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. Thier 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 <u>Sentences in Swahili</u>
(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 <u>Bantu Sentence Structure</u>.
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

   munǎ 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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Chapter 1

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
                                                    (1)
been published, and other publications to date   make little or no
mention of the aspect of pitch.

The pitch phenomena of some other varieteies of Kongo have been
                          (2)
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
                    (3)
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.

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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
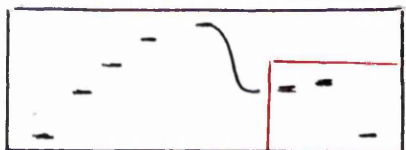
bazolele ssuumba madya   they wish to buy some food
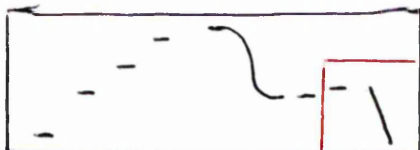
In these two sentences, the pitch pattern of omadya is $\begin{bmatrix} - \ ^- \ _- \end{bmatrix}$
but that of madya is $\begin{bmatrix} - \ \backslash \end{bmatrix}$.

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

tufwete vvutul' omatoondo kwaNdzambi amphuungu
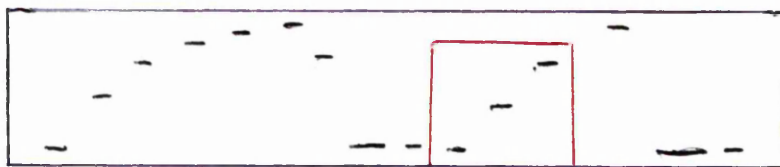
we should give thanks to God of the highest (= the supreme God)

The difference of vowel length in kwaNdza(a)mbi is associated with a difference of pitch pattern : kwaNdzaambi $\begin{bmatrix} - \ \smile \ - \end{bmatrix}$ as against kwaNdzambi $\begin{bmatrix} - \ - \ ^- \end{bmatrix}$.

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 (Makoondekwa), born in the village of Quibocolo (Kibokolo) 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 variet 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 (ˇ) over a vowel ; base pitch points are shown by underlining of vowels.
(1)

Konso muŭntu sě kaleend' okŭssoonga yo.   (6 items, 3 peaks)
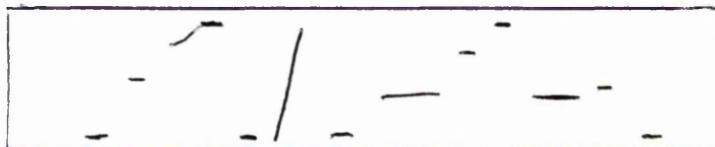
Any person will be able to show it to you.

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

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1. Use of the klicka to indicate peak pitch was suggested by Professor Guthrie. Throughout the study, (ˇ) 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:

Munkhotelo mukŭumbi dyazulu̱, o̱singa mmŏn' ennduumba̱ yi̱na

On entering the aeroplane (lit. car of the sky), you will see the young

woman who

yittǎambulaang' owaantu munkhotelo aau mukuumbi dyoodyo̱.(13 items,3 peaks)
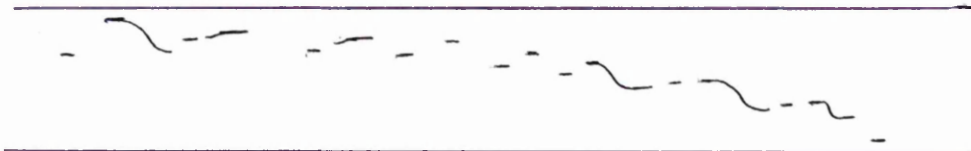
receives the people on their entry into the plane.

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 shor_ter than the previous one, in terms of number of items ; it has, however, five peaks:

Avŏ dyo̱odyŏ i̱dibwḭidi̱, o̱nwwu̱ti̱ wa̱toma mmeĕngwaanga mmbeeng' ayiingi̱

If this is what has happened, the mother would be cordially hated (with)

much hatred

kwa̱yakalǎ dyaandi̱. (10 items, 5 peaks)
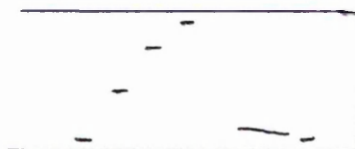
by her husband.

