who made} & \quad \text{which he made} \\
& \quad wXva\dot{a}ng\dot{a} & \quad ...wavaanga & \quad ...kavaanga
\end{align*}
\]

Comparison of the fully realized patterns of \( L \) and \( K \) with those of the stabilized forms filling \( iA \), and occupying an entire phrase, shows that the latter can in many cases be described as initially modified realizations of the same basic tonal structure, under Rule 2.

Where the fully realized pattern shows one high tone, the stabilized DNV shows realized high tone at the same point:

\[
P(c) \quad K \\
kina-ky\dot{\text{ăng}}\dot{\text{t}}\dot{\text{e}}te \quad k\dot{\text{ax}}va\dot{\text{a}}ng\dot{a} \\
\text{that first one that he made}
\]

\[
P \quad \text{cf. edy\dot{g}\dot{a}dI / ik\dot{a}va\dot{a}ng\dot{a}} \\
\text{this / is what he did}
\]

When however the fully realized pattern shows two high tones, the phrase-initial stabilized form shows only the second realized:
Q(c) K
konso-ški belóombaŋa anything they ask for
[1K]
ibellóombaŋa it is what they ask for

'Second/only potential high tone realized' is an adequate description of both patterns of the [1K] verbals.

There is however a different situation when the 'fully realized' pattern contains no high tones:

[1A] K
idypošdyo kazolele it is this that he wants
[1K]
Ýkazolele it is what he wants

Here the phrase-initial form, with pre-prefix 1-, shows high tone on the pre-prefix. As in the case of e?, the difference is best described as a conditioned variation of the basic structure, not as different realizations of the same basic structure.

This presents a problem of description. Are the two variants to be classed as tono-morphological variants of the same kind as those of nominals? And if so, should one set up a scheme of SC sets for verbals, on the lines of the nominal sets, or create a different arrangement?

It is quite possible to set up a scheme of SC sets like those of nominals, (1) for all types of verbals, including the nomino-verbals, but in each case there is only one 'variant', not necessarily classed with the variant of the same number in the nominal sets. The SCs of which the verbals form part, or whole, are already sufficiently defined without recourse to this device.

1. E.g., Set (i) : verbals without object infix or pre-prefix
   Set (ii) : verbals with object infix but no pre-prefix
   Set (iii) : verbals with stabilizing pre-prefix.

   There is however no unit requiring Set (ii) only, as is the case with nominals.
No statement, however, relating the patterns of ...kazolele/îkazolele
is any simpler than the plain observation that the unstabilized pattern
is different from the stabilized one, nor does it add anything to that
part of the description dealing with relationship between tonal behaviour
and syntax. I have therefore chosen not to put verbals into the
Procrustean bed of tono-morphological variants and SC sets as
set out for nominals. Each occurrence has a basic tonal structure,
which can be regarded as 'realized under Rule 2 if in phrase-initial
position, but nothing is gained by attempting to relate the
variants, such as regarding L verbals as 'Variant 2' (since they form
part of the A and C/SCs as well as the L/SC), and K as (perhaps)
'Variant 1'.

6.2.2. Initial modification and syntax

In view of what has been said in the previous section, all that
need be added here is that initial modification is not regarded as
directly dependent on the syntax, but is a function of the basic
tonal structure in phrase-initial position, as in all other cases.

6.2.3. Phrase-initial sequences headed by DNV

A DNV may not occur in phrase-initial position unless filling
the A slot. In all cases but one, the DNV is restricted to the iA
sub-division, i.e., has a stabilizer. L verbals of Tense 2, the
Narrative Past, may however fill A without pre-prefix.

As with pure verbals, only the two initial sequences of
concatenation and composition are found:

\[
\begin{align*}
\text{iL} & \quad \text{S-izaban\text{\textae}taanga ku\text{\textae}na} \quad \text{they are the ones who took them there (concatenation)} \\
\text{L} & \quad \text{K w\text{\textae}kubama-njin\text{\textae}} \quad \text{it is ready that I am (composition)} 
\end{align*}
\]
6.2.2.1. Concatenation

It appears that, when there is distinction between concatenation and composition, a stabilized L or K verbal is always in concatenate sequence with the following item filling a non-initial slot, whatever the nature of the unit otherwise. Both plus and minus units are found in concatenate sequence with a preceding verbal, as also other units which are regularly in composition with a preceding A verbal which is not iA:

P [iK] F*  
F* : edyəadỳ / ikavəavilwaang' évvaanga this / is what she was required to do

Q- [iK] L ii Y ii  
Q- : ibaləŋgokelaanga mawそonsono mafwéte zzáay' émwaan' ånkkeénto it is (there) that they learnt everything which a young lady ought to know

S- [iL]  
S- : izabanátaanga kuuna they are the ones who took them there

X [iL]  
X : ivádiilaanga mph' émbuta it is where the elder also ate

This is a new kind of situation; the type of sequence is apparently determined by the first (verbal) component, by the fact that it is iA. Hitherto concatenation has been describable as required by the relationship between the initial components of the sequence, the other exponent of the relationship being the type of the second unit. Contrast the new position with, for instance, that of the pure A verbals, where the A : plus unit requires concatenation as an exponent, while the A : minus unit requires composition. Both plus and minus units, however, are in concatenation when A is filled by a stabilized DNV. Perhaps even more striking is the contrast with stabilized pure nominals filling iA; these appear, not only in concatenation and composition, but as s,c's of compounds also.
6.2.3.2. **Composition**

Composition of a phrase-initial DNV is confined to L verbals of Tense 2, functioning as A without stabilizing pre-prefix. These are invariably followed by K within the same phrase, although not necessarily immediately:

\[
\begin{array}{c}
\text{L} \\
\text{K}
\end{array}
\]

\text{wākubama-njinā} \quad \text{it is ready that I am}

(lit. it is one who has become prepared...)

\[
\begin{array}{c}
\text{L} \\
\text{X} \\
\text{K}
\end{array}
\]

\text{wāsaangaana-beēni winā} \quad \text{it is very mixed that it (colour) is}

Here the range of units which may occur immediately after \text{L} is very restricted; but it will be noted that X following an A verbal is also always in composition with it, where composition is demonstrable.

6.2.3.3. **Initial sequence and syntax**

As in the case of pure verbals, the relationship between initial sequence and syntax is quite clear. \text{IL} and \text{IK} apparently have a special syntactic status, since whatever unit follows, they are always in concatenate sequence with it. By contrast, \text{L} is always in composite sequence with what follows, and as far as can be seen, in this it follows the pattern of other composite sequences, the composition being determined by the relationship subsisting between it and the following unit. It may however be added that, as \text{L} never occurs without a following unit in the same phrase, it may also be regarded as having somewhat of a special status; there are no other units filled by verbals which require non-final position in a phrase.
6.2.4. Phrase-initial sequences with DNV as non-initial component

A DNV which is not filling the A slot never occurs in phrase-initial position. DNVs are however found as second components in concatenate and composite sequences, and as dominant components of compounds, whether as second or third component. It appears that they do not occur as subordinate components.

6.2.4.1. Concatenation

Concatenation of a DNV with a preceding phrase-initial item is limited to two types of case:

i) where the preceding item is a stabilized nominal, i.e., functions as iA

\[ iA \quad \underline{K} \quad Q(c) \]

\( (i) \) Inthaangwa kávewaanga / llekwa-yákkaka

it is the time when he would be given / other things

\[ iA \quad \underline{L} \quad S_{-} \quad ii \quad iii \]

Îttadi wináanga múntsì anttòto waNgóla

it is the metal which is under the soil of Angola

\[ A? \quad \underline{K} \quad Q(G) \]

\( (ii) \) awěyi dyatônerwaanga vó it is how that it was recognized (for) that (?)

\[ A? \quad K \]

nkхи ovváangaangsì it is what that you do? (what do you do?)

\[ A? \quad L \]

náni okwiíza? it is who who will come? (who will come?)

Concatenation is not found when the preceding item is any other kind of stable nominal but a question item; see further below, under 6.2.4.2.
6.2.4.2. **Composition**

Composition characterizes the sequences A : L and A : K (including Ka), when the A component is neither iA, nor a question item:

A  K
mądy-a-kądyą it is food that he ate

A  K
mąndzə-o-keną it is in the house that he is

A  L
nttəla-usuŋkaąną it is stature which comes to an end

Further, the sequence A : C with a DNV of the I/SC filling C is also composite:

A  C (L)
wıną-wąkubama he is ready (a person who has become ready)

Particularly worthy of mention is the fact that Ka as second item in a phrase-initial sequence is always in composition with immediately preceding A:

A  Ka
ssęwą-wasęwaąnga it is being laughed at that she was laughed at

Ka never occurs after a stabilized or question item.

6.2.4.3. **Compounding : DNV as dominant component**

By far the greater number of examples of L and K verbals in the data are found as dominant components of compounds, with nominal — and especially pronominal — subordinate component preceding.

P  A  V(c)  L  Q-
edyąadı / divvąangamaąą tongkumbu-myąkoondwa nthonkálntu

this / is done / times which lack number (times without number)

cf. ũnk-kumkabh / nk-k_contr times

The compound, with L as d_c., is here heading a V unit.
The sc. in this case is an independent nominal, but pronominal sc's are particularly common:

\[ V(c) \quad K \quad F-\quad Q+ \quad i\!i \quad i\!i \]
\[ vaava-kamana \quad ttelam\'e\quad \'endzo\quad landi\quad antethe \]

here that he finished setting up his first house

(when he had... cf. (s)vava)

The dc. of the compound here is a K verbal; as in the previous example, the compound heads V.

\[ A \quad Q-\quad i\!i(c)\quad L \]
\[ waboonga-mabay\; / \; mena-makala \quad he\; took\; some\; planks\; / \; those\; which\; were \]
\[ P\quad i\!i(c)\quad K \quad A \quad C \]
\[ qyyaka\; / \; kina-kavaanga\; / \; kyakala-kyangolo \]

the fence / that one which he made / was of strength

\[ P(c)\quad L\quad i\!A \]
\[ edi-dyal\; sandilaanga\; / \; idyattwaas\; \]

this which used to follow / is of bringing

(what followed was that they would bring)

The great frequency of 'börken groups' associated with the occurrence of

\(1\)

L and K verbals was noted in Chapter 2. While it is certainly not obligatory for a K or L verbal to be preceded by a pronominal, it is equally true that the majority of them are so preceded. In a random sample of running text, L and K as dc. of a compound outnumbered those not in compounds by more than four to one. It is sometimes possible to reflect the distinction in the English glosses, more easily for K than for L, however:

\[ P(c)\quad K \quad\]
\[ ski-kyantethe\; kavaanga\; the\; first\; one\; he\; made\; (K\; not\; in\; compound) \]
\[ P\quad i\!i(c)\quad K \quad\]
\[ qyyaka\; / \; kina-kavaanga\; the\; fence\; / \; (the)\; which\; he\; made \]

or, that he made (K is dc. of compound)

1. See for instance 2.3., pp. 120-l.
For L however the difference can only be indicated by the rather clumsy circumlocutions: 'the one/s who/which, some which/who/that'

for the compound:

\[
P_{(c)}^{(L)}
\]

asadisi-ákkaka ákalaanga other helpers who were (L not in compound)

\[
A_{(Q-)}^{(L)}
\]
wabongana-mabaya / mena-makala he took some planks / some which were

or, ones which were (L dc. of compound)

L and K verbs are also found as dc's of triple compounds:

\[
V_{(c)}^{(L)}
\]
ttuuka-kuna-kuttuká to come from there

\[
S_{(c)}^{(K)}
\]
muna-mená-kawiidi in there those which he has heard

(in what he has heard)

L in the first, and K in the second example is in agreement with the second sc. of the compound, that immediately preceding the verbal.

When the verbal is of the kind which has no high tone in the basic pattern abstracted from post-peak occurrences, there is an associated preceding high tone where K or L stands as dc. of a compound.

-mená-kawiidi (cf. kawiidi) in the last example is an instance of this.

Cf. also:

\[
V_{(c)}^{(K)} F^{(L)}
\]
vaavá-mayatikidi oyyilaá when it began to boil (water)

\[
i_{(A)}^{(L)} F^{(1)}
\]
but semwáana oyatikidi ósoonga it is now a child who has begun

Compare the similar occurrence of a high tone on the stabilizing pre-prefix in Ykazolele, noted under 6.2.1., p. 258.

1. L and K patterns are not distinct here.
6.2.4.4. Initial sequence and syntax

The dependent nomino-verbals, unlike the pure nominals, have no morphological variation associated with their occurrence in different non-initial slots. There are no plus and minus divisions of L and K units, although L verbals may also fill C, which is classed with the minus units.

On the broadest syntactic view, there seems to be no reason why the relationship between, say, A and following K should be marked sometimes by concatenation and sometimes by composition. It is only when the A/SC is sub-divided that it is possible to set up correlations between initial sequence and syntactic unit. An A item which belongs either to the iA or A? sub-divisions -- those consisting of stabilized and question items -- requires concatenation with following L or K. Other sub-divisions of A require composition. This seems to be the governing principle; there appears to be no possibility of sub-dividing K and L in such a way that the divisions correspond to the differences in initial sequence.

This is rather different from the situation with regard to sequences when A is a pure verbal, followed by a unit other than L or K. There it was found that the sequences A : plus unit and A : non-plus unit corresponded to the concatenating and composite behaviour sets. It would appear that iA over-rides this pattern.

The compounds, as always, are a law unto themselves. They form a special type of syntactic unit, in which the very strong bonds of internal relationship take precedence over all other requirements. While L and K are found outside compounds, they are far more frequently found as dc's of compounds. The term 'relative pronominal' for the sc. of such a compound is quite suitable, although pronominal sc's are also found in compounds where the dc. is not a DNV, as demonstrated in Chapter 4. (See also Appendix III, section 2.)
6.3. Verbals with more than one radical (verbal groups)

Multi-radical verbals abound in Zombo. Their morphology is sketched in Appendix IX. Briefly, all but the last radical in such a verbal group belongs to a set sometimes called 'auxiliaries', of which so far eighteen have been recorded. The number of radicals in any one verbal group does not exceed three, of which the first two are auxiliaries. Any radical after the first appears in an independent nomino-verbal of Class 15 (INV), but only the last may take affixes:

oluta ttōma llongōkaanga he usually learns best
(lit. he does rather to do well to learn + continuative affix)

-lut- 'do rather, do usually', -tom- 'do well' are the two auxiliaries; the second appears as an INV, ttōma. -longok- 'learn' also appears as an INV, and has the continuative affix attached.

There are several problems in the description of these verbals. The first auxiliary displays several of the phonological characteristics of the subordinate component of a compound. This is most clearly seen when there is a full verbal related to the auxiliary:

bamene ssāla they have done working
cf. bameēne they have finished

The auxiliary -mene displays no vowel length, in contrast to the full verbal -meene (-man- finish).

vō / kenda kkiyōla that she might go and visit
cf. vō / keenda that she might go

Again the auxiliary displays no vowel length, whereas the full verbal does. Not all auxiliaries show lack of vowel length, however:

wakwaama ssālaangā kāka he just kept on working
-kwaam- 'continue, keep on' has vowel length.

1. See Appendix IX.
Other similar characteristics displayed by auxiliaries are
reduction of geminates and consonant clusters. These are sufficiently
consistent to be reflected in the spelling:

lenda ffwä  he might die
cf. olleænd' öffwa  he will be able to die

Gemination of l, which is a tense sign in the full verbal -leend- 'be able',
is absent from the auxiliary -lend- 'may, might'.

Conversely, a second auxiliary in the form of an INV does show the
gemination representing the Class 15 prefix:

oluta ttöma llongókaanga  he usually learns best
ttöma  displays no reduction of tt-.

Consonant clusters are also reduced:

vaava-mbšne ssšla  when I have done working

cf. mmbeene  I have finished

mmb- in the full verbal contrasts with mb- in the auxiliary.

Unlike the sc. of a compound, however, auxiliaries may contain
realized high tone; moreover, they do not necessarily begin a phrase:

A?  K  ii
nkhı osínga vvāanga?  it is what that you are going to do?

(-sing- future auxiliary)

The patterns of phrase-initial verbal groups containing auxiliaries
are more reminiscent of composition than of compounding:

fwete-vvütukā  you must go back  cf.  ṣv-vutuka / v-vütukā

This is best described as the operation of Rule 2 initial modification,
since only the second potential high tone of vvütukā is realized.

Comparison may be made with forms such as wamona-nkkəentš, where
the Rule 2 realization affects the second component of the sequence,
the first having no high tones. In a compound, however, the dc.
is not subject to either initial realization rule; its high tones are
fully realized.

1. There is neither length nor any other distinguishing mark.
Compare also

osingga-vvůtuká you are going to return

which has been analyzed as a composite, with Rule 2 operating to
produce non-realization of a potential high tone in osingga- (cf.
nkhî osingga vváanga? in which osingga has high tone). One bar to
analyzing as a compound here is that vvůtuká has Variant 2 pattern,
not Variant 1, which is (ó)vvutůka. All dc's of compounds hitherto
described have Variant 1 pattern, and if vvůtuká were to be classified
as a dc., it would form an exception.

I am therefore led to describe auxiliaries as not compounded with
(1) the following member/s of the verbal group in which they occur, despite
their similarity to the sc's of compounds in the matter of phonology.
Verb groups do not display the major characteristics of the compounds,
namely, phrase-initial position in all occurrences, and non-realization
of high tone in the auxiliary only. The patterns of phrase-initial
verbal groups are better described in terms of composition.

It is further to be noted that the final INV in a verbal
group, the non-auxiliary, appears in Variant 2 form, likewise the
second auxiliary, if there are two.

1. Hence the avoidance of the term 'compound' for verbal groups in this
study.
6.4. Summary

Pure verbals and dependent nomino-verbals are treated separately; they cannot be regarded as 'contextual variants' of the same kind as the tono-morphological variants of nominals. There are some problems in establishing the basic tonal structure of pure verbals, since they occur only in phrase-initial position, but such constructs can be made.

DNVs present fewer problems in this respect, but display peculiarities, described in terms of conditioned variation of the basic structure, rather than as different realizations of the same structure. One feature of both categories is the occurrence of basic structures without potential high tone, in contrast to the nominals.

Phrase-initial verbals can be described as subject to initial modification under Rule 2. In this position they function only as A or iA. The initial modification can again be described as a function of the item in phrase-initial position, the position being determined by the syntax, but the case is not quite so clear, as there is no variation of the kind found for nominals.

Initial sequences including verbals can be described in terms of concatenation, composition and compounding. Compounding however is limited to sequences with DNV as non-initial component. The DNV may appear in a compound as dominant component; there are no examples of verbal subordinate components.

The distribution of the three kinds of initial sequence is clear, and as before, the type of sequence is regarded as an exponent of the relationships obtaining between the components of the sequence. In the case of iA and A? heading the sequence, the relationships with the following item of which composition and compounding are exponents appear to be excluded.
Auxiliary members of verbal groups display some of the features of subordinate components of compounds, but verbal groups do not exhibit the major distinguishing characteristics of compounds. When phrase-initial, their tone-patterns can be described in terms of composition.

This completes the examination of Zombo pitch patterns. Tables IV and V, which follow immediately, summarize the findings as regards the relationship between syntax and phrasing (Table V) on the one hand, and between syntax and initial sequence (Table V) on the other. Note that the compound is now regarded as a syntactic unit. Although it is convenient for some purposes to talk of compounding as a variety of initial sequence (as in Appendix I), it has already been shown that it is of a nature different from that of concatenation and composition, which operate within the same framework of phrasing.

The two tables are of somewhat different value and comprehensiveness.

Table IV covers the phrasing requirements of all syntactic units distinguished (including compounds).

Table V does not claim to summarize all the findings. For a complete syntax-sequence statement, it would be necessary to set up many more divisions of units and groups, e.g. three categories of X particles, capable of entering into relationships with the preceding item characterized by the three initial sequences, and similar categories for non-initial members of groups, as well as sub-divisions of phrase-initial items such as have been established to some extent for the nucleus (A pure verbal, A?, il etc.). The present study has not attempted this task, and only demonstrates the need for it to be done. Table V is consequently limited to successions of labelled units which display invariable sequence characteristics; these are in fact very few.
Table IV: Phrasing of syntactic units

With the isolation of compounding, it is possible to show a clear
distribution of phrase-initial and non-initial units of the same label.
It is no longer necessary to divide plus from minus sub-divisions; the
distinction is now between non-compound and compounded head. Where the
unit head requires phrase-initial position whether compounded or not,
as for instance in the case of A, the compound is not shown separately.
All units whose SC includes nominals may have compounded head.

<table>
<thead>
<tr>
<th>Unit label</th>
<th>Position</th>
<th>Phrasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>initial</td>
</tr>
<tr>
<td>B</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>C</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>C(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>E</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>F</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>G</td>
<td>varies</td>
<td>initial</td>
</tr>
<tr>
<td>H</td>
<td>pre-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>J</td>
<td>varies</td>
<td>initial</td>
</tr>
<tr>
<td>K</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>L</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>M</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>N</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>Na</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>P</td>
<td>varies</td>
<td>initial</td>
</tr>
<tr>
<td>Pa</td>
<td>precedes K</td>
<td>non-initial</td>
</tr>
</tbody>
</table>
Table IV: Phrasing of syntactic units /ctd

<table>
<thead>
<tr>
<th>Unit label</th>
<th>Position</th>
<th>Phrasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>Q(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>Q unlinked</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>R</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>R(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>S</td>
<td>pre-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td></td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>S(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>T</td>
<td>pre-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td></td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>T(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>V</td>
<td>pre-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td></td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>V(c)</td>
<td>post-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td>X</td>
<td>pre-nucleus</td>
<td>initial</td>
</tr>
<tr>
<td></td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>Xa</td>
<td>post-nucleus</td>
<td>non-initial</td>
</tr>
<tr>
<td>Y</td>
<td>after L</td>
<td>non-initial</td>
</tr>
<tr>
<td>Y(c)</td>
<td>after L</td>
<td>initial</td>
</tr>
<tr>
<td>Beta</td>
<td>before Alpha</td>
<td>initial</td>
</tr>
</tbody>
</table>

Phrasing characteristic refers to the head of the unit only.

Sub-units are phrased as the primary unit of the same label, unless otherwise shown, e.g. Pa is phrased differently from P, but K as primary and sub-unit is always non-initial, and Ka is phrased as K.
Table V: Initial sequences (labelled units)

Limited to labelled sequences characterized by either concatenation or composition.

1. Characterized by concatenation

<table>
<thead>
<tr>
<th>Phrase-initial unit</th>
<th>Second component</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (pure verbal)</td>
<td>{ B, any plus unit (F+, Q+, S+, V+) }</td>
</tr>
<tr>
<td></td>
<td>any unit</td>
</tr>
<tr>
<td>aA (nominal)</td>
<td>I, K</td>
</tr>
<tr>
<td>A? (nominal)</td>
<td>I, K</td>
</tr>
</tbody>
</table>

2. Characterized by composition

<table>
<thead>
<tr>
<th>Phrase-initial unit</th>
<th>Second component</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (pure verbal)</td>
<td>{ C, M, Na, T, X, any minus unit (F-, Q-, S-, V-) }</td>
</tr>
<tr>
<td></td>
<td>any unit (restricted range, includes K and X)</td>
</tr>
<tr>
<td>A (not iA or A?)</td>
<td>L, K, Ka</td>
</tr>
</tbody>
</table>

Note: this table refers to units consisting of single items only.
In addition, verbal groups functioning as A are composite.
Chapter 7

SUMMARY AND CONCLUSION

The framework here proposed for the description of Zombo pitch phenomena starts from two fundamental concepts, (a) the basic tonal structure of items, consisting of low tone and in some cases high tone potential also, and (b) the arrangement of items in phrases, according to their syntactic relationships. At the next level, where these two meet, are introduced the secondary concepts of 'full' and 'modified' realization of basic tonal structure. Modified realization includes the possibility of realization as low tone (also called 'non-realization') of potential high tone; potential low tone is always realized as low tone. Only vowels are carriers of tone.

For nominals, two further concepts are required: (i) that of tono-morphological variation, the maximum number of variants being two; this entails a two-term system of phrase-initial modified realization. The particular variant in any given case is required by the syntactic function the item fulfils: either heading of a labelled slot or membership of a group. (ii) Compounding, the non-realization of high tone in the first and sometimes the second also of the nominal components of a phrase-initial sequence.

For verbals and particles, description in terms of tonally conditioned variation is sometimes required; this is not however to be identified with tono-morphological variation. Verbals and particles participate in compounding, but never as 'subordinate' component, i.e., with non-realization of potential high tone. They are subject to initial modification, under one of the two rules set up for nominals.
The complexities of the system reside mainly in the initial modifications. Firstly, the extent of operation of one of the modifications (Rule 2) is not constant, and this gives rise to the concatenate/composite distinction. Operation over one item only of a phrase-initial sequence results in the patterning called here concatenation; operation over more than one item produces composition. The two terms are applied to sequences beginning with any kind of item: nominals, verbal or particle (whereas compounding applies only when the phrase-initial item is nominal). Secondly, the phenomenon of compounding cuts across, not only the correlation of nominal variant and syntactic slot established on broad syntactic analysis, but also across the primary correlation of phrasing and syntactic unit, set up on the same analysis. Although in some respects different in kind, concatenation, composition and compounding are grouped together under the term 'initial sequences'.

When the components of a sequence fill differently labelled slots, there is little complexity; the statements relating sequence and syntax can often --- though not always --- be made in terms similar to those used for phrasing. E.g., the Ka unit head, which in respect of phrasing is non-initial, is in respect of initial sequence always in composition with the preceding phrase-initial item. At the other end of the scale, the greatest complexity is found in nominal groups of which the non-initial components do not fill a labelled slot. In all cases where a straightforward correlation between labelled unit and sequence is not possible, simplification is brought about by a more refined syntactic analysis, establishing types of relationship beyond those of the labelled categories (or even the named groups). In this way, systematic statement is achieved concerning the relationship of sequence and syntax, which does not conflict with statements previously made. However, in the case of the relationship of dependency, whose exponent is compounding, it is
necessary to set up priorities of phrasing requirement: the phrase-initial requirement of dependency may conflict with that of the labelled slot filled by the compound, and in this case over-rides it. (A subsidiary label indicating 'compound' is therefore eventually taken into the labelling.) It is also necessary to make similar statements of priority for some cases of coincidence of primary and subsidiary slots of different labelling, where the subsidiary over-rides the primary phrasing requirement (e.g. 'nucleus' of a G unit functioning simultaneously as primary Q or C unit.

The part played by syntax in this system is sometimes direct — as in the determination of phrasing, occurrence of specific nominal variant, and extent of operation of Rule 2 modification; sometimes it is rather indirect — as in determining the particular phrase-initial modified realization. Compounding has a special position, in that both phrasing and realization are determined by syntax.

I submit that this framework provides an adequate and economical description. An attempt, for instance, to describe in terms of surface phenomena only, without recourse to the concepts of phrasing and phrase-initial modification, would lead to the establishment of categories whose distribution could not be systematically described — virtually no more than a listing of data.

As the title of this thesis indicates, I have given to the system as described in this way the name of syntactic tone phrasing. It is not a completely satisfactory term, since it does not indicate the fact of tono-morphological variation, which is an important part of the system in respect of nominals. It does however bring into relief what are in my view the outstanding characteristics, namely the 'grouping' aspect, and the dominant part played by syntax. The inclusion of the term 'tone' in the name requires further discussion.
By means of the framework adopted, it is certainly possible to
describe the pitch phenomena in terms of a tonal system. It is true
that over large areas of the language, tonal distinctions are
neutralized, but this need not be regarded as a bar to describing it
as tonal. There are other cases of tone-languages in which distinctions
are masked under certain conditions, while the homophous items can still
be described as having different basic tonal structure. Invariable
'surface' distinction is not a necessary pre-requisite for the creation
of different categories. A parallel can be drawn from English, in which
the homophony of such items as 'two' and 'too' does not invalidate the
establishment of distinct categories containing each.

Nonetheless, the question must be asked, whether the description
in tonal terms is the most satisfactory, or indeed the only one possible.
In other words, is it feasible, or even better, to describe Zombo as
intonational rather than tonal? On the level of phonetic pitch, there
is undoubtedly a very strong superficial resemblance to languages such
as English. The division of the sentence into phrases, and the number
of possible phrase-initial patterns for apparently similar phrases, combine
\(^A\) (1)
to produce this impression upon one's first hearing the language spoken.

1. Owing to the very great variations in pitch possible over a short
stretch of utterance, an ordinary Zombo conversation tends to sound like
a passionate English quarrel. If questions are included, the effect is
often of near-hysteria in the speaker, as the voice is frequently carried
up to breaking-pitch on the peak. See Appendix IV for pitch features
of questions.
The boundary between intonation and tone is ill-defined; some authors use the terms in different ways, and opinions differ as to the classification of particular languages in one category or the other. Moreover, there are complications arising from the relative prominence of stress distinctions, and the number of possible 'tunes', in languages generally classed as intonational. Both English and French are, in my view, intonational, but the two systems require description in very different ways. An English speaker has more choices open to him than does a French speaker.

In this aspect of choice that the main distinction between the intonational and the tonal language lies. Once the lexical and syntactic choices have been made, the speaker of an intonational language still has further choices to make, in the matter of the division of the speech into groups, and in the pitch-patterning which will convey his attitude. There are also, in some languages, choices concerned with relative emphasis. By contrast, the Zombo speaker has in my opinion no choice at all. The basic tonal structure, the phrasing and the realizations, are all pre-determined by the lexical and syntactic choices already made.

My conclusion is that it is not possible to describe Zombo in terms of an intonational system; the superficial resemblances are accidental, and description in tonal terms is the most satisfactory approach. The terms developed here appear to provide a means of description which adequately covers the facts in as economical a manner as possible. It is hoped that in addition some impression has been conveyed of the beauty of the system which, despite its surface complexities, is essentially a simple one.

1. Maw, for instance, speaks of tone-groups in Swahili, and Halliday applies similar terms to English. Both languages are described by others as intonational.
SYMBOLS AND ABBREVIATIONS

Syntactic unit notation

1) single-nucleus sentences

A nucleus
A? nucleus headed by (atable) question item
B (C,E...) primary unit, defined in relation to nucleus
B, _B, __B subsidiary unit (or 'sub-unit'), defined in relation to preceding unit or group member whose label is touched by the line, except for Pa K where Pa is defined in relation to following K
(G: ) encloses G unit
[G: ] G unit within (G: )
{G: } G unit within [G: ]
L (Q- ...) member of substitution class of unit indicated by label, functioning as nucleus
P* P (subject) unit supported by, but not in direct relationship with, the nucleus
Qn Q substitute, entailment partner for N
ii (iii...) member of verbal/nominal group filling slot indicated be preceding unit label

Subsidiary labels attached at right of main label:

a sub-division of main unit, e.g. Pa (not all sub-divisions are so marked)
(c) compound, e.g. P(c), ii(c)
s substitute filling slot, e.g. Qs
w passive verbal, e.g. lw
+ plus unit, e.g. Q+
- minus unit, e.g. Q-

The following is attached at the left of the main unit label:
i stabilized item heading the slot, e.g. iA, [IL]

ii) multi-nucleus sentences

\( \alpha \) (Alpha) nucleus \( \pm \) primary units defined in relation to it

\( \beta \) (Beta) unit other than Alpha

**Pitch-and tone-marking**

\( \acute{a} \)

i) in item preceded by * = potential high tone

ii) otherwise = realized high tone

\( \check{a} \)

high tone realized at peak pitch

\( \acute{\breve{a}} \)

'unrealized' potential high tone (potential high tone realized as low tone)

\( \breve{a} \)

potential/realized low tone

\(/

i) phrase boundary (not marked at beginning and end of
citations)

ii) divides citation of two to-no-morphological variants

:\)

uncited material

(over cited Zombo) peakless phrase (in Chapter 1 only)

\( \acute{a} \)

g vowel at base pitch (in Chapter 1 only)

**Initial sequences**

*concatenate* sequences: no special marking

*composite* sequences: hyphenation of components (most have subscript dot under first component)

*compound* sequences: hyphenation of components and (c) label over first component (none has subscript dot)

**Elision**

\( * \)

elision of -a

(e), (o)...

elision of -e, -o etc.
**Miscellaneous**

- **C**: consonant
- **cp**: concord prefix
- **dc.**: dominant component (of compound)
- **DN**: dependent nominal
- **DNV**: dependent nomino-verbal
- **EIP**: extra independent prefix
- **H**: high tone
- **IN**: independent nominal
- **INV**: independent nomino-verbal
- **IV**: Initial Vowel (of nominal)
- **L**: low tone
- **NA**: nasal consonant plus additional element
- **NC**: nasal + (non-nasal) consonant
- **Ø**: zero
- **P.N.**: personal name
- **p.p.**: possessive prefix
- **SC**: substitution class
- **sc.**: subordinate component (of compound)
- **TC**: tone-class
- **V**: vowel
- **V: long vowel**
- **Var.**: Variant

1. Also occurs as unit label (see Syntactic unit notation above)
   
   but context indicates proper interpretation of symbol.
BIBLIOGRAPHICAL REFERENCES


   (A copy of this article is appended.)


7a. Laman, K.E.: The Musical Accent, or Intonation in the Kongo Language, Svenska Missionsförbundets Förlag, Stockholm, 1922.

7b. -----------: Dictionnaire kikongo-français, Institut Royal Colonial Belge, Brussels, 1936.

   (A copy of this article is appended.)
For External Examiner

p. 284 (Bibliographical references):
Replace No. 13 by:


Appendix I

Marked and annotated sentences

The first three sentences are analyzed in some detail; for subsequent examples comment is more general.

Phrases are numbered and used as references in the notes.

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. osingga-longok' emphaangwa / yina-yivyangwaang' elukamba, /</td>
<td>he will learn the making / the which is made the climbing-sling, /</td>
</tr>
<tr>
<td>2</td>
<td>A ii Q+1 L Y</td>
</tr>
<tr>
<td>3</td>
<td>Q+2 ii(c) L S(c) (1)</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
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<tr>
<td>6</td>
<td></td>
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<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>ii(c) L Y</td>
</tr>
</tbody>
</table>

(He will learn how the climbing-sling is made, how to climb up the palm-tree, how to ease the sling down (the tree) and how to throw it up.)

(from description of the training of a palm-wine maker)

Phrase 1

osingga-longok(a) 'he will learn' : verbal group analyzed as a composite sequence, phrase-initial since it fills the A slot (nucleus). The sequence contains two potential high tones, and under Rule 2 the second is realized, this being the only modification proper to verbals.

1. kunš-ba could also be analyzed as Y, giving '(the climbing which) up the palm-tree is climbed', i.e., the way the tree is climbed, rather than 'the way to climb up the tree'.

1
-llongōka is a TCI independent nomino-verbal; Variants 1 and 2 do not differ tonally in this TC, where the stem shape is -CVCVCV, as here. The final vowel is elided, since the next item begins with a vowel. The elided vowel has low tone, hence there are no complications due to transference or shift: the tone of the elided vowel is omitted.

šmpaaangwa 'the making': independent nominal of Class 9, TCI, heading Q+, which requires non-initial position (unless unlinked) and Variant 1. (Cf. Variant 2 šmpaaangwa.) Peak pitch has already been taken by the first realized high tone of the preceding verbal.

Phrase 2

yina-yivvšangwaang(á)'the which is made': compound with pronominal subordinate component and L verbal as dominant component. The L verbal is of Tense 1, and the radical is from TCI. The pronominal is non-initial member of an appositional group, but as sc. of a compound it takes phrase-initial position. In this case, therefore, the phrasing requirement of the relationship between yina- and the L verbal over-rides the 'non-initial' requirement of the group membership of the pronominal.

The final vowel of the L verbal is elided; it is a high tone vowel and elision results in transference of this high tone to the Initial Vowel of the following item, which is the eliding vowel.

šlukáamba 'the climbing sling': IN filling the Y slot. Y requires Variant 1a and non-initial position (unless the head is compounded). Here the nominal has IV. The basic tonal structure is *šlukáamba (Variant 2 šlukaǎamba); occurring after peak pitch, as here, it has fully realized high tone. In addition, the IV carries high tone transferred from the elided vowel of the previous item.
Phrase 3

emmbatá 'the climbing': IN of TCIII (-CVCV stem), heading unlinked Q+.

Q+ requires Variant 1 (cf. Variant 2 embatá, not tonally distinguished from Variant 1 in this TC); an unlinked unit however requires phrase-initial position. Variant 1 in this position is subject to initial modification under Rule 1, hence the first (and here the only) high tone is unrealized. Note that emmbatá is just as much a Q+ unit as in Phrase 1: the initial modification is not directly determined by the syntax, only the phrase-initial position. The specific modification is determined by the variant.

Phrase 4

yina-yimmatwaŋa 'the which is climbed': compound of the same kind as in Phrase 2, with ronominal sc. and L verbal as dc., the pronominal forming part of an appositional group. -matw- 'be climbed' is a TCIII radical; the tense is Tense 1, as before, but there is only one potential high tone for verbs of this TC. Here there is no elision of final vowel.

Phrase 5

kunk-bal 'up the palm-tree': lit. 'at there the palm': nominal compound, an appositional group with pronominal sc. and IN as dc., filling S(c) (or Y(c), see fn. on p.285). The high tone on the final vowel of the sc. is a realization of the potential high tone of the dc., which is an IN of TCI: é-bal / bá (Class 5). The Variant is la, as is proper for the non-initial member of an appositional group; it here appears without IV.

Phrase 6

enkhulumuka 'the descent': IN of TCIII (-CVCVCV stem), functioning as unlinked Q+ unit. Q+ requires Variant 1, an unlinked unit requires phrase-initial position; hence realization under Rule 1 modification, as in emmbatá, Phrase 3.
Phrase 7

*yina-yikkulũmukwaanga* 'the which is brought down': compound with pronominal sc. and L verbal as dc., forming part of appositional group, but phrase-initial because of compounding. Cf. similar examples in Phrases 2 and 3.

Phrase 8

*yentsaŋkɔ* 'and the throwing up': E unit, extending Q+. E units are invariably phrase-initial at the head. The pre-prefix *ye-* 'and' is morphologically invariable; nominals with such pre-prefixes attached are described as having initial realization under Rule 2. The one potential high tone is therefore realized.

Phrase 9

*yina-yissakwäng(a)* 'the which is thrown up': compound as in Phrases 2, 4 and 7, with pronominal sc. and L verbal as dc. The elided vowel has low tone, which is therefore simply omitted.

*elukaũmба* 'the climbing sling': Y unit, requiring Variant 1 and non-initial position. Cf. Variant 2 *lukaũmба*.

Note the frequency of compounds in this sentence; five out of the nine phrases are headed by a compound, which in all cases over-rides the normal phrasing requirement of the unit/group member heading the sequence. The compounds in Phrases 2, 4, 7 and 9 form part of a unitary group, and none stands as first item in the group; 5 is an S (or Y) unit.

A major feature here is the presence of several unlinked Q+ units. All are Variant 1 nominals, but phrase-initial since they are unlinked; all display Rule 1 realization, with first potential high tone unrealized. In no case does the item have more than one potential high tone; realization under Rule 2 would therefore have produced realization of the only high tone in all cases. This further shows that initial realization is not directly dependent on syntax, since the nominals of Phrases 3 and 6 are
just as much Q+ as emphaangwa in Phrase 1. The fact of their being un inked determines their phrase-initial position; the fact that they head Q+ determines the variant.

This sentence may be compared with the next, which contains unlinked Q- units.

```
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>V(c)</td>
<td>A</td>
<td>Q(c)</td>
<td></td>
</tr>
</tbody>
</table>
```

2. Muna-másika, / bátwaaanga / myendo-myéńkhuni, / madyókoš, /

In the evening, / they used to send / bundles of firewood, / manioc, /

```
<table>
<thead>
<tr>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q-3</td>
<td>E1</td>
<td>E2</td>
</tr>
</tbody>
</table>
```

ngubá, / yeýáaka, / yeýáaka.

pea-nuts, / and other (things), / and others. (pea-nuts, etc., etc.)

**Phrase 1**

muna-másika 'in the evening' lit. 'in there the evening': nominal compound with pronominal sc. and IN as dc., filling the V slot. The phrasing requirement of the compound here coincides with that of the slot; all V units preceding the nucleus are phrase-initial. The second (dc.) component of the compound shows the Variant la pattern (cf. Variant 2 masika), proper both to its function as dc. of a compound and as non-initial member of an appositional group.

**Phrase 2**

bátwaaanga 'they used to send': verbal of Tense 2, with continuative suffix attached; radical of TCly, cf. the INV ót-twaása 'to send'. This is a pure verbal, standing as nucleus, with realization under Rule 2.

**Phrase 3**

myendo-myéńkhuni 'bundles of firewood': compound possessive complex, filling Q, a slot which otherwise does not require phrase-initial position unless unlinked. Cf. emyeéndo 'bundles', with vowel length.
Phrase 4
madyokó 'manioc, cassava' : unlinked Q- unit. Q- requires Variant 2, *madyokó, cf. Variant 1 emādyokó ; an unlinked unit requires phrase-initial position. The realization is therefore under Rule 2, and since the basic tonal structure contains two high tones, only the second is realized.

Phrase 5
ngubá 'peanuts' ; like the previous item, this is an unlinked Q- unit, but the basic structure contains only one potential high tone, *ngubá, which is hence realized under Rule 2.

Phrase 6
yeyáaka 'and others' (Class 8) : E unit head, hence phrase-initial.
(e)yá-aka / ya-aka is a TCI nominal (dependent) ; with pre-prefix attached, the basic tone pattern is fixed, and matches that of the Variant 1 pattern of the unpre-prefixed nominal, *ye-yáaka. However, items with such pre-prefixes are classified as Variant 2 ; the realization is thus under Rule 2, and the only potential high tone is realized.

Phrase 7
yeyáaka 'and others' : as Phrase 6.

The unlinked Q- units here, in Phrases 4 and 5, show realizations under Rule 2, in contrast to the Rule 1 realizations of unlinked Q+ in the previous sentence. Note that five out of the seven phrases consist of one item only. Contrast this with the next sentence, which contains two very long phrases.
The hope that was with him in this time that he was building the hut, / and that (= or) (it is a) shelter, / is of putting that -- / some day, / it is then / he may be / with the chance of seeing another ship, / the which will give him the chance of escaping (from) that island.

(The hope he had during the time he was building the hut, or shelter, was that some day he would have the chance of seeing another ship, which would give him the opportunity of escaping from the island.)

Phrase 1

Evvu'vu kyäkala 'The hope which was' : this may be described as a concatenate sequence. Evvu'vu 'the hope', IN (Class 7) heading a P unit, requiring Variant 1a and phrase-initial position, hence realization under Rule 1, with first (here sole) potential high tone unrealized. The basic structure is *(e)vu'vu (TCIII), and the IV is present. kyäkala 'which was' : L verbal of Tense 2. L is a non-initial unit. The first realized high tone (again the sole one in the item) is also the first of the phrase, hence it takes peak pitch.

yaändi 'with him': Na unit, non-initial. This is an item of pronominal Series 10, which has no variants.
munthaangwa 'in the time': S- unit, non-initial. S- draws from Set (ii) in the case of INs, i.e., the pre-prefix (o)mu- of Class 18 is a morphological variable; the item is thus reckoned to have Variants 1 and 2, but the basic pattern is fixed at (o)mú-nthaangwa, cf. énthaangwa / ntháangwa 'time'.

yóóyo 'that/this previously mentioned': pronominal of Series 6, non-initial member of chain group. Such an item appears as Variant 1a, with non-initial position; here the IV is absent.

kátuunganga 'that he was building': K verbal, non-initial position. The radical is from TCI (cf. ót_tuunga / t_tuunga 'to build') and is here in Tense 2, with continuative suffix. The elided vowel has low tone, which is omitted.

onssaampa 'the hut': IN of Class 3, TCIII, filling Q+, which requires Variant 1 and non-initial position; cf. Var. 2 nssaampa. The Q+ unit here is a sub-unit in K, itself a sub-unit in S-, in turn a sub-unit in L, which is a sub-unit in P. In no case however is the phrasing or variant requirement affected by this; the sub-units share the characteristics of the primary units of the same label.

Phrase 2

yovò 'or', lit. 'and that': E unit containing head of G unit. E requires phrase-initial position and Variant 2; the sole potential high tone is thus realized, at peak pitch, since it is the first (and only) one in the phrase.

Phrase 3

ssabá 'it is a) shelter': nucleus of the G unit headed by the previous item. The nucleus requires Variant 2 and phrase-initial position when filled by a nominal, hence there is realization under Rule 2: *ssabá → ssabá, cf. Var. 1 *essabá (Class 7, TCIII).
Phrase 4

ikyassyà '(it) is of putting', i.e. '(it) is' : stabilized INV of Class 15, TCI, with possessive prefix, functioning as nucleus of the main sentence. Cf. ëssya / ssyà The basic pattern of the unstabilized item is fixed at *(s)kyá-ssya, owing to the presence of the p.p.

As in the previous phrase, the nucleus when filled by a nominal requires Variant 2: nominals with morphologically invariable pre-prefixes such as i- are indeed reckoned to have no Variant 1. Realization is under Rule 2, with only potential high tone realized.

vó 'that' : G head functioning as Q in relation to the preceding (nucleus) item. The sequence here is concatenate.

Phrase 5

konsù-llumbu 'some day' : V(c) unit preceding the G nucleus to which it is related. The components are compounded, the dc. showing Variant 1 pattern, cf. ëllumbu / llùmbu. The high tone of 'llumbu is realized on the final vowel of the sc. konso-, which has no realized high tone of its own. The phrasing requirements of pre-nucleus V and of the compound here coincide.

Phrase 6

së 'it is then' : G unit head functioning as nucleus within primary Q(G).

Realization is under Rule 2, the only high tone being realized.

/së/ is one of the class of G heads which always occupies a phrase to itself.

Phrase 7

kakala 'he may be' : A(pure) verbal of Tense 8, functioning as nucleus of a G unit, therefore phrase-initial. There are no potential high tones.
Phrase 8

*yelau-dyammona* 'with the chance of seeing' : composite possessive complex heading N unit, which requires phrase-initial position and Variant 2 for the head item, therefore Rule 2 realization. The rule operates over the sequence as over one item, and only the second high tone -- that of the second component -- is realized.