The next sentence is longer, but has only two peaks:

Ewaaŭna wininaang' evvoonga kwantsi yaNgola,
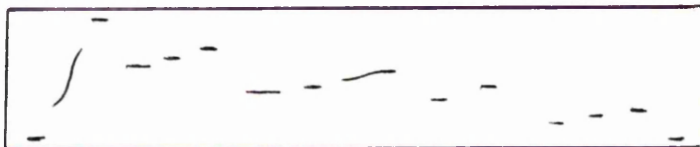
As is the extent of the country of Angola,

iwaaŭna mphe winaang' ewete wantsi yaayina .   (11 items, 2 peaks)
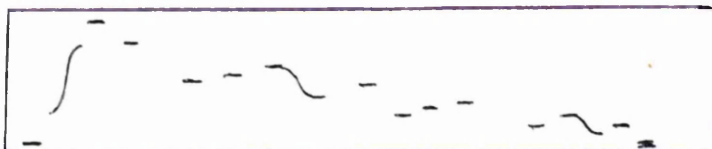
so also is the beauty of that land.

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.

Asadĭsi.   They are helpers.   Ovilăkeene.   She has forgotten.
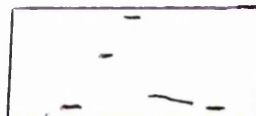
ii) the whole contour is at base pitch, with no appreciable rise or fall:

Tuyaantika.   Let us begin.   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:

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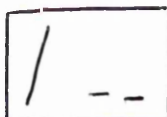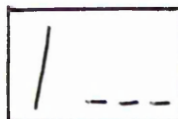
In very many cases, a peaked single-item sentence also terminates on base pitch.   If the final vowel carries the peak, the terminal base pitch is included in the vowel contour, giving a sharply falling pitch:

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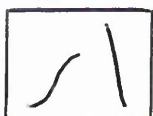
The extreme case of such inclusions is where the sentence consists of an item containing one vowel only, and both initial and final base pitch are embraced in its contour, together with the peak:

Ssě,   It is a colour.   Nttĭ.   It is a tree.

There are no cases of peakless sentences containing only one vowel.[1]

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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 lwamvviimba lwakkaka kasala.

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:

Nkhĭ osinga vvaanga?
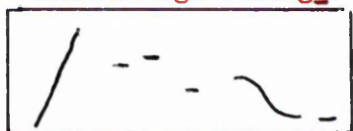
It is what that you are going to do?

(What are you going to do?)

Madya iddyă.
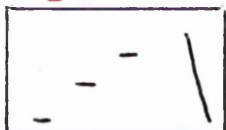
It is food that I shall eat.

(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 muǔntu / sě / kaleend' okǔssoonga yo.
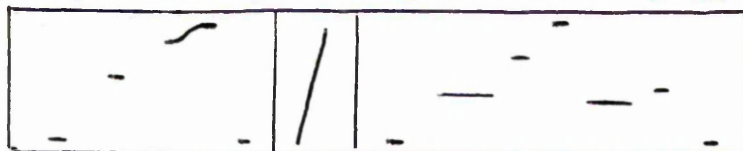
Any person / it is then / he may be able to show it to you. (1)

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

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

Eyyaka / kina kǎvaanga / kyǎkala / kyankkobo kǐkilu.
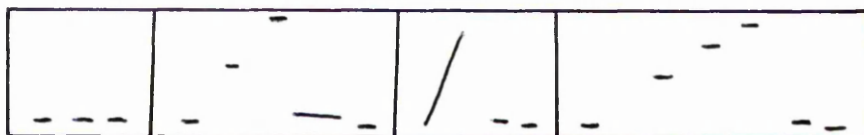
The fence / that one which he made / was / of strength indeed (very strong)

wǎvaangilwaang' effutu / kinu maǎna / kavumbamena.

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

Avǒ / dyoodyǒ / dibwǐidi, / onwwuti / watoma mmeěngwaanga mmbeeng'
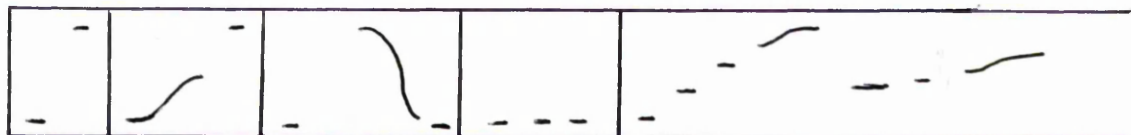
If / this / has happened, / the mother / was cordially hated hatred

ayiingi / kwayakalǎ dyaandi.
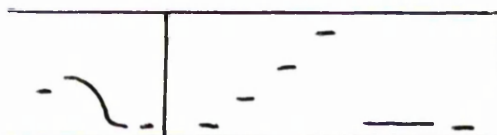
of muchness / by her husband. (1)(hated with great hatred) (2)

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 necessariyl 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 <u>not</u> indicate
pause.   When in future pauses occur in the material, they will be
represented by dash or comma:

avŏ / muuntu / katoloka -- koŏko / yovŏ / kuŭlu

if / a person / should break -- an arm / or / a leg

avŏ / dyoodyŏ / ditwĭidi, / onwwuti / watoma...

if / this /   has happened, / the mother / was cordially...