*ndzaaza* 'ship' : IN (Class 9, TCIII), heading possessive complex in the Q- slot. Variant 2, non-initial position.

*yakkaka* 'of otherness', i.e., 'another' : non-initial member of possessive group, requiring Variant 2 and non-initial phrase position. Here the elements of the group do not have the relationship expressed by compounding.

Phrase 9

*yina-yisîngâ kûmvaân(a)* 'the which will give him' : compound with pronominal sc., the dc. being the auxiliary of the L verbal, followed by INV (Variant 2) as final item of the verbal group. Compounding here results in a borken group, since the sc. of the compound is part of a Q- unitary group. The INV includes an object substitute (Bs).

*elaü* 'the chance' : Q+ head, therefore Variant 1 and non-initial position. The IV of this nominal causes elision of the final vowel of preceding kûmvaân(a), but as both vowels have low tone, there is neither shift nor transference.

*dyàttiinin(à)* 'of escaping' : second member of possessive complex filling Q+ (sub-unit within L) ; the final elided vowel has high tone, realized on the IV of the following item *essaânga*, hence éssaânga.

*éssaânga* 'the island' : IN (Class 7, TCIII) heading Q+: Variant 1, non-initial position. The high tone transference has been explained in the previous note.
'that particular, that very': pronominal of Series 8, second member of chain group, requiring Variant la and non-initial position.

Here the IV is absent.

This sentence demonstrates that, despite the frequency of compounding, long phrases are found in which the syntactic relationships of the items do not require compound exponentence.

Note that the G unit beginning in Phrase 4 continues to the end of the sentence, and itself contains a G sub-unit. Nesting of embedded sentences is very common; here the G sub-unit and the G primary unit (filling Q) end simultaneously. Cf. also No. 4 below.

The remaining examples are described in a rather different fashion. The intention is to give a general oversight of the whole sentence, rather than of particular items, unless these are of especial interest. The initial realizations, and then the initial sequences, are shown together; this is followed by general comment.
Initial realizations: : Rule 1 -- 2

Rule 2 -- 1, 3, 4, 5, 6, 7, 8, 9

Initial sequences : concatenate -- 1, 5, 8

composite -- 4,

This illustrates the complex embedding for which Zombo speakers show a great fondness. The primary G unit consists of a G unit which begins in Phrase 1 and continues to the end of the sentence. A G sub-unit in E begins at Phrase 3 and ends in Phrase 4; a second G sub-unit begins in Phrase 5, where it fills the C slot within G; this in turn contains a further G sub-unit, beginning at 7 (also filling E, in relation to iA within G) and ending at the final item of Phrase 8. The primary and secondary G units end simultaneously at the end of the sentence. Round brackets are used for the primary G unit, square brackets for the secondary units, and braces for the tertiary G unit.

C is very often filled, as here, by vo heading a G unit, in the formal ḳimphovi (oratorical) style. Note that unlike other C units, it is concatenate, whereas unless filled by a G head, the C head is composite except when in compound.

E units headed by yovó 'and that, or', account for a great deal of complex embedding.
They were / with food which was enough / at the kibanga / the which(*food)
came from

They had at the kibanga sufficient food, which came from other people's
houses and was brought to the company of the kibanga. )

Initial realisations : Rule 2 -- 1, 2, 6

Initial sequences: composite -- 2, 6?

compound -- 3, 4, 5, 7

All compounds in this sentence are headed by a pronominal, like those
in No.1, but here not all have an L verbal as second component; Phrases
3, 5, and 7 are appositional groups with locative pronominal as first
component. Note that Phrase 4 is a continuation of N, and is separated
from the head of the unit by Phrase 3, which consists of an S unit (compound).
The customary line has not been drawn, to avoid confusion.

Phrase 6 illustrates a common form of S units extending verbals.
When the structure has passive meaning, frequently the verbal is active,
without passive -w- extension, but is followed by Qs in agreement with
the subject. Here 'and to bring it' = 'and to be brought'. This
construction is not invariable, as may be seen from the following
sentence, No.6 (Phrase 3).

Regarding yöttwaasa-mő in Phrase 6 : as mentioned under 6.1.1. (p.248 ),
the Qs item is probably best analyzed as part of the item, rather than a
separate item in composition. Here also there is no third high tone
associated with the presence of -mo after *yöttwaasa.

1. For notes on the kibanga, see fn. 1 under 4.2.4.1., p. 217.
This matter therefore was examined again and re-examined / by the clan members / and maternal relatives / of the woman (lit. child of woman).

**Initial realizations**: Rule 1 — 1

Rule 2 — 2, 3, 4, 5

**Initial sequences**: concatenate — 1

composite — 2, 4

compound — 6

As in all cases of sequences of which the first component is under Rule 1 realization, Phrase 1 can be analyzed as either concatenate or composite; concatenation is chosen as the simpler description.

Phrase 3 is an E unit extending a verbal, with passive meaning. Unlike the E : Qs example in No. 5, there is a passive extension on the radical -fimpulul- 're-examine' here.

J is a composite, whose components are the bound item esi- and kaandá; the pattern kaandá is not found outside this construction.

Note the pattern of the X item in Phrase 2, which matches that of the Variant 2 form of the nominal (e)dyá-aka / dya-áka 'something else' (Class 5).

Phrase 6 consists of a compound, which thereby 'breaks' the nominal groups filling E. The non-compounded equivalent of the first component -mwä- is (o)mwa-ana / mwa-ána 'child'. The compound means simply 'woman', not the literal rendering 'child of (a) woman'.
| 1. **ev-vumi** (Class 14) is the recognition of the different degrees of respect due to fellow human beings, and to humans in general as distinct from members of other species. This is not the same as **olu-zitú** (Class 11), which is the respect due to elders. |

(Sp when we say 'the child's progress', this means that we want to consider what the child's state of progress is in respect of 'vumi', mental development, discretion, understanding, knowledge and wisdom.)

**Initial realizations:** Rule 1 — 6

Rule 2 — 1, 3, 5, 7, 9-13

**Initial sequences:** concatenate — 4, 5?, 6, 7

composite — 3, 5?, 13

compound — 2, 8

In contrast to other sentences illustrated so far, this has a higher proportion of concatenate than of any other kind of sequence, given that **Phrase5** is analyzed as such. The simplest tonal description is of course the concatenate, but maintenance of the syntax-sequence correlations requires composite analysis: **tuzolele-yyiIndula.**

| 2. **Ozeëvo**, / vaavá-tuvołe vó / ndungunuka-zanssëdyå, / |
| Therefore, / when (that) we have said that / it is the child's progress, / |

| 4. **Issya vó / tuzolele yyiIndula kana vó / ekkiļu kyamwāan' endyōyo — / it is to put that / we wish to consider whether that / the state of this child |
| 7. it is how that it is (for) / in the progress of 'vumi' , / thoughts, / |
| 10. nthonk, / yeummbaŋuži ; / zzayI, / yengaŋu-žandi. / |

**discrimination, / understanding, / knowledge, / and his wisdom.**

In contrast to other sentences illustrated so far, this has a higher proportion of concatenate than of any other kind of sequence, given that **Phrase5** is analyzed as such. The simplest tonal description is of course the concatenate, but maintenance of the syntax-sequence correlations requires composite analysis: **tuzolele-yyIIndula.**

| 1. **ev-vumi** (Class 14) is the recognition of the different degrees of respect due to fellow human beings, and to humans in general as distinct from members of other species. This is not the same as **olu-zitú** (Class 11), which is the respect due to elders. |
Phrase 4 shows the concatenation associated with *vo 'that' as a Q unit, especially in relation to a stabilized item as nucleus. Phrase 7 shows the customary concatenation of a question nucleus and following K verbal. Phrase 6 is a further case where concatenation is the simpler description, since the initiating item is under Rule 1 realization.

The most outstanding feature of this sentence is the number of unlinked items which are not filling labelled unit slots. Phrases 9 and 10 are a continuation of the group in Phrase 8, and could also have been nominals with the possessive prefix *za- attached; Phrase 12 is a continuation of the B unit of Phrase 11, and could also have been itself an E unit. Note that in all these cases, Variant 2 is that employed. Variant 1 does not occur in these conditions, but must always head a labelled slot such as B, Q+ or one of the other 'plus' units. All the Variant 2 forms here are under Rule 2 initial realization, and since all have but one potential high tone, it is invariably realized.

Unlinked members of groups were not dealt with in the main body of the work, and a glance at 3.3.2.2. (Unitary nominal groups) will show that they are not covered by the description there. They form a special class requiring Variant 2 and phrase-initial position.

The G head in Phrase 5 consists of two particles, *kana and *vo; *kana is always present when the embedded sentence contains a question item, and may occur in this context without *vo, if the nucleus within G immediately follows. If however any other unit within G follows the head, *vo is always present.

In addition to its linguistic interest, this sentence illustrates the highly developed psychological vocabulary of the Zombo, for most of which there is no adequate glossing in English.
Ntsimba and Ndzuzi are the names traditionally given to twins, who were thought of as being 'sprite children' and able to complain to their sprite if badly treated, or even if badly thought of; they could also, however, ask for blessings for those who pleased them.

The sentence here consists of a Beta followed by an Alpha unit; the Alpha unit has been marked for analysis at the lower level.

Initial realizations: Rule 1 -- 3

Rule 2 -- 1, 4, 5, 6, 9, 10

Initial sequences: concatenate -- 5

composite -- 6, 10

compound -- 2, 7, 8

Note the subscript dot in Ntsimba. Variant 1a with IV absent.

The three compounds here fill differently labelled slots. The phrasing requirement of pre-nucleus T (Phrase 2) and of P (Phrase 7) here coincides with that of the compound; conversely, the S compound over-rules the normal S phrasing requirement, which is non-initial (Phrase 8). The T head is a triple compound.

Note composition over three items in Phrase 10; the first component zifwete has no high tone potential.
This root / was cut up, / and then / its bark (skin) / 

<table>
<thead>
<tr>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>iA2</td>
<td>N(c)</td>
<td>K</td>
<td>C(G: iA )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>β</td>
<td>A3</td>
</tr>
</tbody>
</table>

is what was pounded / until it became / (it is / like / it is now powder, / 

and then / it was spread out (in the sun to dry).

**Initial realizations**: Rule 1 -- 1, 4

Rule 2 -- 2, 3, 5, 7, 8, 9, 10

**Initial sequences**: concatenate -- 1, 4

compound -- 6

This sentence contains three nucleus groups, or Alpha units, joined by two Beta units. The Alpha units have however been shown with notation for analysis on the single-nucleus sentence pattern.

The compound in Phrase 6 has a K verbal as second component, of the kind which shows no high tone in the context of full realization, but has one when pre-prefixed, or standing as dominant component of a compound.

The position of nɛ is of some interest. It is a G head, functioning as C in relation to the preceding K verbal; it invariably begins a phrase. There seems to be no reason for this, since other G heads such as vo standing as C are not phrase-initial. A possible analysis is to regard nɛ as A within G, and itself introducing a G sub-unit, i.e. C(G:A[ɛ: , on the pattern of sɛ, which is simultaneously A and G head. I find this rather unsatisfactory, however. nɛ as pure G head (as in No. 16, p. 309 below) i.e. not filling another slot simultaneously, is classed with other pure G heads, which are always phrase-initial. In the present context it remains a problem.
If / a person / were to be / with a head-ache, / and a cold, / and feelings of faintness, / and others, / and others, / he was prepared for the medicinal bath / to the end (that) / he may bathe.

(If anyone had a head-ache, or a cold, or felt faint, etc., he had the medicinal bath prepared for him so that he could bathe in it.)

*Initial realizations*: Rule 1 -- 2

Rule 2 -- 2, 4-10

*Initial sequences*: concatenate -- 9

composite -- 4, 10

This sentence contains a high proportion of single-item phrases, two of which, Phrases 3 and 11, have no potential high tones.

Phrase 9 shows the concatenation normal for A : plus unit sequence.

Phrase 10 consists of the item *kinu*, which appears only in this context, followed by *mañana* 'those (matters)' and with *ye-* attached, as *yakunu* 'so far, yet, up to now'. Its item category is uncertain, but since it may be followed by a pronominal, it seems better not to classify it as a particle; no other particles may be followed by a nominal within the same phrase, or filling a sub-slot within the slot they head. It is therefore tentatively assigned as a nominal -- tentatively, because again, no other nominal can stand as a G head. What *dan* be stated with more certainty is that the phrase is a composite sequence, since *mañana* is a Series 3 pronominal,
and Series 3 is only found in Variant 2 contexts. Such an item would be atypical as dominant compound of a compound (where the standard is Variant 1). A potential high tone in *kīnu is attested from its other context, yakīnu. It seems the best analysis is composition under Rule 2, rather than concatenation under Rule 1, since there is no evidence that G heads ever are subject to Rule 1.

Note the string of E units; the last two, containing -aka 'other' repeated, are typical of such strings, as also of a string of unlinked items (cf. also No. 2, where E units of this kind terminate a succession of unlinked Q- units).

1. Note that the terms 'string' and 'succession' are used here as alternatives with the same meaning; 'string' does not have the meaning assigned to it in transformational grammars.
11. \[ A_1 Q_s \quad A_2 Q(G; \text{A} \quad \text{R+}) \]
\[
\text{Watala-yô} -/ \text{wamona vo} / \text{yatólok' ekdulu}.
\]
He looked at it -- / he saw that / it was broken the leg (had broken its leg).

**Initial realizations** : all Rule 2

**Initial sequences** : concatenate -- 2, 3

composite -- 1

This is a two-nucleus sentence, without Beta unit joining the two nucleus groups. There is a pause between the two Alpha units.

Phrases 1 and 2 are interesting as showing verbals comparable in respect of tone-class, tense and syntactic status (A in both cases), but which appear in different initial sequences. Watala- in Phrase 1 is in (1) composition with following Qs , whereas wámona in Phrase 2 is in concatenate sequence with following Q(G). The verbal in Phrase 3 is also comparable in all respects with the other two, although it has a longer radical; like the verbal of Phrase 2, yatólok(a) is in concatenation with following R+.

---

1. Also analyzable as a single item, see p. 248 and notes to No. 5, Phrase 6.
Because of this, anyone who wanted to know this work,

<table>
<thead>
<tr>
<th>Initial realizations</th>
<th>: Rule 2 -- 3 4, 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Phrase 5 has no potential high tone)</td>
<td></td>
</tr>
<tr>
<td>Initial sequences</td>
<td>: concatenate -- 6</td>
</tr>
<tr>
<td></td>
<td>composite -- 4</td>
</tr>
<tr>
<td></td>
<td>compound -- 12</td>
</tr>
</tbody>
</table>

Phrase 6 is interesting, as showing an L verbal as second item in a phrase, yet neither in composition nor compounded with the preceding item. The structure might be rendered in English as 'with a person/one who knew' rather than 'with him who knew'.

Also illustrated here is F+, in Phrase 2, its first occurrence in these examples. It is too far from the head of the phrase to be involved in initial sequence. Compare Phrase 2 in No. 13.
(Children played in groups of their own age, even when the different age-groups were playing the same games.)

**Initial realizations:** Rule 1 ↔ 1, 4  
Rule 2 ↔ 2, 3, 5

**Initial sequences:** 
concatenate ↔ 2  
composite ↔ 3

Phrase 2 contains F+ in concatenation with A, which is its customary sequence behaviour.

Phrase 5 is tentatively analyzed as composite, although as the first component contains no high tones, composition cannot be shown.

Particle sequences however display no other behaviour.

The most interesting phrase is 5. Here the dominant component of the compound is the M unit kwándi, which here displays a tone-pattern differing from that of its occurrences out of compound, kwándi. It will be remembered that the pronominals of Series 1, which have two variants, display similar patterns: cf. (o)yándi Var. 1(a) and yaándi Var. 2. The pattern of kwándi here matches that of the Series 1 Variant 1 form. It is possible therefore to postulate two variants for the Series 12 items: that occurring out of compound (e.g. kwaándi) equivalent to Variant 2, and that occurring as dc. of a compound equivalent to Variant 1 (e.g. kwándi).
14. Another also / might be called that / he is Locusts.

(Another again might be given the name Locusts.)

Initial realizations: Rule 1 -- 1

Rule 2 -- 2, 3

Initial sequences: concatenate -- 1

composite -- 2

Phrase 1 could also be analyzed as composite, thereby maintaining the sequence-syntax correlations, although concatenation is the simpler tonal description. Note composition in Phrase 2, resulting in realization of second high tone of second component, since the first component has no high tone potential.

15. The reason / is because -- / he was born / in a day which was that -- /

The reason / is because -- / he was born / in a day which was that -- /

Phrase 1 could also be analyzed as composite, thereby maintaining the sequence-syntax correlations, although concatenation is the simpler tonal description. Note composition in Phrase 2, resulting in realization of second high tone of second component, since the first component has no high tone potential.
For a note on kādi see Appendix X. The item is here analyzed as filling the A slot, i.e., functioning as nucleus, but when it appears as a pure head it has no high tone: kādi.

Phrases 6 and 7 are headed by triple compounds. Note the occurrence of the auxiliary INV ttōma 'do well' as (second) sc. of the compound in Phrase 6, cf. ttōma Variant 2. It is unusual to find an INV as sc. of a compound; this appears to be limited to auxiliaries, which as pointed out in Chapter 6 (pp 267-69) display some of the characteristics of subordinate components even when not tonally analyzable as such.

The pause in Phrase 6 has prevented elision of the final vowel of kīnā 'that it is', which otherwise would have shown high tone shift: kūnə emphatu.

The A compound heading Phrase 6 is a group which is a member of the T/SC.

(As we may see from observation of the way in which children of all races in the world learn...)
Initial realizations: Rule 2 -- 1, 6
Initial sequences: composite -- 6
compound -- 2, 3, 4, 5

This sentence illustrates the occurrence of compounds heading four different units: IA, S, P and E. In all but the case of S, the compound phrasing requirements coincide with those of other members of the slot SC.

The G head ne belongs to the class of those which invariably occupy a whole phrase; it has the further characteristic of being always followed by a stabilized nucleus, with no other unit intervening.

Phrase 6 shows the regular composition of C with preceding phrase-initial verbal.

17.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>$g$</td>
<td>$P^*$</td>
<td>$ii$ $iii$ A? K $iic$</td>
</tr>
<tr>
<td>Kaõnsi, / emphutwił imbhamphila yooyo -- / awëyi zilënda kkadi la zasikila?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>But, / answers of this sort -- / it is how that they can be (for) correct?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(But, how can answers of this sort be correct?)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initial realizations: Rule 1 -- 2
Rule 2 -- 1, 3
Initial sequences: concatenate -- 2, 3

Phrase 2 is analyzed as beginning with concatenate sequence, since under Rule 1 no other analysis is necessary, and concatenation is the simplest. Phrase 3 is analyzed as concatenate, and is demonstrably so, since the realization is under Rule 2, and composition would have resulted in non-realization of the high tone of *awëyi? 'it is how?'

Concatenation characterizes the A? : K sequence in all instances.
One point which arises from consideration of these sentences is that the simplest description from the purely tonal point of view is not always the most satisfactory from that of the syntactic tone phrasing system as a whole. Where, for instance, the basic tonal structure of the sequence contains only one high tone, and that not in the first component, it will be clear that realization under Rule 2 will result in realization of the high tone. Such a sequence is more simply described as concatenate, but if the items are of classes which are always found in composition where this can be demonstrated, it is better to classify the sequence as composite, in order to maintain the syntax-sequence correlations. It might even be advisable to introduce the composite sequence as a term for some realizations under Rule 1, where the items are always found in composition when they appear under Rule 2. There is a similar difficulty, in some instances of phrase-initial sequences which could be analyzed as either composite or compound. It cannot be said that all the problems in this respect have been solved. All that is asserted here is that the battery of techniques evolved will serve to describe all the phenomena, even though some particular cases might be described in more than one way. The present work is only a beginning.
Appendix II

Articulation rate; orthography

1. Articulation rate

Subordinate components of compounds are spoken at a higher rate of articulation than are other items. This is an aspect difficult to quantify, and still more difficult to represent on paper, therefore no attempt has been made to indicate it. The rate is often such that vowels are totally omitted:

\[ \text{nkkumbu-myayìngi} \] 'many times, often' is realized as

\[ \text{nkkum'-myayìngi} \]

This feature gives a curious wave-like effect to much of Zombo speech, a rapid alternation between the very high rate for the sc's of the compounds, and the slower rate, from the dominant component onwards in the phrase initiated by the compound, and in non-compounded items. A sentence containing several compounds, such as No. 6 in Appendix I, gives the impression of a series of crescendoes, both of pitch and of articulation rate, adding to the general effect of nervous excitement in the speaker upon English ears. This is particularly the case when there are triple compounds, giving high articulation rates over long stretches.

It appears that speakers are conscious of the 'hurried' effect of compounding, and a speaking style in which concatenate and composite sequences predominate over compounds is deliberately cultivated for formal and weighty occasions. I have also been told that a style of expression in which the speech is broken up into as many phrases as possible is considered good formal kìmphovi 'mastery of language, pratory', e.g.
A speech in such a style contains many G units headed by vo 'that'.

The art of speaking in public has been developed to a high degree among the Zombo, and children were taken from a very early age to gatherings (tt' mâambu lit. to put affairs) where they could hear and later imitate orators of repute.

2. Orthography

In view of the factor of articulation rate, in addition to the peculiar phonology of compounds already described under 4.2.3.3., it is difficult to envisage an orthography which will be at once adequately representative and practical. The situation is not unlike that in English, where 'weak' and 'strong' forms of words have on the whole identical spelling, leading to distortion of the facts, and confusion among mother-tongue and foreign speakers alike.

It is not surprising that the orthography currently in use makes no distinction of vowel length; as has been demonstrated, such distinctions are not always in operation. -sal- 'work' is not differentiated from -saal- 'remain', both being spelt -sal-. Nor is there differentiation of geminate and non-geminate consonants; the spelling vangu represents both vàangu (Class 5) 'action' and vváangu (Class 7) 'creature'. (Both items given in Variant 2 form.) Many pairs of contrasting consonant clusters are also represented by identical spelling: nkumbu serves for
nkhumu (Class 9) 'name' as well as for nkhumu (Class 3) 'time, occasion'. Some writers however make a distinction by writing the latter as n'kumbu or fikumbu.

The question of an adequate and practical orthography for Zombo is probably insoluble, akin to that of constructing wearing apparel for a centaur -- should he wear a suit or a saddle? A spelling suitable for non-compounds and dominant components will not serve for subordinate components, but the problems of introducing special variations for the latter would be, I think, too great.
Appendix III

Common compounds

Compounds have always a nominal first component (subordinate) and may consist entirely of nominals. Below are shown the most common patterns of compounding, with examples.

A. Bi-component compounds

A bi-component compound consists of one subordinate and one dominant component.

1. Compounds with independent nominal (IN) subordinate component:
   a) IN + possessive (prefix attached to IN or pronominal stem)

<table>
<thead>
<tr>
<th>Compound</th>
<th>Literally</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>ngudi-ünkhaži</td>
<td>maternal uncle</td>
<td>mother of relations</td>
</tr>
<tr>
<td>se-dyünkkeënto</td>
<td>paternal aunt</td>
<td>father of woman</td>
</tr>
<tr>
<td>mwan'-ünkkeënto</td>
<td>girl, daughter</td>
<td>child of woman</td>
</tr>
<tr>
<td>mbuta-zakkeënto</td>
<td>old ladies</td>
<td>elders of women</td>
</tr>
<tr>
<td>mwan'-ayakala</td>
<td>boy, son</td>
<td>child of male</td>
</tr>
<tr>
<td>mpfumu-avata</td>
<td>village chief</td>
<td>chief of village</td>
</tr>
<tr>
<td>mpfumu-akaənda</td>
<td>clan chief</td>
<td>chief of clan</td>
</tr>
<tr>
<td>ndzambi-âmphuungu</td>
<td>supreme God</td>
<td>God of highest</td>
</tr>
<tr>
<td>ndzambi-anaâna</td>
<td>frivolity</td>
<td>god of eight</td>
</tr>
<tr>
<td>nkkumbu-myayyîngi</td>
<td>often</td>
<td>times of manyness</td>
</tr>
<tr>
<td>nthangwa-zawoonsono</td>
<td>always</td>
<td>times of allness</td>
</tr>
<tr>
<td>asadisi-əmbbote</td>
<td>super-helpers</td>
<td>helpers of goodness</td>
</tr>
<tr>
<td>ndzo-ənthete</td>
<td>first house</td>
<td>house of first</td>
</tr>
<tr>
<td>lumingu-lwanviŷmba</td>
<td>entire week</td>
<td>week of wholeness</td>
</tr>
<tr>
<td>ntsusu-amsəlakâzi</td>
<td>nursing mother's</td>
<td>chicken of nursing</td>
</tr>
<tr>
<td></td>
<td>chicken</td>
<td>mother</td>
</tr>
</tbody>
</table>

Literally: mother of relations, father of woman, child of woman, elders of women, child of male, chief of village, chief of clan, God of highest, god of eight, times of manyness, times of allness, helpers of goodness, house of first, week of wholeness.
malengē-maandi | his pumpkins | compare | (o)malengē
ngudē-zaandi | their mothers | éngudi/nguídi
yakalē-yaame | my husband | (e)yakala
mwanē-aandi | his child | omwáana/mwaána
madyē-maandi | his food | omádyá/madyá
akulē-eeto | our ancestors | oákulu/akulu

Note that nkhi? it is what? is always compounded with following possessive:

nkhi-ānthaangwa? | what time is it? | it is what time?  (Inkhi?/nkhi?)
nkhi-āmmfunu? | what use is it? | it is what use?
nkhi-āsslaju? | what work is it? | it is what work?
nkhi-ampilē? | what sort is it? | it is what of sort?

but not with following IN without possessive prefix:

nkhi nndwaåka kallwaåkaanga? it is what arrival that he arrives?
(what is the nature of his arrival?)

b) IN + IN in appositional group:

<table>
<thead>
<tr>
<th>literally</th>
<th>compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>ngo-mwáana</td>
<td>afterbirth</td>
</tr>
<tr>
<td>zulē-nkhulu</td>
<td>first-born</td>
</tr>
<tr>
<td>nkhamā-rwa</td>
<td>nine hundred</td>
</tr>
<tr>
<td>ngonde-naāna</td>
<td>eight months</td>
</tr>
<tr>
<td>funda-dimosï</td>
<td>one thousand</td>
</tr>
<tr>
<td>llumbu-kimosï</td>
<td>one day</td>
</tr>
<tr>
<td>makum'-māya</td>
<td>forty</td>
</tr>
<tr>
<td>makum'-moolē</td>
<td>twenty</td>
</tr>
</tbody>
</table>
Compounding with numeral d.c. is particularly common. Note that the second element is not regarded as dependent, even though it may display a class prefix of the same class as the other component. *llumbu-kimosi* \(^{(1)}\) may be literally rendered as 'a day, a single one in the Class 7 set'.

Reduplications may be subsumed under this heading; some have a linking element -ke- or -mu:

*llumbu-kêllumbu* day by day
*(-a)mphi*la-mumphi*la* (of) various kinds (lit. kinds in kinds)
*ndzila-ndzîla* stripes (lit. paths-paths)
*yiyole-yiyolê* in pairs (lit. a twosome a twosome) cf. *eyiyoolê*

\(^{(2)}\)

**c) nominal + X particle:**

*kyankobo-kîkilu* extremely tough (lit. of toughness indeed)
*dyammbote-bešni* very good (lit. of goodness very)
*ammbuta-kâka* elders only
*akkakâ-mphe* others too

d) the invariable item *konso-* which is bound, and never occurs without a following nominal or pronominal: the meaning is 'each, every, any, some'.

*konso-ôwo* something like that (lit. some thus)
*konso-ngudi* every mother
*konso-nthaangwa* any time

1. True dependent nominals are very few in Zombo; most have a comparative or superlative connotation, and function only as a nucleus:

\[ \text{P A K} \]

*êllumbu / kibi-wižidi* the day / is too bad that you have come
(you couldn't have picked a worse day to come -- -bi 'too bad')

2. Some of these examples, which on tonal grounds alone could be analyzed as composites, have been included as compounds because (i) they are phrase-initial although the slot does not require it and (ii) they display lack of stress associated with potential unrealized high tone, as described in Appendix II.
e) IN + L verbal:

- nkkumbu-myakoondwa (nthalú) times which lack (number) = (count)less times
cf. ēnkkuumbu/nkkúumbu

- waantu-aleembama gentle people (lit. people who have become gentle)

- akiti-afualala successful traders

- awoonso(nc)-awntukaanga all who are born

f) IN ♦ M (pronominal of Series 12):

- impfumu-kwaandi he is in fact the chief cf. ēmpfumu/mpfúmu
  and kwaandi/kwaándi

- yikwa-kwaandi (káka) (only) a few in fact cf. eyikwa/yikwá
  and kwaandi/kwaándi

g) ttuuka- 'since, from' + IN:

- ttuuk'-énthaangwa from the time cf. ōttuuka/ttáuká
- tuuk'-éngutuuka from the birth

2. Compounds with pronominal sc.

These are even more numerous than compounds headed by an IN, in respect of frequency of occurrence.

a) Series 1 pronominal : (i) + IN, in appositional group

- yandỳ-ngudi she the mother cf. oyándi/yaándi
- yau-ùkulu they the ancestors cf. oyáau/yaáu
- zaù-vwa they a ninesome cf. ozáau/zaáu
- dyau-adimosỳ it the same (matter) cf. edýáau/dyaáu
- yandi-nndokỳ he the ill-wisher cf. oyándi/yaándi
(ii) + vo (Class 14 only):

waũ-vo since, because (lit. thus that or now that) cf. owáau/waau

b) Series 2/3 pronominal : (i) + IN (appositional group):

vanxa-nthaandu on the top on there the top
kuna-mázaandu to markets to there the markets
munaX-ndzo in the house in there the house

(ii) + L or K verbal :

literally

dina-dinstånga the which is (L) that one which is

dina-kásola the which he wanted (K) that one he wanted

who knows (L) that one who knows

menX-kazeye the which he knows (K) those which he knows

yevanX-mikitukidi until they have changed with then that they have

(K) changed

(iii) + nominal functioning as Pa to a K verbal

(c) Pa ii K ii

min'-oySandi nkkitÝ kásaŋa kweénda

the which he the trader will go

Q, c) Pa K

din'-oyésto tuzeeye the which we know

c) Series 4 pronominal : (i) + possessive :

edi-dyavveŋga about avoiding this (matter) of avoiding

eki-kyállaamba that of cooking this (task) of cooking

oma-mazziŋyu concerning life these (matters) of life

oma-makyēse the happiness these (matters) of happiness

owu-wankhadílu concerning the thus of character

character
(ii) L or K verbal: literally

edi-ðyâlámândilaanga what followed (L) this which followed
edi-kâzola what he wanted (K) this which he wanted
edi-dîtutwëse that has brought us (L) this which has brought us
ekî-kisiidi what remained this which remained

d) Series 7 (Class 16 only): (i) + K verbal:
literally

vaav'-oįweĥe when you arrive then that you have arrived
vaavâ-kawiidi when he hears then that he has heard
vaav'-oįmweene when you see then that you have seen
vaavâ-kâmâna when he finished then that he finished

(ii) + IN standing as Pa to K verbal:

vaav'-omâna kâyatikidi when the child has started
vaav'-âkulú ėeto bâsadilaanga when our ancestors used to practise

B. Triple compounds

A triple compound consists of two subordinate components, both of which are nominal, and one dominant component, which may or may not be nominal.

It would appear that position as first sc. of a triple compound is limited to pronominals of Series 1, 2/3 and 4, konso- 'any, each' and ttuuka- 'from, since'. The position of second subordinate component may, however be taken by an independent nominal, as well as by a pronominal. The last two components of the compound may come from one of the sets listed above, although not all may participate in triple compounds.
1(a) : IN + possessive: yandi-mpfumu-akaända he the clan chief
yau-akulũ-ceto they our ancestors
konso-ffu-kyãmbi any bad habit
konq-mpfumu-švata each village chief

nkhi- compounds may not however be preceded by another sc.

1(b) : IN + IN : yandi-zulũ-nkhlulu he the first-born

1(d) : IN + X particle: yau-akulũ-mphe they the ancestors also

1(e) : IN + L verbal: konso-ffulu-kyãluunzaanga any place which was painful

2(b) : Series 2/3 pronominal + IN:

ttuuka-munũ-nitu from inside the body

2(c) : Series 4 pronominal + possessive:
muna-owu-wávviimpi as far as health is concerned

Series 4 pronominal + L/K verbal:

konso-eki-kisiidi anything that remained
konso-oy(o)-šzeeye anyone who knows
Appendix IV

Pitch features of questions

Questions are of three types:

i) containing stable question item

ii) ending with e?

iii) with no question morpheme

Each type displaying different pitch features.

i) Questions containing a stable question item, such as nkhi? 'it is what?' and aw?yi 'it is how?' show a much greater range of pitch between peak and base, in the phrase in which the question item occurs, than do other phrases with peak. Peak may occur either in the question item itself, as in

nkhi osǐnga vvaanga? it is what that you are going to do?

or in a compound of which the question item is subordinate component:

nkhi–nthaaangwa besǐnga llwaaka? it is what of time that they are going to arrive?

The peak may be so high that the voice is carried beyond its range, and breaks. There are many examples in the data of the voice breaking at the peak of such a question.

ii) Questions ending with e? display no special pitch features, other than (1) the peculiarity of the final rise on e? found in no other sentence-final vowel. There is no increase of range, such as is displayed by questions of type (i).

1. See 1.2.1.4. and 5.1.
Thus in the following examples, that with final e? has no greater pitch range than the corresponding non-question without the question particle:

osinda-lle? end' ômone e? will you be able to see?
osinda-lle? end' ômmone you will be able to see

iii) Questions without either question item or particle have the peak at do a higher pitch than corresponding non-questions; sometimes, as in type (i), the peak is at breaking-point. Further, there is no fall on a final high tone:

tuyya?ik' ôssalu omásika máamá? shall we begin the work this afternoon?

cf. tuyya?ik' ôssalu omásika máamá we shall begin the work this afternoon
Appendix V

Pitch features of rising sections

As stated in Chapter 1 (1.2.2.), there is more than one type of contour for rising sections of peaked phrases; the steady rise, the 'concave' contour [⁻] and the 'plateau' or 'convex' contour [⁻⁻]. Where the sequence contains more than one potential high tone, realizations under Rule 1 tend to display the 'concave' contour, and those under Rule 2 the 'convex' contour:

\[
\begin{array}{c}
\text{P} \\
\text{edyambu dyankanuumbu}
\end{array}
\]

the matter of the name (Rule 1 modification)

\[
\begin{array}{c}
\text{iA} \\
\text{idyaambu-dyanumbi}
\end{array}
\]

it is a bad affair (Rule 2 modification)

This is, however, no more than a tendency, and exceptions are far too numerous to permit the establishment of exact correlations. Moreover, in the case of 'convex' contours, there is no consistency as to the point at which the rise occurs; it may be before, on, or after the vowel with which potential high tone is associated. For instance, comparison of five occurrences of the phrase \text{idntsai-xennene kikulu 'it is an extremely large country'} showed rise on the first vowel (i-) twice, and on the second vowel (-ntsi-) three times.
It is however interesting to compare the fact of the general tendency of Rule 2 realizations with the findings of Van den Eynde in Yaka and Daeleman in Ntandu (Nthāandu). Phrasing (in my terms) is not reported for their material, but there is a system of 'tone-bridging' at certain points in the sentence, in which pitch is maintained level between two high tones. Van den Eynde, *Eléments de grammaire yaka*, p. 19, states:

'Dans certaines groupes syntaxiques s'établit un "pont tonal" entre les syllabes hautes de deux ou de plusieurs formes.'

An example (p. 20) is:

\[
\text{batádídi bakhóombo} \quad \text{they have seen the goats}
\]

in which the low tone of the prefix ba- of the second item is raised to the level of the flanking high tones, which are spoken on level pitch.

The equivalent of this in Zombo would be:

\[
\text{A Q- batádídí-nkhōombo} \quad \text{they have seen some goats}
\]

the items appearing in composition under Rule 2, with a tendency for 'convex' or 'plateau' contour for the rising section before the peak.

Daeleman reports similar 'bridging' within single items containing two high tones separated by low tone.

This is certainly reminiscent of phrase-initial realizations under Rule 2, and suggests that such a system of 'bridging' may formerly have been prevalent in Zombo.

1. 'In certain syntactic groups there is a "tone-bridge" between the high tone syllables of two or of three forms.'
Appendix VI

Outline of nominal morphology

Note: examples in this appendix are not tonally marked.

The category of nominal can be divided into two broad types:
1. those whose basic structure consists of prefix + stem (full nominals)
2. those whose basic structure consists of a single morpheme (pronominals, selectors).

It is however convenient to exclude from the first type some nominals whose structure contains an element or elements which signal the nominal class, and a residue which is not a class-marker.

An example of the first type is ma-vata 'villages', consisting of ma- Class 6 prefix and stem -vata ; of the type pronominal is m-aa-ma 'these', also of Class 6, of which the first and third elements are class markers, and the second an element -aa- common to all members of this particular series (Series 7) except Class 1, which has -oo-.

1. Nominals of the first type have the following elements of structure:

a) Initial Vowel (IV) which may be e- or o-:

\begin{verbatim}
e-vata  village  e-ffulu  place/s
o-mavata villages e-ndzo  house/s
\end{verbatim}

b) nominal class prefix which may have one of the following shapes:

\begin{verbatim}
zero (Ø) : Ø-vata village (Class 5)
CV- : ma-vata villages (Class 6)
C- : f-fulu place/s (Classes 7/8)
C cluster : nd-zo house/s Classes 9/10)
\end{verbatim}
In some cases the initial phone of the stem (see (c) below) is fused with the prefix, so that there is no clear boundary point:

- lose face (Class 11, typical prefix lu-)

- nkhuumbu name (Class 9, prefix NA-, here realized as n- and aspiration of -k- of the stem -kuumbu)

(c) **nominal stem**, ending always with a vowel, beginning with consonant or vowel:

- ma-vata villages (stem -vata)
- ma-ambu words (stem ambu)

(d) **stem augment**: either (i) an element having the shape of a class prefix, but not controlling agreements, or (ii) an object infix (for independent nomino-verbals of Class 15 only). Many classes have a special shape of prefix before an augment.

- ki-nm-buta age (Class 7 augment prefix ki-; augment -mm- of the shape of Class 9 prefix)

- ku-nu-mona to see you (Class 15 augment prefix ku-; object infix -nu- 'you(pl)' of Class 2, second person)

A nominal may have more than one augment:

- ki-lu-mm-buta conduct befitting an elder

(Class 7 augment prefix ki-; augments -lu- of the shape of Class 11 and -mm- of the shape of Class 9 prefixes)

The augment may have the same shape as a prefix of the class of the true prefix:

- zi-nd-zo houses (Class 10 augment prefix zi-; augment -ni- of the shape of Class 10 prefix)

1. NA- = nasal homorganic with first phone of stem, plus additional element, which may vary in position as well as realization. See further Carter, 'Consonant Reinforcement', p. 123, Table II.

2. Ibid., pp. 132-4, for discussion of 'augment' and 'extra' prefixes.
e) one or more of a number of pre-prefixes:

(i) extra independent prefix (EIP) of one of Classes 16-18 (locative) or Class 19 (diminutive):

(o) mu-ndzo in the house (EIP of Class 18)
(e) fi-njiindu faint ideas (EIP of Class 19)

The EIP, like other class prefixes, may have Initial Vowel attached.

(ii) possessive prefix (p.p.) of the typical shape Ca-, which may have Initial Vowel attached:

evata dya-mmbote a village of goodness
(dya- p.p. pf Class 5, agreeing with evata)
(e) dya-mmbote (some thing) of goodness
(dya- p.p. of Class 5, semi-dependent)

(iii) pre-prefix outside the class system:

i-vata it is the village
se-nnduumba she is now a young woman
ye-vata and/with the village
kwa-Ndzaambi to/by God

(iv) stabilizing pre-prefix of the class system (including persons):

tu-asadisi we are helpers

The minimum shape for this kind of nominal is prefix + stem (prefix may be zero).

2. Nominals of the second type always contain a class marker, not necessarily a prefix. The series require separate description.
Series 1: Classes 2 (3rd person) - 19 consist of an element -aa to which is attached a class marker of the typical shape C-:

(o)yaau they (Class 2, 3rd person)
(e)dyaa it (class 5)

Class 1, all persons, and Class 2, 1st and 2nd persons, have special shapes:

(o)mono I (o)ngeye you(sg) (o)yaandi he, she
(o)yeeto we (o)yeeno you(pl)

Series 2: the typical shape is -na to which is attached a class marker; there is no distinction of persons:

(e)ana, (e)ena those (Class 2)
(e)dina that (Class 5)

Series 3: -na with class marker attached. The marker element has vowel length, in contrast to that of Series 2:

aana, eenä those (Class 2)
diina that (Class 5)

Unlike Series 2, there is no Initial Vowel.

Series 4: this has the shape VCV, with Initial Vowel in addition. -CV is a class marker, and the preceding V- is a) o- for classes with -a or -u as V2 and b) e- for classes with -i as V2. The Initial Vowel is a repetition of V1:

(o)owa these (Class 2)
(e)edi this (Class 5)
(o)owu thus (Class 14)

Series 5: as Series 4, but V2 is -o throughout.

(o)oko there (Class 17)
Series 6: shape CooCo, plus Initial Vowel. C is in both positions a class marker:

(e)woowo the aforesaid (Class 2)
(e)dyoodyo (Class 5)

Series 7: shape CaaCV, plus Initial Vowel, except for Class 1, which has -oo- instead of -aa-. C- and -CV are class markers:

(e)ndyooyo this (Class 1)
(e)waaya these (Class 2)
(e)dyaadi this (Class 5)

Series 8: shape CaaCVna, except for Classes 1 and 2. C- and -CV- are class markers:

(e)ndyoona that very (Class 1)
(e)aana those very (Class 2)
(e)dyaadina that very (Class 5)

Series 9: possessive prefix attached to pronominal stem, which is limited to Classes 1 and 2 (persons distinguished), Class 1 serving for all singular and Class 2 for all plural classes (3rd persons).

-ame Class 1, 1st person -eto Class 2, 1st person
-aku Class 1, 2nd person -eno Class 2, 2nd person
-andi Class 1, 3rd person -au Class 2, 3rd person

The p.p. has the shape Ce- before the stems of Class 2, 1st and 2nd persons.

Series 10: ye- attached to stems as for Series 9; the vowel of ye- assimilates in quality to that of the stem, e.g.

yaame with me yeeto with us
Series 11: shape aCeyi, -C- being a class marker:

adyeyi? which? (in Class 5)
aweyi? how? (in Class 14)
akweyi? where? (in Class 17)

Series 12: kwa- attached to pronominal stem as for Series 9, with assimilation of vowel quality as for the p.p.

Note: the stems of Series 9, 10 and 12 are described as identical; they are however only so from the point of view of shape. Series 9 differs tonally from Series 10 and 12, as may be seen from 3.2.4.
Appendix VII

Outline of verbal morphology

Note: tone is not marked in this appendix. The description covers pure verbals, and dependent nomino-verbals, but not independent nomino-verbals.

The structural elements of a verbal are as follows:

i) **pre-prefix**: shape (C)V--.

   i-wavaanga  he is the one who did, it is he who did
   se-kammona  it is then that he will see
   u-dikkadilaanga  it is thus/how that it is (for)

   Pre-prefixes are limited to L and K verbals.

ii) **concord prefix**: shape zero, CV-, C- or V-. Some zero prefixes are free variants of vocalic prefixes.

   (o)-zolele  you (sg) want
   ma-mmoneka  they (Class 6) will be apparent
   m-amoneka  they (Class 6) appeared
   y-amona  I saw

   (C in this context includes semi-vowels ;)

iii) **pre-radical tense sign**: shapes range from zero to -VCV-.

   tu-Ø-zolele  we want
   tw-a-zola  we wanted
   tu-z-zola  we shall want
   tu-ku-enda  (real. tukweenda) we shall go
   tw-am-mona  we did in fact see
   tw-aku-enda  (real. twakweenda) we did in fact go
iv) **object infix**, one of a set of six, restricted to persons of Classes a and 2. Shapes are -C-, -V-, and -CV-, including consonant clusters under -C-, but not semi-vowels.

\[
\begin{align*}
\text{twa-s-seva} & \quad \text{we laughed at you (sg)} \\
\text{twa-a-seva} & \quad \text{we laughed at them (Class 2)} \\
\text{twa-nu-seva} & \quad \text{we laughed at you (pl)} \\
\text{ba-nt-seva} & \quad \text{they laughed at me} \\
\text{ba-ns-seva} & \quad \text{they laughed at him (her)}
\end{align*}
\]

Object substitutes of other nominal classes are not infixes.

v) **verbal radical**: minimum shape -C-. The radical may be simplex (unextended) or include one or more of a number of verbal extensions, i.e., be extended.

\[
\begin{align*}
\text{ya-vaang-a} & \quad \text{I did, I made} \quad (-\text{vaang- do, make}) \\
\text{dya-vaangw-a} & \quad \text{it was made} \quad (-\text{vaangw- be made}) \\
\text{ya-vaangilw-a} & \quad \text{I was made for, had made for me} \quad (-\text{vaangilw- be made for})
\end{align*}
\]

vi) **final vowel**: -a or -i. This is part of the tense sign.

\[
\begin{align*}
\text{untsoong-i} & \quad \text{tell me} \\
\text{wantsoong-a} & \quad \text{you told me}
\end{align*}
\]

vii) **perfect suffix**: in complementary distribution with (vi).

The typical shape of the suffix is -VCV for simplex and -VVCV for extended radicals. Vowel and consonant harmonize with those of the radical, and in some cases there is fusion of radical and suffix.
tuzol-ele we have desired (= we want); radical -zol-
dimonek-ene it has appeared; radical -monek-
tusad-idi we have worked; radical -sal-
tukan-ini we have intended; radical -kan-
basukwiidi they have washed; radical -sukul-
oveenge he has done, made; radical -vaang-
oteele he has said; radical -t-

The passive extension occurs after the perfect suffix (the only extension to do so) and displays fusion with it:

osev-ele he has laughed at; cf. osev-ele he has laughed
oveang-iili he has been made for; cf. ovaang-iidi he has made for

viii) **continuative suffix**: shape -VngV, V harmonizing with preceding vowel.
oveenge-enge he has been doing; cf. oveenge he has done
bazola-anga they used to want; cf. bazola they wanted
badiidi-ingi or badiidi-inge they always used to eat;
    cf. badiidi they had eaten

The minimum structure of a verbal is radical + final vowel,
e.g. vaang-a 'do (imper.)'.

l. The sequence *1i is excluded in Zombo, and appears as di.
List of nucleus tenses

Tense sign allomorphs are shown separated by slash, the first being the shape before radicals commencing with a consonant, and the second that before vowel-commencing radicals and object infixes.

1. cp - C / ku - radical - a (anga) : Future (Present)
   - di-m-monek-a it will appear
   - di-m-monek-a-anga it will (always) appear
   - tu-ku-m-mon-a we shall see you (sg)
   - tu-ku-m-mon-a-anga we (always) see you
   - tu-ku-end-a (real.) tukweenda we shall go
   - tu-ku-end-a-anga we (always) go

   Time-reference is to the future, without continuative suffix, and to the timeless or general present, when the suffix is present.

2. cp - a - radical - a (anga) : Narrative Past (Continuous)
   - dy-a-monek-a it appeared
   - dy-a-monek-a-anga it used to appear
   - tw-a-m-mon-a we saw you
   - tw-a-m-mon-a-anga we used to see you
   - tw-a-yend-a we went
   - tw-a-yend-a-anga we used to go

   Time-reference is to the past, but not of the day of speaking. The suffix adds the connotation 'used to, would'. This tense implies a 'detached' attitude on the part of the speaker.
3. **cp - aC /aku - radical - a (anga): Emphatic Past (Continuous)**

- **dy-am-monek-a** it actually did appear
- **dy-am-monek-a-anga** it did in fact use to appear
- **tw-aku-m-mon-a** we actually did see you
- **tw-aku-m-mon-a-anga** we actually did use to see you
- **tw-aku-enda (real. twakweenda)** we actually did go
- **tw-aku-end-a-anga** we actually did use to go

Time-reference is to the past of before the day of speaking, with implications of emphasis. This tense is used when the listener has expressed or implied contradiction, or disbelief is expected, owing to the nature of the statement made. It contrasts in this sense with Tense 2.

4. **cp - radical - prefect suffix (continuative suffix): Present Perfect (Continuous/Pluperfect)**

- **di-monek-ene** it has been seen, is visible
- **di-monek-ene-enge** it had been seen, has been being seen
- **tu-m-mweene** we have seen you, can see you, will see you
- **tu-m-mweene-enge** we had seen you, were seeing you
- **tw-eele** we went, have gone, are going in a moment
- **tw-eele-enge** we had gone, were going, have been going

Time-reference is to past of today, present (actual) and near future; also to yesterday, with implications of 'involvement', when it contrasts with Tense 2. The suffix adds the notion of duration or pluperfect.

---

1. Bentley terms this the 'Narrative' tense, e.g. *Dictionary*, p. 660, and Tense 2 the 'Past Indefinite'.

2. E.g., when speaking of a heart transplant, the informant said, *kəzziŋa* 'he actually did live' (which was unexpected in the circumstances).
5. cp - a - radical - perfect suffix (continuative suffix):

Past Perfect (Continuous)

- dy-a-monek-ens it had been seen, was seen
- dy-a-monek-enbe-enge it was always seen
- tw-a-m-mweene we had seen you
- tw-a-m-mweene-enge we always used to see you
- tw-a-yels we had gone
- tw-a-yels-enge we always used to go

Time-reference is to the remote past; with the continuative suffix, the sense is 'always'. In some contexts a pluperfect is a suitable rendering. This tense is not well represented in the data, except in the negative, 'never used to'.

6. cp - radical - a / i : Imperative

Final vowel -a for singular and -i for plural persons. This tense is limited to 2nd persons; the singular cp is zero, the plural nu-.

- vaang-a do (sg) u-end-a (real. weenda) go (sg)
- nu-vaang-i do (pl) nu-end-a (real. mweenda) go (pl)

7. cp - radical - a : Hortative.

- tu-yaantik-a let us begin
- ka-end-a (real. weenda) let him go
8. **cp - a - radical - a**: known as 'Subjunctive'

   *dy-a-monek-a* (that) it may appear

   *tw-a-m-mon-a* (that) we may see you (sg)

This tense functions only as nucleus verbal within G.
Appendix VIII

Tables of verbal tense patterns

Verbals are shown with basic tonal structure, not as they appear under initial realization rules. The tenses have been selected as showing points of particular interest.

Tense 1 shows no differentiation of pattern for persons, but there is a difference associated with inclusion of an object infix, for radicals of TCIII. There is some distinction between A/L and K patterns.

Tense 2 likewise shows no differentiation of persons. Radicals of different TCs are distinguished; inclusion of an object infix is not associated with an extra high tone.

Tense 4 displays differentiation associated with persons and TC of the radical, also inclusion of an infix in some cases. There are minor differences between A and L/K patterns.

Tense 8 has no corresponding L and K verbals. Persons are not distinguished, nor are radicals of different TCs, unless there is an infix. Inclusion of an infix is associated with presence of a high tone; without this, no forms have high tone at all.
Notes on Tense 1

The only cases of distinction between A/L and K tenses are when the radical is of TCI, up to -CV:C- in length, and has no continuative suffix. In these cases also, the verbals of the A and L series show high tone on the pre-radical vowel, and only one high tone, in contrast to the longer TCIy radicals.

Note also that the addition of an extension to one of these shorter radicals produces a radical in TCIy: ób-bwa / b-bwá 'to fall', but ób-bwiilá / b-bwiilá 'to befall'; and óm-mona / m-móna 'to see' but óm-moneka / m-moneka 'to appear'. These extended radicals accordingly show the tense patterns of Iy.

Addition of the continuative suffix to TCI verbals is associated with the presence of a second high tone; in the case of longer radicals of TCIy, however, there is no extra (third) high tone. TCIII radicals also do not show a high tone associated with the presence of the suffix.

It is tempting to argue from this that TCI is a shorter from of TCIy; against this however must be set the fact that there is a similar relationship between TCI series I and Iz.

The patterns of A and L verbals are identical throughout, nor is there morphological variation. (Contrast with Tense 4, where A and L verbals differ tonally but not morphologically.)
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Reversed root variations for all patterns with two initial tones

<table>
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*without object prefix or conjugative suffix*
Forms whose present tense is preceded by an object in the nominative case.

The forms have reversed final vowels.

(1) He receives, he accepts.
(2) He teaches, he teaches.
(3) He teaches, he teaches.
(4) He teaches, he teaches.
(5) He teaches, he teaches.

Class II forms, with continuative suffix attached.
| III  | he will forget us |
| ---  | he will replace us |
| III  | he will visit us |
| III  | he will return us |
| III  | he will teach us |
| III  | he will carry us |

| I  | he will remember us |
| ---  | he will wait for us |
| I  | he will help us |
| I  | he will love us |
| I  | he will tell us |
| I  | he will see us |
| I  | he will hear us |

(With object in fix, without continuative suffix)
(With object infix and continuative suffix)

| III | II(3) > VI(16) | otunuyakanan' | otunuyakanan' |
| III | II(3) > VI(16) | otunuyakanan' | otunuyakanan' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |
| III | II(3) > VI(16) | otunuyakan'an' | otunuyakan'an' |

He teaches us

He remembers us

He waits for us

He helps us

He tells us

He sees us

He hears us

Class 15 Int
Notes on Tense 2

Of all tenses, this is the simplest to describe. The patterns throughout can be stated for TCIII radicals as 'high tone on first radical vowel' and for TCs I and Iy as 'high tone on pre-radical vowel'. Inclusion of object infix, and addition of continuative suffix, make no difference to the description. There is no distinction of persons.

This is however one of the tenses in which the TCIII radical -kal- 'be' does not show the patterns associated with other TCIII radicals, but shares those of TCI: wákala(anga) 'he was (used to be)' cf. wámona(anga) 'he saw (used to see)'. 
<table>
<thead>
<tr>
<th>Tense 2</th>
<th>op - a - radical (anga)</th>
<th>Narrative Past (Continuous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>he forgot (used to forget)</td>
<td>he remembered (need to remember)</td>
</tr>
<tr>
<td>III</td>
<td>he replaced (used to replace)</td>
<td>he waited (used to wait for)</td>
</tr>
<tr>
<td>III</td>
<td>he waited (used to wait)</td>
<td>he helped (need to help)</td>
</tr>
<tr>
<td>III</td>
<td>he helped (need to help)</td>
<td>he gave (need to give)</td>
</tr>
<tr>
<td>III</td>
<td>he gave (need to give)</td>
<td>he told (used to tell)</td>
</tr>
<tr>
<td>III</td>
<td>he told (used to tell)</td>
<td>he saw (need to see)</td>
</tr>
<tr>
<td>III</td>
<td>he saw (need to see)</td>
<td>he heard (used to hear)</td>
</tr>
</tbody>
</table>

(Tense 2) *without object (with) without contributive suffix*
<table>
<thead>
<tr>
<th>Verb</th>
<th>3rd Person Singular</th>
<th>3rd Person Plural</th>
<th>Object State</th>
<th>Subject State</th>
</tr>
</thead>
<tbody>
<tr>
<td>He forgot (used to forget)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He replaced (used to replace)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He visited (used to visit)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He requested (used to request)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He taught (used to teach)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He carried (used to carry)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He remembered (used to remember)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He waited for (used to wait for)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He helped (used to help)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He gave (used to give)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He told (used to tell)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He saw (used to see)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
<tr>
<td>He heard (used to hear)</td>
<td>us</td>
<td>us</td>
<td>us</td>
<td>us</td>
</tr>
</tbody>
</table>

*The text is in a mix of English and another language, possibly a linguistic study or translation exercise.*
Notes on Tense 4

This is one of the most interesting of the tenses, and not amenable to simple description.

1st and 2nd persons are distinct from 3rd persons throughout the A verbals, but not in L or K verbals.

A has different patterns from L and K:

i) for 3rd persons only, with radicals of TCs I and Iy, when there is neither infix nor continuative suffix

ii) for 1st and 2nd persons only, with radicals of TCIII, when there is neither infix nor continuative suffix

iii) for 1st and 2nd persons only, but with all radicals, when there is an infix

iv) for 1st and 2nd persons only, when there is a continuative suffix but no infix.

Infixed forms are different from those without infix:

i) for 3rd persons with TCIII radical throughout (patterns as for TCI and Iy)

ii) for 1st and 2nd persons in L and K tenses only, whether with suffix or not.

TCI and Iy radicals have different patterns from those of TCIII:

i) 3rd persons only, A verbals without infix (with/without suffix)

ii) all persons, L and K verbals without infix (with/without suffix)

L and K verbals do not differ tonally in any case.

Notwithstanding the number of distinctions, there are only four types of pattern:

a) no high tone

b) high tone on first vowel of radical

c) high tone on second vowel of stem

d) high tone on first radical vowel and final (or pre-final).
<table>
<thead>
<tr>
<th>ING or Class</th>
<th>k</th>
<th>l</th>
<th>a</th>
</tr>
</thead>
</table>

(a) without suffix or continuative suffix

N.B. Illustration is limited to radicals with unused suffix.

Tense 1. cop. radic. - perfect (continuative/Pluperfect)
<table>
<thead>
<tr>
<th>Verb</th>
<th>Active Form</th>
<th>Passive Form</th>
<th>Infinitive Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(o)</td>
<td>he has thought of you</td>
<td>I have thought of you</td>
<td>to think</td>
</tr>
<tr>
<td>(o)</td>
<td>I have regarded you</td>
<td>you have been regarded</td>
<td>to regard</td>
</tr>
<tr>
<td>(o)</td>
<td>I have laughed at you</td>
<td>you have been laughed at</td>
<td>to laugh</td>
</tr>
<tr>
<td>(o)</td>
<td>I have prepared you</td>
<td>you have been prepared</td>
<td>to prepare</td>
</tr>
<tr>
<td>(o)</td>
<td>I have left you</td>
<td>you have been left</td>
<td>to leave</td>
</tr>
<tr>
<td>(o)</td>
<td>I have looked at you</td>
<td>you have been looked at</td>
<td>to look</td>
</tr>
<tr>
<td>(o)</td>
<td>I have heard you</td>
<td>you have been heard</td>
<td>to hear</td>
</tr>
</tbody>
</table>

*Note: The above table shows the conjugation of verbs in English. The left column represents the past tense of the verb, the middle column shows the passive voice, and the right column lists the infinitive form. The table is based on the English language without the suffix that indicates the conjugation of the verb.
<table>
<thead>
<tr>
<th>Part</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 5</td>
<td><em>Noun</em></td>
<td>I had thought we had rehearsed.</td>
</tr>
<tr>
<td>Ch. 5</td>
<td><em>Verb</em></td>
<td>I had rehearsed.</td>
</tr>
<tr>
<td>Ch. 5</td>
<td><em>Adjective</em></td>
<td>I had looked.</td>
</tr>
<tr>
<td>Ch. 5</td>
<td><em>Adverb</em></td>
<td>I had heard.</td>
</tr>
<tr>
<td>Ch. 5</td>
<td><em>Preposition</em></td>
<td>I had thought without suffix.</td>
</tr>
</tbody>
</table>

*INCl of class 15 without suffix with continuative suffix attached*
<table>
<thead>
<tr>
<th>Verb Form</th>
<th>Conjugation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;had&quot;</td>
<td>&quot;considered&quot;</td>
<td>You</td>
</tr>
<tr>
<td>&quot;you&quot;</td>
<td>&quot;inubadikidiinge&quot;</td>
<td>Preposition</td>
</tr>
<tr>
<td>&quot;he&quot;</td>
<td>&quot;considered&quot;</td>
<td>You</td>
</tr>
<tr>
<td>&quot;had&quot;</td>
<td>&quot;needed&quot;</td>
<td>You</td>
</tr>
<tr>
<td>&quot;you&quot;</td>
<td>&quot;inubadikidiinge&quot;</td>
<td>Preposition</td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>&quot;had&quot;</td>
<td>Prepared</td>
</tr>
<tr>
<td>&quot;you&quot;</td>
<td>&quot;inubadikidiinge&quot;</td>
<td>Preposition</td>
</tr>
<tr>
<td>&quot;he&quot;</td>
<td>&quot;had&quot;</td>
<td>Looked at</td>
</tr>
<tr>
<td>&quot;you&quot;</td>
<td>&quot;inubadikidiinge&quot;</td>
<td>Preposition</td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>&quot;had&quot;</td>
<td>Heard</td>
</tr>
</tbody>
</table>

Note: The table format is used to represent verb conjugations with object infix and continuative suffix.
Notes on Tense 8

It will be seen that patterns of forms without infix do not display differentiation associated with the presence of radicals of different TCs; where there is an infix however the stem patterns are similar to those of the INV Variant 2, e.g. katumóna cf. m-móna, katunatá, cf. n-natá.

Basic tonal structure of items with two high tones is deduced from phrase-initial occurrences with following item of a kind regularly found in composition with the verbal, such as an X unit (see 6.1.1.), e.g.

katuvanā kāka that he may give us only (1)
cf. katusonga-kāka that he may show/tell us only

All instances of this tense are phrase-initial, appearing only as A head within G.

1. This does not of course imply that X items are always in composition; see. e.g. 5.4. and 6.4. (last para. on p. 270).
<table>
<thead>
<tr>
<th>Tense</th>
<th>- a</th>
<th>- a - radical</th>
<th>a Subjunctive</th>
<th>a</th>
<th>with object suffix</th>
<th>b) without object suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>he may recall</td>
<td>he recall</td>
<td>I</td>
<td>he may</td>
<td>he may recall</td>
</tr>
</tbody>
</table>
Appendix IX

Auxiliary verbs

Many auxiliaries are limited as to the tenses in which they appear; -nkhwa 'might do' for example is limited to Tense 7, while -luta appears in all tenses, and has a Perfect suffix -lutidi. The eighteen auxiliaries so far recorded are as follows (tones unmarked except in examples):

-adi would, would have
-ende, -ele go and
-fwete should, ought
-iza, -izidi come and
-kala, -kedi be
-kutukwa (or -utukwa)

be liable to

-yadi-wó kúvvaanaangá I would have given it to you
-...vó / kenda-kkiyíla that/she may go and visit
-fwete-kkalá she must be
-kafwete-kwiza-wwaína she must come and find
-kwaama keep doing
-waína kakédi ddýángá while he was eating
-lembi, -lembele not do
-wákwaama-ssálaangá káka he just kept on working
-avnó / sêlembele-ddýatá if / it is now that he has failed to walk (if after all he hasn't...)

-lená may, might
-luta, -lutidi rather, usually do
-olýta-ttóma llongókaanga he usually learns best
-maná, -mene have done
-vaav'-oméne ssála when you have done working
-nkhwa might do
-bankhwa-ddíykílwa they might be poisoned

-sala, -sidi manage to, ketausidi-wwá ko we have never yet heard

1. Note composition over three items of the verbal group here.
2. Found only in negative constructions in the data.
-singa shall, will do  
isínga-vvůtuká  I shall return
-teka, -tekele do first  
fwete-ttěka-ssukůla you must first wash
-toma, -tomene do well,  
toma-wwaända sit properly
properly, a lot, naturally, of course
-vita, -vitidi do previously  
ně / ḣtuvitidi-vvůva kalá as / we have already stated before
-vika happen by chance,  
ně / sèvika-ssyã vo although
fortunately, unexpectedly  
(lit. / like / it is to happen fortunately putting that)

The gemination which serves as tense sign in Tenses 1 and 3 is absent from auxiliaries, but the alternative -ku- appears as-kw- where the radical is vowel-commencing:

ikwënda-ttšalá I shall go and look

In one case it is not certain whether -k(u)- appearing at the beginning of the radical represents the tense sign, or is part of the radical:

ukutỳkwa-bbwá dyaãka it might fall (-kutukwa or -utukwa)

1. Composition over three items.

2. Laman gives -kutwa; Bentley has no equivalent. Bentley admits as auxiliaries some radicals which are not classed as such here, e.g.-zol- 'want,
Appendix X

A note on kadi

The particle kadi 'because' is classified as a member of the G/SC and is capable of functioning also as nucleus:

\[(G: \quad P \quad X \quad iA)\]

kadi / lpoolo mphe / ilwâkala because / this also / is what was

\[P \quad A(G: \quad A \quad C)\]

êkkuma / kâdi / kyâkala-kyâzuungâ (C is a member of the L/SC)

the reason / is because / it was surrounded

There is a problem here in reconciling the two patterns kadi (low tone only) when the item stands as G only, and kâdi (high-low) when it functions also as A. Given that phrase-initial particles in all other instances appear to be subject to Rule 2 modification, the analysis *kâdi —— kâdi for the first case, implying Rule 1 modification, does not accord with the general position.

Occurrence of kâdi 'it is because', i.e., as a nucleus, appears to be limited to the context of êkkuma 'the reason' as P; it is in the nature of a fixed expression. Nor may any item intervene between the two; if êkkuma heads a P unit containing other items, the nucleus is not kâdi:

\[P \quad Pa \quad K \quad N\quad iA(c) \quad iI \quad \varepsilon\]

êkkuma yâandi ... kenânaanga / yofinjyiïndu / ... / imunâ-kkuma kyâsya vë

the reason (that) he...is / with a faint notion / ... / is on account of the fact that

The best solution here appears to be to regard the two patterns as representing different basic tonal structures: *kadi (G only) and *kâdi (A). It will be remembered that there is a somewhat similar situation with regard to stabilized L and K verbals which have an extra high tone when stabilized in the iA slot, when otherwise there is no high tone in
the basic pattern (and when they appear as dc. of a compound), e.g.

...kazolele 'what he wants' (K) but / ñkazolele 'it is what he wants' ( [iK] )
(also / diná-kazolele 'the which he wants' (c)).
CONSONANT REINFORCEMENT AND KONGO MORPHOLOGY

BY

HAZEL CARTER

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CONSONANT REINFORCEMENT AND KONGO MORPHOLOGY

By HAZEL CARTER

INTRODUCTION

It is fitting that an article devoted to Kongo should find a place in a volume dedicated to Professor Guthrie, whose name has been associated with the study of the languages of the Congo for many years. It is entirely owing to his encouragement that the writer undertook the present research, to promote which Professor Guthrie gave generously of his time, advice and data collected by himself.

This study is based on information obtained over the past three years from a Kongo (Koongo) speaker of the Zoombo dialect, Sr. João Makondekwa from the Kibokolo area of Angola. His patience, good humour and deep knowledge of his own language have been a constant help. A further, and very considerable, debt of thanks is owing to Mr. Jack Carnochan, Reader in Phonetics at the School of Oriental and African Studies, University of London, who spent a great deal of time analysing examples and preparing spectrograms, some of which appear on the Plates.

This article, however, is not chiefly concerned with the phonetic aspects of reinforcement, interesting though these are, and little space has been given to them. The purpose is rather to show the place of reinforcement in the morphology of Zoombo. Adequate description of this dialect is impossible unless reinforcement is taken into account. Certain areas of the verbal tense, object infix and noun and adjective class prefix systems appear quite unsystematic if reinforcement is not recognized.

The phenomenon called here ‘reinforcement’ was first recognized by Bittremieux in Mayombe, where it plays a similar role in the morphology. Bittremieux describes it as a ‘strong accentuation of the first syllable... which results particularly in greater length of the consonant’.\(^1\) It certainly exists in at least one other dialect, Ngombe, and there are indications that it is found elsewhere.

A note on spelling is necessary, since the notation adopted here has been developed to meet the special needs of Zoombo.\(^2\)

\(^1\) ‘Een krachtige beklemtoning van de eerste syllabe... die vooral uitkomt in het langer aanhouden van de medeklinker.’ L. Bittremieux, ‘De weglating van het prefix in het Kikongo’, Kongo-Overzee, IX, 1943, 67. Professor A. E. Meeussen kindly drew my attention to Bittremieux’s work after having seen the first draft of this article.

\(^2\) This orthography is slightly different from that used in a previous article, ‘Notes on legal terminology in the Zoombo dialect of Koongo (Angola)’, João Makondekwa and Hazel Carter, *African Language Review*, VII, 1968, 23–46. Reinforcement had not then been fully recognized, especially after nasals, and nj and ng were not distinguished.
n before velars k, g, w represents a velar nasal
n before palatals j, y represents a palatal nasal
n elsewhere represents an alveolar nasal
i represents a palatal voiced plosive (stop)
h indicates aspiration of the preceding consonant

Double consonants are also used and the meaning of these is explained later. Vowels written double have two functions: (i) to indicate a long vowel, as in nkhuumbu ‘name’ and (ii) to represent a double vowel, as in taata ‘father’. It is necessary to distinguish between long and double vowels for some purposes, but these are not relevant here.

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1.2 Distribution of reinforcement
1.3 Reinforcement of vowels
1.4 Nasal combinations
   Table II: NA- combinations

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   2.13 Past emphatic
   2.14 Past emphatic continuative
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3.0 SYLLABICITY OF REINFORCED CONSONANTS AND OF NASALS IN COMBINATIONS

4.0 REINFORCEMENT IN OTHER DIALECTS
1.0 REINFORCEMENT

Most consonants and both semi-vowels are found in a 'plain' and a 'reinforced' form. The phonetic features associated with reinforcement (R) are described in more detail under 1.1; for the moment it will merely be stated that a reinforced consonant (RC) is in general longer than its plain counterpart, but additional duration is not the only, perhaps not the most significant, feature from the point of view of auditory discrimination. There is additional tension of the articulatory organs during utterance, with often an increase of 'forcefulness' at the beginning of the following vowel. This is heard as greater prominence of both consonant and vowel.3

To indicate R the notation adopted is doubling of the letter:

\[\text{se (he is a father)} \quad \text{sse (it is a colour)}\]

\[\text{se has plain s and sse has reinforced s. This notation should not be taken to indicate 'gemination'; in ordinary speech at normal speeds the difference in duration of s and ss is minimal and scarcely observable.}\]

A slightly modified notation is used for indicating C followed by RC, when C in each case is a nasal, m or n. A triple letter would be consistent, e.g.

\[\text{yammmona I saw him}\]

\[\text{the first m standing for plain m and the last two for reinforced m (mm). But this entails having to 'count the minims' while reading and could cause momentary confusion if one m is missed. Such combinations are therefore written with double letter only, the second underlined:}\]

\[\text{yammmona I saw him}\]

Table I shows the consonants of Zoombo; those which are not found in reinforced form are bracketed. Reinforcement of vowels is dealt with in 1.3.

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HAZEL CARTER

TABLE I

THE CONSONANTS OF ZOOMBO

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Bilabial/labio-dental</th>
<th>Alveolar/palato-alveolar</th>
<th>Palatal</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiced plosives</td>
<td>b</td>
<td>d</td>
<td>(j)</td>
<td>(g)</td>
</tr>
<tr>
<td>Voiceless plosives</td>
<td>p</td>
<td>t</td>
<td></td>
<td>k, kk*</td>
</tr>
<tr>
<td>Voiced fricatives</td>
<td>v/β</td>
<td>z/ʒ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiceless fricatives</td>
<td>f</td>
<td>s/ʃ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasals</td>
<td>m</td>
<td>n</td>
<td>(n)</td>
<td>(n)</td>
</tr>
<tr>
<td>Lateral</td>
<td>l</td>
<td>y</td>
<td></td>
<td>w</td>
</tr>
<tr>
<td>Semi-vowels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*kk is the only RC contrasting with plain k in lexical items; see 1.2
j and g appear only as second element in nasal combinations
β is a free variant of v and is found in R form
ʒ is a free variant of ʒ before i, and ʃ is a free variant of s before i; both are found in R form
n (palatal) and n (velar) only occur as first component of a nasal combination
Consonants in parentheses are not found reinforced

1.1 The phonetic nature of reinforcement

This section (1.1) is based on notes supplied by Mr. J. Carnochan.

Reinforced consonants in general are longer than plain consonants, as will be seen from the spectrograms, but the variation proportionately is so great that it is hardly justifiable to regard the phenomenon as gemination. In addition, R frequently implies a firmer contact or closer approximation of the articulatory organs which is perhaps more significant than additional duration. For instance, the semi-vowels yy and ww often have audible friction, particularly when they follow a nasal. Diminution in the amplitude display, shown as a downward slope or 'valley' in the curve, indicates this firmer contact. In some cases there is a 'push' at the beginning of the following vowel, indicated by a 'peak' in the amplitude display, which may be considered a feature of the release of a RC.

In the spectrograms, RC's are shown contrasted with three other types:

(i) Plain C contrasted with RC (Nos. 1-10).
(ii) Nasal (N) + RC contrasted with nasal combination containing the corresponding unreinforced C (Nos. 11-18).
(iii) Plain C + RC, contrasted with RC only (Nos. 19-20). C in this case is a nasal.

4 The Plates were prepared for publication by Mr. A. W. Stone, Chief Technician in the Department of Phonetics and Linguistics, School of Oriental and African Studies.
(i) Plain C/RC

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>b/bb</td>
<td>yabaka</td>
<td>I seized</td>
<td>(No. 1)</td>
</tr>
<tr>
<td></td>
<td>yabbaka</td>
<td>I did seize</td>
<td>(No. 2)</td>
</tr>
</tbody>
</table>

The duration of the bilabial closure is \( \cdot 1 \) sec. for \( b \) and \( \cdot 2 \) sec. for \( bb \).

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>k/kk</td>
<td>ikono</td>
<td>it is the stop/chapter</td>
<td>(No. 3)</td>
</tr>
<tr>
<td></td>
<td>ikkono</td>
<td>it is the portion</td>
<td>(No. 4)</td>
</tr>
</tbody>
</table>

Duration of the closure for the velar plosive is approximately \( \cdot 1 \) sec. for \( k \) and \( \cdot 3 \) sec. for \( kk \).

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>s/ss</td>
<td>ise</td>
<td>it is the father</td>
<td>(No. 5)</td>
</tr>
<tr>
<td></td>
<td>isse</td>
<td>it is the colour</td>
<td>(No. 6)</td>
</tr>
</tbody>
</table>

The period of friction seen on the spectrograms shows that the sibilant is longer for \( ss \), approximately \( \cdot 25 \) sec., while \( s \) has approximately \( \cdot 15 \) sec. duration.

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>m/mm</td>
<td>yamona</td>
<td>I saw</td>
<td>(No. 7)</td>
</tr>
<tr>
<td></td>
<td>yammona</td>
<td>I did see</td>
<td>(No. 8)</td>
</tr>
</tbody>
</table>

The duration of the nasal is \( \cdot 5 \) sec. for \( m \) and \( 1 \cdot 0 \) sec. for \( mm \). There is a slight increase in amplitude on the vowel to the \( m \), and this consonant articulation has the maximum amplitude in the utterance; there is no extra ‘push’ (peak) on its release. In \( yammona \), the amplitude display shows the preceding vowel having greater amplitude; the \( mm \) is lower, diminishing until the closure is released, when the amplitude increases abruptly with a push on the following vowel. This may partly correlate with differences in the pitches of the two examples. \( yámona \) high-low-low; \( yámmóna \) high-high-low; but cf. Nos. 19 and 20 which have the same tone-pattern as \( yámona \) and extra push for the vowel following reinforced \( m \).—Author’s note.)

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/ww</td>
<td>wawa</td>
<td>you heard</td>
<td>(No. 9)</td>
</tr>
<tr>
<td></td>
<td>wawwa</td>
<td>you did hear</td>
<td>(No. 10)</td>
</tr>
</tbody>
</table>

It is difficult to delimit the duration of the semi-vowel articulations, but \( ww \) is certainly longer than \( w \). In addition the diminution in amplitude as indicated by the deeper valley in the curve is greater in \( wawwa \) than in \( wawa \), with a much greater increase for the final vowel. This may partly correlate with differences in the pitches of the two examples. \( wáwa \) high-low, \( wáwwá \) high-high falling.—Author’s note.)

(ii) N + RC/N + combination containing no RC

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>mbb/mmb</td>
<td>imbbu</td>
<td>it is the sea</td>
<td>(No. 11)</td>
</tr>
<tr>
<td></td>
<td>immbu</td>
<td>it is the mosquito</td>
<td>(No. 12)</td>
</tr>
</tbody>
</table>

Overall durations of \( mbb \) and \( mmb \) as measured from the amplitude displays are equal, but in \( mbb \) the bilabial closure duration is longer than in \( mmb \), and the
HAZEL CARTER

bilabial nasal is shorter in mbb than in mmb. The difference can be seen clearly enough on the spectrograms, but the durations are only of the order of .08 sec. for bb and .04 sec. for b. The amplitude display shows a more marked diminution for mm than for plain m. This pair is interesting in that two contrasts are shown: m/mm and bb/b.

nkk/nkh  inkkumbu  it is the time  (No. 13)
inlkumbu  it is the name  (No. 14)

nkk and nkh have almost identical durations. In both cases there is an increase in amplitude for the velar nasal after i- and the duration of the nasal is approximately .1 sec. The reinforced velar plosive kk is released after a further .15 sec. In nkh the plain k is released after approximately .08 sec., but there follows a further .09 sec. of aspiration before the voicing of the vowel.

nss/nts  wanseva  he laughed at him  (No. 15)
wantséva  he laughed at me  (No. 16)

In nss the duration of the sibilant is approximately .2 sec. and the diminution of amplitude during the nasal is gradual. In nts the diminution is more abrupt and is greater, as a stop (t) is made between the nasal and the sibilant. The time between the nasal and the beginning of the vowel e is approximately .2 sec. in wansseva and approximately .15 sec. in wantséva. The example with RC also shows a moment of diminution of amplitude preceding the onset of the sibilant, as though the firmness of contact made with the teeth-ridge led to a momentary alveolar closure. There is a slight dip in the amplitude display at the corresponding place for wantséva.

nww/ngw  wanwwa  you heard him  (No. 17)
wangwa  you heard me  (No. 18)

In ngw there is a valley in the amplitude display, corresponding to the velar closure, and in nww there is a longer valley. The formant associated with nasality is stronger (darker on the spectrogram) in ngw than in nww, but its limit is clearly seen. The example with ww has a longer semi-vowel articulation, with also a closer articulation, as is shown by the diminution of the amplitude. In this particular case there is velar closure, although in other examples there is no closure but some voiced friction.

(iii) N + RN/RN

mmp/mm  yammona  I saw him  (No. 19)
yammona  I saw you  (No. 20)

Duration of the nasal is 1.2 sec. for mmp and .85 sec. for mm. In both cases there is a peak in the amplitude display showing a push in the articulation on the release of the reinforced nasal. Cf. yammona (No. 8) with a similar peak and
yamona (No. 7) without a peak. (Nos. 7, 19 and 20 have identical tone-pattern: high-low-low.—Author’s note.)

Kymograph tracings (not shown here) of other examples of N + RC indicate more prominent nasality of a preceding vowel than is the case for vowels before RN, plain N and N combinations not including RC.

\[\text{unn} / \text{unn} \quad \text{ikun} \text{gata} \quad \text{I shall carry him} \]
\[\text{unn} \quad \text{ikun} \text{nata} \quad \text{I shall carry you} \]

In unn the vowel has prominent nasality; in unn the vowel has much less. Differences in the quality of these two vowels were also observed. In unn the vowel has almost the quality of \([\circ]\) with little or no lip-rounding, while the vowel in unn was \([u]\) with lip-rounding.

1.2 Distribution of reinforcement

From the morphological point of view, RC’s are only found when \(C\) is in \(C_1\) position. From the phonetic point of view, they occur:

(a) Initially \(\text{sse}\) (it is) a colour
(b) Intervocally \(\text{yasse} \text{va}\) I did laugh
(c) After nasals \(\text{yansse} \text{va}\) I laughed at him
(d) Before voiced plosives \(\text{wammbona}\) he saw me

RC’s in a combination are always homorganic to the adjacent element of the combination:

- \(\text{mbb, mpp, mvv, mff, mm}\) (bilabial and labio-dental)
- \(\text{ndd, ntt, nzz, nss, nŋ, nll}\) (alveolar and palato-alveolar)
- \(\text{nny}\) (palatal)
- \(\text{nkk, nww}\) (velar)

Reinforced nasals (RN’s) occur before voiced plosives:

- \(\text{mmmb, nnd}\) (but not \(*\text{nnj}, *\text{nnng}\)

Plain and reinforced variants of \(k\) are found in lexical items:

\(\text{yakala}\) I was (stem -kala), past narrative tense
\(\text{yakkala}\) I denied (stem -kkala), past narrative tense

Where \(\text{kk}\) occurs in conditions where other consonants are subject to R, there is no contrast between plain \(\text{kk}\) and reinforced \(\text{kk}\):

\(\text{yakkala}\) I certainly was (stem -kala), past emphatic tense
\(\text{yakkala}\) I certainly denied (stem -kkala), past emphatic tense
R of other consonants is nearly always associated with morpheme representation:

- yaseva I laughed
- yasseva I laughed at you (sg.)
- se father (Class 5; zero prefix)
- sse colour (Class 7; R represents class prefix)

In one other type of case, R cannot definitely be associated with morpheme representation, namely where it appears in stem augments:

- ntti trees (Class 4; R part of prefix)
- mintti trees (Class 4; prefix mi-)

Stem augments are further discussed under 2.3.

1.3 Reinforcement of vowels

Where conditions for R exist, a vowel appears with an onset consisting of the R form of the related semi-vowel:

- e/yye kuyyendela to go for
- kuyyendela to go for you
- i/yyi kuizila to come for
- kuyyizila to come for you
- o/wwo -oole two (adjectival stem)
- nwwoole a pair, a twosome (Class 3)

There are not many instances of vowel R, and there is usually some aspect of these examples which makes them not quite comparable with cases of consonant R. The stems -endela 'go (for)' and -izila 'come (for)' can be abstracted from the infinitives, illustrated above, but in some tenses of these verbs a plain y appears as a glide after vocalic tense sign: twayendela 'we went for', nwayizila 'you came for'. nwwoole is a Class 3 noun, but irregular in that the noun and adjectival prefixes of this class appear as mu- before all other vowel-commencing stems. So far there is no instance of R in the cases of a and u.

1.4 Nasal combinations

Spectrogram examples Nos. 11-18 illustrate the two sets of nasal combination involving C₁/V₁ of a nominal, adjectival or verbal stem. In both sets the nasal is homorganic to C/V. In both there is an additional feature, a third element in the combination.

In one set, N is followed by the reinforced form of the consonant:

- imbu stem -bu (No. 11)
- inkkuumbu stem -kuumbu (No. 13)
1. yabaka (I seized)

2. yabbaka (I did seize)
3. ikono (it is the stop chapter)

4. ikkono (it is the portion)
5. ise  (it is the father)

6. isse  (it is the colour)
7. yamona (I saw)

8. yammona (I did see)
9. wawa  (you heard)

10. wawwa  (you did hear)
11. imbbu  (it is the sea)

12. immbu  (it is the mosquito)
13. inkhuumbu (it is the time)

14. inkhuumbu (it is the name)
15. wansseva  (he laughed at him)

16. wantseva  (he laughed at me)
17. wanwwa  (you heard him)

18. wangwa  (you heard me)
19. yammona  (I saw him)

20. yammona  (I saw you)
Further examples not illustrated by spectrograms are:

- **yanddiika**: I fed him; verb stem -diika
- **nttadi**: overseer; stem -tadi, cf. -tala see to, look at
- **mvvovo**: expression; stem -vovo, cf. -vova speak
- **nzzodi**: lover; stem -zodi, cf. -zola love
- **mffidi**: leader; stem -fidi, cf. -fila lead
- **yanata**: I carried him; verb stem -nata
- **nllongi**: teacher; stem -longi, cf. -loonga teach
- **nyyadi**: one who spreads; stem -yadi, cf. -yala spread
- **nyyendi**: one who goes; stem -endi, cf. -enda go

The ‘third element’ here can be abstracted as R, and the set symbolized as NR-. NR- combinations are characterized by the distinctiveness of most realizations. The only cases of identical realization are NR + semi-vowel/vowel, where NRye has the same realization as NRe, and NRyi as NRI; nwwo represents NRwo as well as NRo.

The second set is rather more complex in structure. Not only does the third element vary greatly in phonetic character, but its position also is not fixed. Examples from the spectrograms are:

- **inkhuumbu**: stem -kuumbu (No. 14)
- **wantseva**: verb stem -seva (No. 16)
- **wangwa**: verb stem -wa (No. 18)

**Immbu** is another example (No. 12) but its stem is not identifiable. It may be -bu or -mu, as will shortly be seen. Further examples not illustrated by spectrograms are:

- **mmbaka**: act of seizing; cf. -baka seize
- **ndyda**: act of eating; cf. -dya eat
- **nthala**: act of looking; cf. -tala look
- **mphova**: act of speaking, statement; cf. -vova speak
- **mbvova**: he loved me; cf. -zola love
- **wandzola**: he led me; cf. -fila lead
- **wammbona**: he saw me; cf. -mona see
- **wanndata**: he carried me; cf. -nata carry
- **wanndoonga**: he taught me; cf. -loonga teach
- **njenda**: act of going; cf. -enda go
- **njiza**: act of coming; cf. -iza come
The third element here takes a variety of forms, e.g.:

- Aspiration after C
- Voiceless plosive, between N and C and homorganic to both
- Voiced plosive, between N and C/V and homorganic to both
- R of the nasal
- R of the nasal, and replacement of l by d

The combinations in *wammbona* and *wanndata* are more difficult to analyse. There are two possibilities: (i) N is reinforced and m, n replaced by b, d, or (ii) N + m, n is realized as RN and voiced plosive added. (i) is similar to the case of l: *nd*, where the nasal is reinforced and the continuant replaced by plosive. (ii) has no parallel. The only other case of an additional element occurring after C is that of k and t in *nkhuumbu* and *nthala*, but here the third element is aspiration. N + C does not appear as RC in any other case. For these reasons, and for the further one that m and n are voiced continuants like l, the first analysis is chosen. The third element is then R of the nasal which is first component, and replacement of m, n by a homorganic voiced plosive.

If we abstract the third element as A (additional element), the set can be symbolized by NA-. NA- combinations are characterized by the number of identical realizations:

- **NA + b, m:** mmb, cf. NR + b: mbb; NR + m: mnp
- **NA + d, n, l:** ndd, cf. NR + d: ndd; NR + n: np; NR + l: nll

It must be admitted that the distinctions between *njyi/nji, njye/nje, ngwu/ngu, ngwo/ngo* are minimal and further spectrogram analysis may show that they are unsupported by evidence from this source.

We now have two sets of nasal combination, NR- and NA-. A full list of NA-realizations is given in Table II, with notes on the A realization for each group.

In other dialects there are two sets of nasal combinations corresponding to NR- and NA- in Zoombo, but they are described as contrasting in a rather different way. The set corresponding to NR- is sometimes said to have a 'syllabic nasal', while NA- by implication has a nasal which is not syllabic.5 My own view is that

Table II

NA- combinations

(i) NA + voiced plosive: A realized as R of the nasal

\[ \begin{align*}
\text{NA} + \text{b} & : \text{mmb} \\
\text{d} & : \text{md}
\end{align*} \]

(ii) NA + voiceless plosive: A realized as aspiration after C

\[ \begin{align*}
\text{NA} + \text{p} & : \text{mph} \\
\text{t} & : \text{nfh} \\
\text{k} & : \text{nk} \\
\text{kk} & : \text{nnkh}
\end{align*} \]

(iii) NA + fricative, semi-vowel, vowel: A realized as plosive after nasal, homorganic to the following sound and harmonizing with it in voice

\[ \begin{align*}
\text{NA} + \text{v} & : \text{mbv/mph} \text{ (see note)} \\
\text{z} & : \text{ndz} \\
\text{f} & : \text{mpf} \\
\text{s} & : \text{nts} \\
\text{y} & : \text{niy} \\
\text{i} & : \text{ni} \\
\text{e} & : \text{nje} \\
\text{w} & : \text{ngw} \\
\text{a} & : \text{nga} \\
\text{o} & : \text{ngo} \\
\text{u} & : \text{ngu}
\end{align*} \]

(iv) NA + nasal, lateral: A realized as R of nasal and C replaced by voiced homorganic plosive

\[ \begin{align*}
\text{NA} + \text{m} & : \text{mmb} \\
\text{n} & : \text{nd} \\
\text{l} & : \text{nd}
\end{align*} \]

Note.—mbv has an alternative mph. In most words this is a free variant: mbvo/ mphova ‘act of speaking’, but in some words one is preferred to the other, usually mph, cf. -vova ‘speak’, mphovelo ‘way of speaking’. *mbvovelo was not accepted.

in Zoombo neither nasal is syllabic, but the arguments supporting this conclusion will be more readily followed when the place of R in the morphology has been described. The evidence is put forward in 3.0, where the ‘syllabic’ of R as well as of N in combinations is considered.

ils se trouvent au commencement d’un mot devant une autre consonne, forment, à eux seules, une syllabe particulière’. It is not quite clear which type of nasal combination is meant here. The language described by Seidel and Struyf is very close to Zoombo. In modern works, K. E. Laman, *Dictionnaire kikongo-français*, Brussels, 1936, terms NR- nasals ‘accentué’ (p. xlii) and ‘syllabique . . . plus longue et plus accentuée’ than NA- nasals (p. xliv); K. van den Eynde, *Eléments de grammaire yaka*, Lovanium, 1968, p. 8, writes of ‘une nasale isolée, qui est appelée alors nasale syllabique’ and cites n-kisi (the corresponding form in Zoombo is nkkisi with NR- prefix). J. Daeleman, *Morfologie van naamwoord en werkwoord in het Kongo (Ntandu)*, Leuven, 1966, p. 18, para. 1.6, writes of the nasal of the set equivalent to NR- as ‘syllabische’.
There is a further distinguishing feature of each type of combination. The nasal of NR- may sometimes be replaced by nasalization of the preceding vowel:

\textit{wansseva} he laughed at him (sometimes pronounced w\textit{ă}sseva)

The vowel nasalization varies in prominence, being greater when the nasal consonant is absent and less when the nasal can still be heard as a consonant. There is always, however, a greater nasality of the vowel before a NR- combination than before a NA- combination.

The nasal of a NA- combination tends to disappear in initial position:

\textit{nkuumbu} name (sometimes pronounced k\textit{h}uumbu)

This tendency is more marked in the case of combinations with voiceless plosives p, t, k and voiceless fricatives f, s. It has not been recorded at all for combinations in which the palatal and velar plosives j and g appears.

Finally, it should be emphasized that what has been said here does not apply to nasal combinations in C$_2+$ positions, e.g. mb in -laamba 'cook' and mb in llamba 'purse'. Such combinations require separate treatment, although it is true that there appear to be two sets in this position, to some extent parallel with the sets described above. NR- and NA- combinations only appear with C$_1$ and V$_1$.

2.0 THE ROLE OF REINFORCEMENT IN ZOOMBO MORPHOLOGY

The recognition of R is crucial in the description of Zoombo, in that R is very often the representation, or part representation, of a morpheme. Failure to observe the phenomenon caused the present writer for a long time to confuse forms in which RC contrasts with plain C and which are not otherwise distinguished. Two pairs of tenses were regarded as homophonous except in tone; no less than six noun classes were credited with zero prefixes, whereas only two of them have zero prefix in fact (Classes 1a and 5); one object infix was also taken as zero and some forms containing it were not distinguished from corresponding infix-less forms. Where NR- was involved, there was less possibility of confusion with NA-, owing to the large number of very different realizations of the two sets, but even here there was failure to distinguish between, e.g. mbb/mmb, with the result that some realizations of noun class prefixes were considered identical. The last failure concerned another five noun classes. This meant that nine of the noun classes were incorrectly described: almost fifty per cent, since there are twenty classes in Zoombo. The failure in the description of the tense system led to several forms being classified as 'irregular' which are nothing of the kind. Many problems of description remain, but once R is recognized, the structure of Zoombo presents a much more systematic appearance than formerly.

Most aspects of the role of R are illustrated by spectrogram examples.
CONSONANT REINFORCEMENT AND KONGO MORPHOLOGY

Nos. 7 and 8 show two tenses, one with R as part of the tense sign and the other without R:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yamona</td>
<td>I saw (past narrative tense, sign -a- -a)</td>
</tr>
<tr>
<td>yammona</td>
<td>I did see (past emphatic tense, sign -aR- -a)</td>
</tr>
<tr>
<td></td>
<td>verb stem -mona see</td>
</tr>
</tbody>
</table>

Similarly Nos. 9 and 10:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>wawa</td>
<td>you heard (past narrative, sign -a- -a)</td>
</tr>
<tr>
<td>wawwa</td>
<td>you did hear (past emphatic, sign -aR- -a)</td>
</tr>
<tr>
<td></td>
<td>verb stem -wa hear</td>
</tr>
</tbody>
</table>

R proved to be an allomorph of the second element of the tense sign of the past emphatic tense; the other allomorph is -ku- which appears before vowel stems and infixes:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yayenda</td>
<td>I went (past narrative)</td>
</tr>
<tr>
<td>yakuenda</td>
<td>I did go (past emphatic)</td>
</tr>
<tr>
<td>yammona</td>
<td>I did see (past emphatic, no object infix)</td>
</tr>
<tr>
<td>yakununona</td>
<td>I did see you (pl.) (past emphatic, object infix -nu- ‘you (pl.)’)</td>
</tr>
</tbody>
</table>

The allomorphs were previously given as zero/-ku-.

Nos. 7 and 20 show comparable forms, the first example with no object infix and the second with the object infix of the 2nd person singular:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yamona</td>
<td>I saw</td>
</tr>
<tr>
<td>yammona</td>
<td>I saw you (sg.) (infix -R-)</td>
</tr>
</tbody>
</table>

These have the same tone-pattern and were formerly considered identical. -R- is the sole representative of the 2nd person singular infix; there are no allomorphs.

The term ‘allomorph’ is used here in the following way: -R- and -ku- are allomorphs of (part of) the tense sign, past emphatic tense. -ku- is not an allomorph of -R-; and the various realizations of -R- (mm, ww, etc.) are not allomorphs of -R- either. This can be illustrated by comparing forms with (i) -R- as sole representative of morpheme (2nd sg. infix) and (ii) R/ku as allomorphs (past emphatic tense sign):

(i)  
<table>
<thead>
<tr>
<th>Stem</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yayyendela</td>
<td>I went for you</td>
</tr>
<tr>
<td>yawwa</td>
<td>I heard you</td>
</tr>
<tr>
<td>yakuendela</td>
<td>I did go for</td>
</tr>
<tr>
<td>yawwa</td>
<td>I did hear</td>
</tr>
</tbody>
</table>

-ku- clearly is not a realization of -R-, since Re is yye. The term allomorph is reserved for cases like that of R/ku. This has to be borne in mind when other writers’ analyses of similar material is compared with mine, e.g. in 4.0.

Nos. 3 and 4 show two nouns, the first belonging to a class which has zero
prefix and the second from a class where the prefix is R- when the stem begins with a consonant:

- ikono it is the stop/chapter (kono Class 5, zero prefix)
- ikkono it is the portion (kkono Class 8, prefix R-)

These have the same tone-pattern and provide another instance of forms regarded as homophonous before R was recognized. A similar pair are Nos. 5 and 6, illustrating the same two classes:

- ise it is the father (se Class 5, zero prefix)
- isse it is the colour (sse Class 7, prefix R-)

Both these classes have totally different prefix allomorphs before V stems:

- diambu word (Class 5, prefix di-)
- kiana garden (Class 7, prefix ki-)

R- is here an allomorph of the Class 7 prefix.

Nos. 11 and 12 show nouns of two classes, one with NR- prefix and the other with NA- prefix:

- imbbu it is the sea (Class 3, prefix NR-)
- immbu it is the mosquito (Class 9, prefix NA-)

Nouns of these two classes are often distinguishable by features not involving R, as in Nos. 13 and 14:

- inkkuumbu it is the time (Class 3, prefix NR-)
- inkhuumbu it is the name (Class 9, prefix NA-)

These are distinguishable even when R is not recognized, because of the aspiration in nkh, not present in nkk. Class 3 is like Classes 5 and 7 in that there is a V stem prefix allomorph of totally different shape:

- muenze virgin (Class 3, prefix mu-)

so that R here is part of a prefix allomorph, NR-. Class 9 has no such allomorphs, the prefix being NA- throughout:

- njenda act of going, cf. -enda go

Failure to distinguish between m, mm and mm led to confusion of two of the object infaxes and inability to distinguish either from the infix-less form in some

---

*This statement is not quite true. Loans from, e.g., Portuguese are sometimes found taking Class 9/10 agreements, but with no prefix, e.g. sikoola 'school' (Port. escola) and laamina 'razor-blade' (Port. lámina). I have one similar example which does not appear to be a loan: vumbamena 'blanket-/sweat-bath'.*
cases: Nos. 7, 19 and 20 illustrate three forms of this kind formerly taken to be homophones:

- **yamona**: I saw (no object infix)
- **yammona**: I saw you (2nd pers. sg. object infix -R-)
- **yammona**: I saw him (3rd pers. sg. object infix -NR-)

This particular confusion was only possible in the case of verbs with a nasal as C₁. In other cases the form without infix and that containing the 3rd sg. infix were distinct without recognition of R, as in Nos. 9 and 17:

- **wawa**: you heard (no object infix)
- **wanwwa**: you heard him (3rd pers. sg. object infix -NR-)

But for some time the difference between forms such as Nos. 17 and 18 was not understood:

- **wanwwa**: you heard him (3rd pers. sg. object infix -NR-)
- **wangwa**: you heard me (1st pers. sg. object infix -NA-)

Again, -NA- and -NR- confusion was limited to realizations with fairly similar phonetic features. -NR- is the only form of the 3rd person singular (Class 1) object infix and there are no allomorphs.

There are no spectrogram examples of R outside its morphological role. k and kk were confused for a very long time in lexical items such as -kala ‘be’ and -kkala ‘deny’, even when R had been recognized in pairs such as kono/kkono. This was because of the special peculiarity of kk in having no phonetically different R form. Further, the two verbs are from the same tone-class, so that, e.g. wakkala can be:

- Past emphatic of -kala be
- Past emphatic of -kkala deny

Non-recognition of R did not matter quite so much in the case of stem augments. Classification of a stem as ‘augmented’ depends as much on the shape of the preceding prefix as on the phonetic character of the augment. Augments are not illustrated by spectrogram examples and the whole question is given more detailed consideration in 2.3. It is doubtful whether there are any stem augments consisting of R only, though there is a possible case among adjectival stems (-kke, see 2.4). Most cases are of R in a nasal combination:

- **ntti**: trees (Class 4, prefix NR-)
- **mintti**: trees (Class 4, prefix mi-, augment -NR-)

The morphological functions of R will now be more fully described under the headings of the several grammatical categories involved.

### 2.1 Verbal tense signs

-R- is the allomorph of a tense sign, or part of a tense sign, in the future, present continuative, past emphatic and past emphatic continuative tense. In all these it is
in complementary distribution with -ku-, which appears before V stems and object infixes. -R- appears with C stems only, when there is no object infix.

2.11 *Future*

The structure of this tense is sp-R/ku- -a. sp = subject prefix of person or class.

*Examples*

- **-R- tense sign, C stems:**
  - ibbaka I shall seize; -baka seize
  - owwa he will hear; -wa hear
  - tusseva we shall laugh; -seva laugh
  - nummona you (pl.) will see; -mona see

- **-ku- tense sign, V stems:**
  - ikuenda I shall go; -enda go
  - okuiza he will come; -iza come

- **-ku- tense sign, before object infix:**
  - ikunubaka I shall seize you (pl.); infix -nu-
  - okutuwa he will hear us; infix -tu-
  - tukusseva we shall laugh at you (sg.); infix -R-
  - nukummona you will see him; infix -NR-
  - ikuhuyizila/ikuayizila I shall come for them; infix -ba-/-a-
  - okunjendela he will go for me; infix -NA-

tukusseva is an interesting example of a form containing two morphemes, one with -R- as its sole representative (the infix of the 2nd pers. sg.) and the other which has an -R- allomorph (the tense sign, which appears here as -ku-). It is a fact that R never appears twice in the same word as representative of a morpheme.

2.12 *Present continuous*

This tense has a structure similar to that of the future and therefore requires less illustration.

The structure is sp-R/ku- -aanga.

*Examples*

- **-R- tense sign, C stem:**
  - ibbakaanga I seize; -baka seize

- **-ku- tense sign, V stem:**
  - ikuendaanga I go; -enda go

- **-ku- tense sign, before object infix:**
  - ikunubakaanga I seize you (pl.); infix -nu-

2.13 *Past emphatic*

The structure of this tense is sp-aR/ku- -a. It may be contrasted with the past narrative tense, whose structure is sp-a- -a. There are further differences in the
subject prefix of the 3rd person sg. (Class 1) which is k- in the emphatic and w- in
the narrative. Contrasting examples from the narrative tense are shown in
brackets.

*Examples*

-aR- tense sign, C stems :
  - yabbaka I did seize (yabaka I seized)
  - kawwa he did hear (wawa he heard)
  - twasseva we did laugh (twaseva we laughed)
  - nwammona you did see (nwamona you saw)

-aku- tense sign, V stems :
  - yakuenda I did go (yayenda I went)
  - kakuiza he did come (wayiza he came)

-aku- tense sign, before infixes :
  - yakunubaka I did seize you (pl.) (yanubaka I seized you)
  - kakutuwa he did hear us (watuwa he heard us)
  - twakusseva we did hear you (sg.) (twasseva we heard you)
  - nwakummona you did see him (nwammona you saw him)
  - yakubayizila/yakuayizila I did come for them (yabayizila/yaayizila I came for
    them)
  - kakunjendela he did go for me (wanjendela he went for me)

2.14 Past emphatic continuative

The structure of the past emphatic continuative is sp-aR/ku- -aanga which may
be contrasted with that of the past narrative continuative, sp-a- -aanga. Examples
of the latter are given in brackets.

*Examples*

-aR- tense sign, C stems :
  - yabbakaanga I certainly used to seize (yabakaanga I used to seize)

-aku- tense sign, V stems :
  - yakuendaanga I certainly used to go (yayendaanga I used to go)

-aku- tense sign, before object infixes :
  - yakunubakaanga I certainly used to seize you (yanubakaanga I used to seize you)

2.2. Object infixes

The plural person and reflexive infixes are all of -CV- shape, one with two
free variants :

- tu- us
- mu- you (pl.)
- a-/ba- them (Class 2)

-ki- self
-yi- self
Mr. Makondekwa considered that -ba- was a loan from other dialects such as Ndibu, now gaining currency. -ki- and -yi- seem to be completely interchangeable and preference for one or the other largely a matter of idiolect (but see 2.31 under Class 15).

The singular person object infixes do not contain a vowel.

-NA- me
-R- you (sg.)
-NR- him/her

Other classes do not have object infixes, but a series of object substitutes of the general pattern 'concordial element -o'; Class 3 wo, Class 4 myo, Class 7 kyo, etc.

2.21 2nd person singular

This is -R- only. In the examples it is contrasted with absence of infix and infix of the 2nd person pl., given in brackets in that order.

**Examples**

<table>
<thead>
<tr>
<th>verb</th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>yabbaka</td>
<td>I seized you (yabaka I seized ; yanubaka I seized you)</td>
<td></td>
</tr>
<tr>
<td>wawwa</td>
<td>he heard you (wawa he heard ; wanuwa he heard you)</td>
<td></td>
</tr>
<tr>
<td>twasseva</td>
<td>we laughed at you (twaseva we laughed, twanuseva we laughed at you)</td>
<td></td>
</tr>
<tr>
<td>wammona</td>
<td>he saw you (wamona he saw ; wanumona he saw you)</td>
<td></td>
</tr>
<tr>
<td>yayyendela</td>
<td>I went for you (yayendela I went for ; yanyuyendela I went for you)</td>
<td></td>
</tr>
<tr>
<td>tuyyiziidi</td>
<td>we have come for you, pres. perfect (tuiziidi we have come for ; tunuiziidi we have come for you)</td>
<td></td>
</tr>
<tr>
<td>ikummona</td>
<td>I shall see you (immona I shall see ; ikunumona I shall see you)</td>
<td></td>
</tr>
</tbody>
</table>

In the last three examples, mm in ikummona results from -R- as 2nd pers. sg. infix and mm in immona results from -R- as a tense sign (see 2.11).

2.22 3rd person singular (Class 1)

The object infix of the 3rd person singular, Class 1, is -NR- and has no allo- morphs. It may be contrasted with the infix of the 1st person singular, which is -NA-, examples of the latter being shown in brackets.

**Examples**

<table>
<thead>
<tr>
<th>verb</th>
<th>singular</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>nwambbaka</td>
<td>you seized him (nwambbaka you seized me)</td>
<td></td>
</tr>
<tr>
<td>waww</td>
<td>he heard him (wawwa he heard me)</td>
<td></td>
</tr>
<tr>
<td>wansseva</td>
<td>he laughed at him (wantseva he laughed at me)</td>
<td></td>
</tr>
<tr>
<td>wammona</td>
<td>he saw me (wammona he saw me)</td>
<td></td>
</tr>
<tr>
<td>wanyyendela</td>
<td>he went for him (wanyyendela he went for me)</td>
<td></td>
</tr>
<tr>
<td>nunyyiziidi</td>
<td>you have come for him (nunyyiziidi you have come for me)</td>
<td></td>
</tr>
<tr>
<td>okunttala</td>
<td>he will look at him (okunttala he will look at me)</td>
<td></td>
</tr>
<tr>
<td>kakunwwa</td>
<td>he did hear him (kakunwwa he did hear me)</td>
<td></td>
</tr>
</tbody>
</table>
2.3 Noun class prefixes

Before considering the particular noun classes where R appears in the prefix ranges, it is necessary to give a brief outline of the noun class prefix system in general.

All noun prefixes in Zoombo, including zero prefixes, appear in two forms: as double prefixes (with initial vowel) and as single prefixes (without IV). The IV may appear as e- or o-:

\[ \text{emuana/omuana} \quad \text{child (double prefix emu-/omu-)} \]

With some classes one of these IV’s is more often found than the other. There are sometimes implications in the choice of one rather than the other, too. These questions are irrelevant here, so to avoid having to quote an IV, nouns are given in their single prefix form, e.g. muana ‘child’. This gloss is grammatically incorrect out of a context, as use of the single prefix is confined to unstable nouns as object of a verb in a negative clause or when indefinite.

\[ \text{ke twamona muana ko} \quad \text{we didn’t see a/the child} \]
\[ \text{twamona muana} \quad \text{we saw a child} \]

and nouns with an element prefixed:

\[ \text{meeso mamuana} \quad \text{eyes of a child} \]
\[ \text{imuana} \quad \text{it is the child} \]

Use of the single prefix form outside these contexts implies stabilization:

\[ \text{muana twamona} \quad \text{it is a child (that) we saw} \]
\[ \text{muana wabwa} \quad \text{it is a child (who) fell down} \]
\[ \text{muana} \quad \text{it/he/she is a child} \]

Where the noun is unstable and definite, the double prefix is normally used:

\[ \text{omuana wabwa} \quad \text{the child fell down} \]
\[ \text{twamon’ omuana} \quad \text{we saw the child} \]

Single prefix forms often have different tone-patterns from corresponding double prefix forms. It is convenient to quote the single rather than the double prefix form, but not to give the correct gloss ‘it is (a) . . .’ every time, so the single prefix form is quoted with the grammatically incorrect gloss.

Basically there are eighteen noun classes, numbered 1–19. Class 12 is omitted and in addition there are Classes 1a and 2a controlling agreements of Classes 1 and 2 but having different noun prefixes.

There is no system of concordial agreement corresponding to Class 12 in other Bantu languages, of which the class prefix is \text{ka} or similar. There are however suggestive forms like \text{kala} ‘already, long since’, cf. \text{vala} ‘far away’.
There is a possible range of four prefixes for any noun class:

(a) C stem prefix: before stems beginning with a consonant
(b) V stem prefix: before stems beginning with a vowel
(c) Extra prefix
(d) Augment prefix

(c) and (d) will be explained shortly.

The C and V stem prefixes are sometimes dramatically different:

Class 5: C stem prefix zero vata village
      V stem prefix di- diambu word (stem -ambu)

The V stem prefix is often of CV- or V- shape, and the vowel is subject to various distortions:

Assimilation: vuuma place, Class 16; prefix va-, stem -uma, va-u to vuu

Coalescence: meeso eyes, Class 6; prefix ma-, stem -isu (cf. sg. diisu Class 5); ma-i to mee

Elision: lose face, Class 11; prefix lu-, stem -ose; lu-o to lo

Contraction:
(a) mwalakazi nursing mother, Class 3; prefix mu-, stem -alakazi; mu- + four-syllable V stem to mw-
(b) mambu-maya four words, cf. maambu words; vowel contraction in first component of a compound

These distortions are not included in the statement of the V stem prefix shape, though some examples may contain them.8

When a prefix is attached to a complete noun in another class, i.e. when the result can control agreement in both classes, the first prefix is said to be an extra prefix:

kuzaandu dyannene at a market of greatness (a big market)
ku- is a Class 17 prefix; zaandu is a Class 5 noun (zero prefix); dya- is the possessive prefix of Class 5.

kuzaandu kwamoneka vo at the market (it) appeared that . . .

Here the subject prefix of the verb, kw-, is in Class 17.

An augment prefix is more difficult to define. There exist many sets of related nouns such as the following:

lloka to bewitch (stem -lloka), Class 15
mndoki witch, Class 9
kinndoki witchcraft, Class 7

ki- in kinndoki looks like an extra prefix, since mndoki exists as a separate word, but kinndoki only controls prefixes of Class 7, never of Class 9. The element identical

8 A different method of citation is used for adjectival prefixes, see section 2.4.
in shape with the Class 9 prefix is here called by Professor Guthrie's term, an 'augment', and prefixes occurring before such elements are called augment prefixes.

There are very many other nouns where the prefix is followed by an element resembling a prefix, but for which no other words exist supporting a relationship of the kinndoki/ndndoki kind. Two cases in point are:

kimbvumina milk madioko cassava

mbv looks like Class 9 prefix NA- + v, but *mbvumina does not exist; di looks like Class 5 V stem prefix di-, but although dioko 'piece of cassava' does exist, di- cannot be considered a prefix in either class. The pairing is di-/ma-, not di-/madi-. It so happens that the prefix before stems of this kind which look as if they have an augment, is always identical in shape with the augment prefix, and they are therefore treated here as augmented stems. This decision is open to objection, but certainly simplifies the task of description.

Two classes present further problems.

Classes 4 and 10, both plural classes, have an additional prefix which is attached to what is apparently a noun in the same class as the prefix. It so happens that the corresponding singular class in each case has C stem prefix identical with that of the plural class.

ntti tree; Class 3, prefix NR-, stem -ti
ntti trees; Class 4, prefix NR-, stem -ti
mintti trees; Class 4, prefix mi-, stem -ntti

ndzo house; Class 9, prefix NA-, stem -zo
ndzo houses; Class 10, prefix NA-, stem -zo
zindzo houses; Class 10, prefix zi-, stem -ndzo

mintti and zindzo are found only when there is no item immediately following which contains a concord:

ntti myayiingi many trees (mya- Class 4 possessive prefix)
twazeenga mintti we cut down some trees (no item with concord follows)

In a later part of the context there may be an item in concordial agreement:

Twazeenga mintti. Nwanata myo e? We cut down some trees. Did you (myo object substitute of Class 4) carry them?

The question is: are mi- and zi- extra or augment prefixes? mi- appears as augment prefix of Class 4 in, e.g., minkhiti 'traders', cf. nkhitı 'tradesman', Class 9; but Class 10 has no augment prefix otherwise. The pattern of agreement tells us nothing: an extra prefix is defined as one which does not destroy the pattern of agreement of the class of the noun to which it is attached, and in mintti and zindzo it is impossible to see whether the first prefix is controlling the agreement, or the second prefix-like element. If the latter is a prefix of the plural class, it will control the same agreements. If it is an augment, it will not control
agreements; but the end result in this case is the same. To avoid setting up yet another type of prefix, these additional prefixes of Classes 4 and 10 are counted as augment prefixes. As will be seen, no class has extra and augment prefixes, and in a different type of description they might be subsumed into one category. That a third and perhaps fourth category for extra and augment prefixes is needed is shown by Classes 5 and 2:

Class 5

- **C stem prefix** zero vata village, pl. mavata (Class 6)
- **V stem prefix** di- diambu word, pl. maambu (Class 6)
- **Augment prefix** di- dinkhondo plantain, pl. mankhondo (Class 6)

*dinkhondo* cannot be included under C stems, although the prefix is followed by C, since *di-* is not found before the majority of stems with single C at commencement of stem. Here the augment prefix is the same as for the V stem.

Class 2

- **C stem prefix** a- atadi overseers, sg. ntatti (Class 1)
- **V stem prefix** wa- waana children, sg. muana (Class 1)
- **Extra prefix** a- ammbuta elders, cf. mmbuta elders (Class 10, prefix NA-)

Here the extra prefix is the same as for C stems, but cannot be called a C stem prefix, because *ammbuta* still controls Class 10 agreements:

*ammbuta zeeto bavovaanga* our ancestors used to say

*zeeto* ‘our’ has Class 10 agreement, *ba-* is the subject prefix of Class 2.

The full range of prefixes for classes not including R in any of their prefixes is shown in Table III.

### Table III

<table>
<thead>
<tr>
<th>NOUN CLASS PREFIXES NOT CONTAINING R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class no.</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>1a</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>2a</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
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<td>9</td>
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<td>13</td>
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<td>16</td>
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<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
</tbody>
</table>
2.31 Classes 7, 8, 14, 15
These classes all have R- as the C stem prefix, with V stem and augment prefixes of (C)V- shape.

**Class 7**
- C stem prefix: R-
- V stem prefix: ki-
- Augment prefix: ki-

Examples may be shown contrasting with Class 5 nouns which have zero prefix, or verb stems in the case of derivatives.

**Examples**

C stem prefix R-:
- ddiya: delay
- ffu: custom
- kkwa: yam (kwa a few, Class 5)
- kkono: portion (kono stop/chapter)
- llumbu: day
- mmoko: conversation (-mokena converse)
- mbooona: example
- sse: colour (se father)
- tseevo: breath
- vvaanggu: creature (vaangu action; -vaanga make, do)
- wwiisa: influence
- yyitu: relative, kinsman
- zziinggu: life (-ziinga live)

V stem prefix ki-:
- kiiana: garden
- kielo: door
- kiozi: cold
- kiufta: sweat
- kyalakazi: nursing-place/period

Augment prefix ki-:
- kinndoki: witchcraft (nndoki witch, Class 9; -loka bewitch)
- kinndende: child, infant
- kimuanda: spirituality (muanda spirit, Class 3)
- kinkhuikiizi: belief (-kuliika believe)
- kingudi: motherly position/behaviour (ngudi mother, Class 9)
- kimbvmina: milk
- kinyya: challenge

The last example, kinyya, shows R in a -NR- augment.

**Class 8**
- C stem prefix: R-
- V stem prefix: yi-
- Augment prefix: yi-
Class 8 is the plural class for nouns in Class 7, though in many cases there is no corresponding plural, e.g. ttevo 'breath' is Class 7 only. Some Class 6 plurals of Class 5 items are shown for comparison.

C stem prefix R-:

- ffu customs
- kkono portions (makono chapters)
- sse colours (mase fathers)
- vvaangu creatures (mavaangu actions)
- yyitu relatives, kinsmen

V stem prefix yi-:

- yiana gardens
- yielo doors

Augment prefix yi-:

- yinndende children/infants
- yinyya challenges

Class 14

C stem prefix R-:

- ttadi mineral (tadi stone, Class 5)
- vviimpi health (pl. maviimpi, Class 6)
- nnene greatness
- kkaka otherness (e.g. muana wakkaka child of otherness, i.e. another child)
- lleemvo obedience
- zzayi knowledge (-zaaya know)

V stem prefix w-:

- woonga fear
- walakazi tender care, as of a nursing mother for her child

Augment prefix u-:

- unkhabu courage
- unlleeka gentleness
- ungudi motherly care (ngudi mother, Class 9)
- ummbakuuzi understanding (-bakula understand)
- ulolo number (large)

unlleeka shows R in an augment -NR-. 

Examples
It may be asked what is the justification for including uolo among augmented stem forms. Augments are prefix-like elements, and there are zero prefixes, so the possibility of zero augments cannot be excluded. There is no proof for this, but clearly the overwhelming number of C stems with R- prefix justifies the setting up of R- and not u- as the C stem prefix; further, ulolo has a prefix identical with the augment prefix.

Class 15

<table>
<thead>
<tr>
<th>C stem prefix</th>
<th>V stem prefix</th>
<th>Augment prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-</td>
<td>ku-</td>
<td>ku-</td>
</tr>
</tbody>
</table>

This class contains only verbal infinitives. The term 'augment prefix' has a special interpretation here: the augment prefix occurs only before object infixes. It so happens that all save one of the object infixes has shapes identical with one or more class prefixes:

-NA- 1st pers. sg., cf. C stem prefix Classes 9 and 10
-R- 2nd pers. sg., cf. C stem prefix Classes 7, 8, 14, 15
-NR- 3rd pers. sg. (Class 1), cf. C stem prefix Classes 1, 3, 4 (see 2.32)
-tu- 1st pers. pl., cf. C stem prefix Class 11
-a- 3rd pers. pl. (Class 2), cf. C stem prefix Class 2

The 3rd person pl. infix has an alternative, -ha-.

-ki- reflexive, cf. V stem prefix Class 7
-yi- reflexive, cf. V stem prefix Class 8

The exception is the 2nd person pl. infix -nu-.

Examples may be contrasted with the imperative of the verb, where this has the structure R-a, or with Class 5 nouns having zero prefix.

Examples

C stem prefix R-:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bbaka</td>
<td>to seize (baka seize)</td>
</tr>
<tr>
<td>ddy</td>
<td>to eat (dyā eat)</td>
</tr>
<tr>
<td>fluunda</td>
<td>to complain (fuunda a thousand)</td>
</tr>
<tr>
<td>kkala</td>
<td>to be (stem -kala)</td>
</tr>
<tr>
<td>kkala</td>
<td>to deny (stem -kkala)</td>
</tr>
<tr>
<td>lloonngaa</td>
<td>to learn (loonngaa dish)</td>
</tr>
</tbody>
</table>

Three other nouns are sometimes assigned to this class:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kutu</td>
<td>ear, pl. matu (Class 6)</td>
</tr>
<tr>
<td>kuulu</td>
<td>foot, leg, pl. maalu (Class 6)</td>
</tr>
<tr>
<td>kooko</td>
<td>hand, arm, pl. mooko (Class 6)</td>
</tr>
</tbody>
</table>

kutu does not fit into the prefix range set up for Class 15, since it has C stem but prefix ku-. I see no reason to postulate a zero augment here, since Class 17 lies ready to hand, with C stem prefix ku-, e.g. kula 'far away'. The three form a semantic group which is non-verbal and for these reasons I have assigned them to Class 17.
mmona to see (mona a view)
nnwa to drink (nwa mouth, Class 3; see 2.32)
ssoneka to write (sonekeno writing-place)
ttala to look at (tala! look!)
vvata to cultivate (vata village)
wwuta to give birth (wuta birth-event)
zzola to love (zola! love!)

V stem prefix ku-

kuenda to go
kuiza to come

Augment (infix) prefix ku-

kunmbbaka to seize me; infix -NA-
kubbaka to seize you (sg.); infix -R-
kumbbaka to seize him; infix -NR-
kutubaka to seize us; infix -tu-
kunubaka to seize you (pl.); infix -nu-
kuaabaka/kubahaka to seize them; infix -a/-ba-
kuyibaka to seize oneself; infix -yi-

There is one peculiarity. With infix -ki- as reflexive, there is frequently but not invariably zero prefix:

(ku)kibaka to seize oneself

2.32 Classes 1, 3, 4

These three classes have NR- as the C stem prefix.

There is a problem in the identification of some nouns in Classes 1 and 3. These two classes have almost identical prefixes and most of their agreements are identical also:

onkkeento wabwa the woman fell down (Class 1)
ontti wabwa the tree fell down (Class 3)

Class 3 differs from Class 1 in having an object substitute wo instead of an infix -NR-, but this is often not much help in deciding to which class a noun belongs. Firstly, there are many ‘ambivalent’ nouns of this kind which have plurals in Class 2 and in Class 4. The usual singular/plural pairing is 1/2 and 3/4.

nttadi overseer (Class 1? Class 3?)
atadi overseers (Class 2)
(mi)nttadi overseers (Class 4)

Secondly, Zoombo operates a ‘logical’ agreement, whereby nouns in any class,
if they denote human beings, can control Class 1/2 concords as well as those of their own class:

se dyamuana wavova  the father of the child spoke (se Class 5; dya- Class 5 possessive prefix; w- Class 1 sp)

It may be objected that this is no different from the double control exerted by a noun with extra prefix, but if this argument is followed, zero extra prefixes will have to be established for almost every class. This particular pattern is semantically limited, only nouns denoting persons (and sometimes animals) being concerned. One might surmount the difficulty by regarding sentences of this kind as having a break or hiatus, paralleled in English by, e.g., ‘the father of the child, he spoke’.

The solution adopted here is to regard nttadi/atadi as instances of Classes 1/2 and nttadi/(mi)nttadi are assigned to Classes 3/4; nttadi (Class 1) and nttadi (Class 3) are homophonous.

*Class 1*

<table>
<thead>
<tr>
<th>C stem prefix NR-</th>
<th>V stem prefix mu-</th>
</tr>
</thead>
<tbody>
<tr>
<td>No augment or extra prefix recorded</td>
<td></td>
</tr>
</tbody>
</table>

Examples are compared with corresponding plurals in Class 2 and sometimes with related verbs.

*Examples*

**C stem prefix NR-:**
- mbbuunzi: younger sister (abuunzi)
- mfidi: leader (afidi; -fila lead)
- nkkeento: woman (akeento; also makeento Class 6; cf. nkheento (Class 9) female animal)
- nkkuundi: friend (akuundi)
- nloongoi: teacher (aloongi; -loonga teach)
- nñati: porter (anati; -nata carry)
- nttadi: overseer (atadi; -tala look at, see to)
- nwwuti: woman giving birth (awuti; -wuta give birth)
- nzzodi: lover (azodi; -zola love)

**V stem prefix mu-:**
- muana: child (waana)
- mwalakazi: nursing mother (walakazi)

---

10 See Malcolm Guthrie, *Bantu sentence structure*, School of Oriental and African Studies, University of London, 1961, p. 20, Kongo sentence 15. The example given shows a sentence rendered as ‘the birds we caught yesterday we have sold’, ‘the . . . yesterday’ being the section in hiatus relationship, since it ‘plays no part in the structure of the last . . . items, which by themselves form a complete sentence. It is simplest therefore to regard such a section as being supported by the sentence it precedes’. Although Guthrie’s example has an ‘object’ in hiatus relationship, and mine has a ‘subject’, the two are I think comparable.
Class 3  C stem prefix NR-
V stem prefix mu-
Augment prefix mu-

Examples may be compared with Class 9 nouns having same C₁ and with related verbs. Class 9 has prefix NA-.

Examples

C stem prefix NR-:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>mbbu</td>
<td>sea (mbbu mosquito)</td>
</tr>
<tr>
<td>mffunu</td>
<td>necessity (mpfunu chief)</td>
</tr>
<tr>
<td>nkkuumbu</td>
<td>time, occasion (nkhuumbu name)</td>
</tr>
<tr>
<td>nkkalu</td>
<td>denial (-kkala deny; nkhalu calabash)</td>
</tr>
<tr>
<td>nluluunzu</td>
<td>pain</td>
</tr>
<tr>
<td>ngwa</td>
<td>mouth (nudwa act of drinking, -nwa drink, nnwa to drink, Class 15)</td>
</tr>
<tr>
<td>mppata</td>
<td>unit of currency (mphatu field)</td>
</tr>
<tr>
<td>nsse</td>
<td>race, type (ntse rawness)</td>
</tr>
<tr>
<td>nttadi</td>
<td>overseer (nthala act of looking, -tala look at)</td>
</tr>
<tr>
<td>mvvovo</td>
<td>expression (mvvova act of speaking, mphovelo way of speaking, -vova speak)</td>
</tr>
<tr>
<td>nzzobo</td>
<td>paste (ndzoba act of making into paste, zoba make into paste)</td>
</tr>
<tr>
<td>nyya</td>
<td>a foursome (-ya adjective stem)</td>
</tr>
</tbody>
</table>

V stem prefix mu-:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>muni</td>
<td>sunlight</td>
</tr>
<tr>
<td>muenze</td>
<td>virgin</td>
</tr>
<tr>
<td>muanda</td>
<td>spirit</td>
</tr>
<tr>
<td>moolo</td>
<td>lazy person (stem -olo)</td>
</tr>
</tbody>
</table>

Augment prefix mu-:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>munndele</td>
<td>European</td>
</tr>
<tr>
<td>munkhoondwa</td>
<td>one who lacks (-koonda lack)</td>
</tr>
<tr>
<td>munkhuikizi</td>
<td>believer (-kuikila believe)</td>
</tr>
<tr>
<td>umphodi</td>
<td>one who draws down (on himself) (-vola draw down)</td>
</tr>
<tr>
<td>muntse</td>
<td>sweet-cane</td>
</tr>
</tbody>
</table>

One noun apparently has the C stem prefix before a V stem: nwwoole 'a pair', cf. -oole 'two', adjective stem.

Class 4  C stem prefix NR-
V stem prefix mi-
Augment prefix mi-

Class 4 nouns are often plurals of Class 3 nouns, with which they are compared here.
C stem prefix NR-:

nkkuumba times (nkkuumbu)
nsse races, types (nsse)
nttadi overseers (nttadi)
mvvovo expressions (mvvovo)

V stem prefix mi-:

miina natural laws
mienze virgins (muenze)
mianda spirits (muanda)
miolo lazy people (moolo)

Augment prefix mi-:

minkkuumbu times (nkkuumbu Classes 3 and 4)
minsse races, types (nsse Classes 3 and 4)
minttadi overseers (nttadi Classes 3 and 4)
munndele Europeans (munndele)
minkhoondwa people who lack (munkhoondwa)
mintse sweet-canes (muntse)

2.4 Adjective (long series) class prefixes

Adjectives (long series stems) form a very small group and the class prefixes are abstracted from material much less ample than that for nouns. There are also restrictions of co-occurrence: -kwa ‘few’, ‘how many?’ is confined to agreement with countables and never appears with a singular class or a noun denoting an uncountable quantity.

-kke ‘too small’ only occurs stabilized, e.g. kiana kikke ‘the garden is too small’.

The classes display prefix ranges similar to those for nouns. There are C stem, V stem and augment prefixes. Particularly common are augment prefixes before elements of the same shape as C or V stem prefix, in some classes but not in others, for the numerals ‘one’ to ‘five’; -mosi ‘one, same’ and -kke ‘too small’ present special problems (see below).

Examples from Classes 2, 4 and 10 serve to illustrate the prefix ranges; V stem prefixes are never found uncontracted so are shown in contracted form:

Class 2

C stem prefix a-:
afatu three (stem -tatu)

V stem prefix w-:
woole two (stem -oole)
waaka other (stem -aaka)

Augment prefix a-:
awoole two (cf. woole)
Class 4

<table>
<thead>
<tr>
<th>C stem prefix NR-</th>
<th>nttatu</th>
<th>three</th>
</tr>
</thead>
<tbody>
<tr>
<td>V stem prefix my-</td>
<td>myoole</td>
<td>two</td>
</tr>
<tr>
<td></td>
<td>myaaka</td>
<td>other</td>
</tr>
<tr>
<td>Augment prefix mi-</td>
<td>mimyoole</td>
<td>two (cf. myoole)</td>
</tr>
<tr>
<td></td>
<td>minttatu</td>
<td>three (cf. nttatu)</td>
</tr>
</tbody>
</table>

Class 10

<table>
<thead>
<tr>
<th>C stem prefix zero</th>
<th>tatu</th>
<th>three</th>
</tr>
</thead>
<tbody>
<tr>
<td>V stem prefix z-</td>
<td>zoole</td>
<td>two</td>
</tr>
<tr>
<td></td>
<td>zaaka</td>
<td>other</td>
</tr>
<tr>
<td>Augment prefix zi-</td>
<td>zizoole</td>
<td>two (cf. zoole)</td>
</tr>
<tr>
<td></td>
<td>zitatu</td>
<td>three (cf. tatu)</td>
</tr>
</tbody>
</table>

Augment prefix forms occur when there is no controlling noun immediately preceding and are termed 'pronominal forms' in some grammars. They may be compared with the use of the Class 10 noun augment prefix (see 2.3).

A problem arises when the forms for -mosi 'one, same' and -kke 'too small' are examined.

Class 4

- mmosi, C stem prefix NR-
- mimosi, augment prefix mi-
- mikke, augment prefix mi-

but there is no augment of -NR- shape as one might expect, to parallel minttatu, for either of the forms with augment prefix. The absence of a C stem prefix form for -kke suggests that this stem should be regarded as an augmented stem (? zero augment, ?-R- augment); the presence of a typical C stem prefix for -mosi suggests that this a C stem, and has zero augment in mimosi.

Class 2

- amosi akke

This class has a- as C stem prefix and augment prefix. There is nothing to parallel either woole/woole or mmosi/mimosi. We may have one or two pairs of homophones here, and this does not help to identify -mosi and -kke as either C stems or augmented stems.

Class 1

- mmosi, C stem prefix NR-
- ummosi, augment prefix u-

-mosi and -kke are both treated as C stems; ummosi has an augment of the shape of the C stem prefix, NR-.

Class 10

- zimosi, augment prefix zi-
- zikke, augment prefix zi-
Here there is no alternative but to regard both stems as augmented, with zero augment. The C stem prefix is also zero, so this is not impossible.

This problem has been aired at some length to show the dubious status of -mosi and -kke. They are sometimes treated as C stems, sometimes as augmented stems. This fact becomes of importance when we come to consider classes where R- has appeared as a noun class prefix allomorph. In view of the general resemblance of noun and adjective class prefixes, we might expect to find a similar situation; on the other hand, the position for Class 10 warns us that these expectations may not necessarily be fulfilled. If evidence from -mosi and -kke is all we have to go upon, then nothing is proved. In fact these two stems are the only possibilities for C stem agreement with some classes; if we expect R- and do not find it, this does not imply that the C stem prefix is other than R-, the class may simply be using an augment prefix before -mosi and -kke, as does Class 10. The condition for R- may not exist, and the C stem prefix has to go as unrecorded.

This is the case with Classes 7, 14 and 15, and here I have chosen (in a rather cowardly way) to side-step the issue and term the -mosi/-kke prefix ‘other prefix’.

Class 7

V stem prefix ky- : kyaaka other
Other prefix ki- : kimosi one, same
kkke too small

Class 14

V stem prefix w- : waaka other
Other prefix u- : umosi one, same
ukke too small

Class 15

V stem prefix kw- : kwaaka other
Other prefix ku : kumosi one, same
(-kke form unrecorded)

However, R- does occur as the prefix allomorph of one class, and in NR-prefixes for other classes.

2.41 Class 8

C stem prefix R- : ttatu three (stem -tatu)
yya four (stem -ya)
kkwa ? how many ? (stem -kwa)

V stem prefix y- : yoole two
yaaka other

Augment prefix yi : yiyoole two
yikkwa ? how many ?
yimosi same
yikke too small
-kke and -mosi are treated as augmented stems. There is an interesting variant of
the augmented form for ‘two’, yiyyole. This looks like a double augment,
\(-R- + -y-\).

2.42 Classes 1, 3, 4

All these classes have NR- as C stem prefix.

**Class 1**

- **C stem prefix NR-**: mmosi one, same
  - nkke too small
- **V stem prefix w-**: waaka other
- **Augment prefix u-**: ummosi one (cf. mmosi)

-mosi and -kke have C stem prefix here; or rather, the C stem prefix is set up on
the basis of these two forms.

**Class 3**

- **C stem prefix NR-**: mmosi one, same
- **V stem prefix w-**: waaka other
- **Augment prefix u-**: ummosi one, same (cf. mmosi)
  - ukke too small

-mosi in this class is a C stem and -kke is an augmented stem.

**Class 4**

- **C stem prefix NR-**: mmosi one, same
  - nttatu three
  - nyya four
- **V stem prefix my-**: myoole two
  - myaaka other
- **Augment prefix mi-**: mimyoole two (cf. myoole)
  - mimosi same
  - mikke too small

-mosi is a C stem, but in mimosi has to be taken as an augmented stem; -kke is an
augmented stem.

Thus R enters into the adjective prefix system in much the same way as into
the noun prefix system, but its occurrences are more limited.

3.0 SYLLABICITY OF REINFORCED CONSONANTS AND NASALS
IN COMBINATIONS

Judgment as to whether any element is syllabic or not depends upon the
definition chosen for ‘syllable’. In Zoombo the only workable definition is ‘tone-
bearing element’.

It is necessary to distinguish between *tone* and *pitch* in this context. A high
pitch is the exponent of a high tone, analogous to the way in which a specific nasal consonant, say m, is an exponent of N. In Zoombo a high pitch can be spread over a vowel and the following consonant—but this does not necessarily imply that the ‘two’ high pitches are the exponents of two tones.

Examples from the past narrative tense will illustrate this. There are two tone-classes of verbs in Zoombo, here simply numbered I and II.

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>áwa they heard</td>
<td>(no corresponding example)</td>
</tr>
<tr>
<td>ábaka they seized</td>
<td>anáta they carried</td>
</tr>
<tr>
<td>ásadisa they helped</td>
<td>amókena they conversed</td>
</tr>
<tr>
<td>ázayakana they became known</td>
<td>avilakana they forgot</td>
</tr>
</tbody>
</table>

In Set I the high pitch of á- is spread over the following w, b, s, z and in Set II the low pitch of a- is spread over the following n, m, v. Similarly the high pitch of -i- in avilakana is spread over the following l, though a corresponding spread is almost impossible to detect when the following consonant is voiceless, as in anáta, amókena. A vowel following a consonant with a high ‘spread’ of this kind may often have a slight high-fall at the beginning. In each set, however, there is only one high tone. It can be described for Set I as ‘high tone on the pre-stem syllable’ and for Set II as ‘high tone on the first stem syllable’. If this is not accepted, the following arguments will not be convincing.

Conveniently, the elements -R-, -NA- and -NR- all occur in a comparable context, that of verb with object infix. Using verbs from Set I above, and the same past narrative tense, we can compare forms having infix containing a vowel with those having vowel-less infix.

**Infix -**(C)F-**   Infix without vowel**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>atúbaka they seized us</td>
<td>ábbaka they seized you (sg.)</td>
</tr>
<tr>
<td>anúbaka they seized you (pl.)</td>
<td>ámmbaka they seized me</td>
</tr>
<tr>
<td>aábaka they seized them</td>
<td>ámmbaka they seized him</td>
</tr>
<tr>
<td>abábaka</td>
<td>abábaka</td>
</tr>
</tbody>
</table>

These can be described as before for Set I without infix: high tone on the pre-stem syllable. The infixes without vowels cannot bear this high tone, though they all have high pitch spread over them from the preceding a-. If they were syllabic according to the definition being used, they would have high pitch—but a- would not, as when a- is followed by an infix containing a vowel.

If the infixed elements without vowels are taken as syllabic, the -b- of -baka in the left-hand column must be taken as syllabic too; it also has high pitch. I find also great difficulty in talking of a ‘syllabic nasal’ for a case like ábbaka where there is no nasal consonant, only nasalization of the vowel!

The conclusion seems inescapable that in Zoombo at least there are no syllabic nasals, nor are reinforced consonants syllabic.
4.0 REINFORCEMENT IN OTHER DIALECTS

In Mayombe, -R- is an allomorph of the class prefix of Classes 7, 8, 14, and 15, of the 2nd pers. sg. infix, and of the -ku- infix of tenses, though it is not recorded after nasals except where the context is incomparable. Bittremieux uses the Kongo term ki’katila ki ngolo ‘strong stretching’ for -R-, the apostrophe indicating reinforcement. In Ngombe data the -NR- combination is attested.

llekwa thing; Class 7
fhimpa to examine; Class 15, stem-fhimpa

But the Ngombe noun class prefix system differs in many respects from Zoombo and a full description cannot be given here.

Some information given in published work suggests that there may be parallels to R elsewhere in Koongo, if not of exactly the same nature. For instance, K. van den Eynde 11 quotes instances of a ‘syllabic consonant or semi-vowel’ as a prefix:

’y-ya four
’v-vwa nine

This is reminiscent of the Class 8 adjective prefix R- illustrated in 2.41 (yya, stem -ya). (‘Nine’ is not an adjective stem in Zoombo.)

However for Laadi, Jacquot 12 states that reinforcement is definitely not found. The 2nd pers. sg. infix, for instance, is analysed by Jacquot as -u-, which always appears in combination with ‘Class 20’ zero/ku- (= my tense sign, which in Zoombo is -R-/ku-). Apparently zero + -u- is realized as zero, while -ku- + -u- is realized as -ku-. In Zoombo cases comparable to those which he cites, -ku- is an allomorph of the tense sign, but the infix is represented as -R-:

Laadi
nikukuba (ni-ku-u-kuba) I hit you

Zoombo
ikukkuba (i-ku-R-kuba) I shall hit you

R is only proved for three dialects, but suggested for another and definitely absent from yet another. It is hoped, however, that the appearance of this article may stimulate workers in other parts of the Koongo field to bring forward any evidence they may have of parallels to reinforcement in their material.

12 A. Jacquot, personal communication; see also ‘Forme du pronom objet de 2ème personne du singulier en “Kikongo”’, JAL, VI, 1, 1968, 58–60.
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