In the first case, pause does not coindide 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 :

kaddyǎanga 'he did in fact eat' implies / kaddyǎanga /

/ kalleěnd' ommokena 'he was in fact able to converse' implies

/ kalleěnd' ommokena /

whereas

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

mmbeeng' '

watoma mmeěngwaanga... 'was cordially hated' implies

'no phrase boundary after mmeěngwaanga'

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. / avǒ / '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 marke dly. For the purposes of this part of the discussion,
peaked phrases will be divided into two sections:

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

ii) the <u>falling section</u>, 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: [1]

<div style="text-align:center">1   2   3</div>

Lumingu lwamvviĭmba lwakkaka kasala.   It is a whole week more that
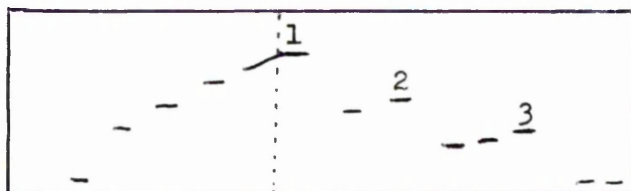
he worked.

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:

<div style="text-align:center">1 2 3 4   5   6</div>
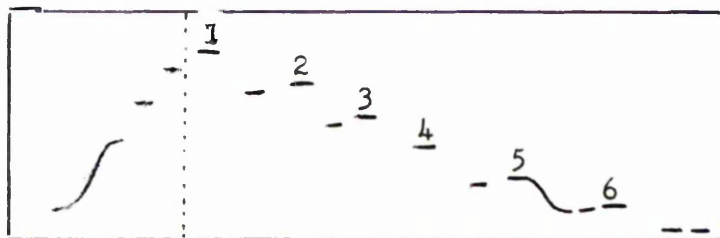
Vaava kamǎna ttelames' endzo aandi anthete   When he finished

building his first house

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 lwamvviĭmba lwákkaka kásala

Vaava kamǎna ttélamés' éndzo áandi 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 / sě / in the first example on p. 19 , where the peak, although phrase-final, shows no fall to base pitch. / dyoodyǒ / 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 vvǔtuká káka   he wants to return only (only to return)
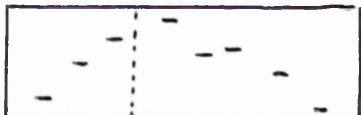
b) zolele vvǔtuká   he wants to return
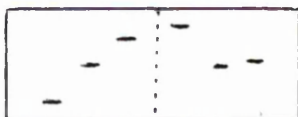
In (a), vvǔtuká shows the final vowel as the edge of a step; in (b)
-ká is the final vowel of the phrase, but is not at base pitch.
Neither does -ká / contain a terminal base pitch ; this is not an essential
feature of the end of a phrase.   It is to be noted however that -ká /
does not <u>begin</u> 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 <u>unmarked</u>
<u>pitches</u>.   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:

kalleĕnd' ommokéna   he was in fact able to converse
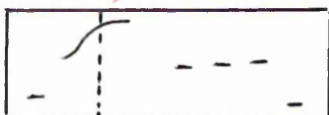
watoma mmeĕngwaanga mmbeéng' ayíingi   she was cordially hated (with)

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:

kwayakală dyaandi by her husband
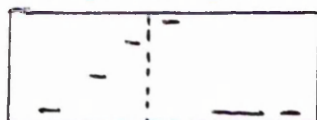
ovilăkeene she has forgotten
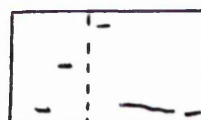
The descent in pitch during a final sequence of unmarked pitches
is gradual and slight, in contrast to the drop constituting a step ;
this is always very marked, even when the step is the final one in a
long series, as in

Vaava kamǎna ttélamés' éndzo áandi ánthete

cited on pp. 22-3 , where the drop in énthete 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:

bawǎan' éffulu   they found the flower
bawǎan' 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 kǎkaanga   it is food which he roasted
madya kakǎanga   it is food which he tied up   (1)

---

1.   The Zombo tie up articles such as food in nttete, baskets woven from
palm fronds, resembling the Moses' cradle made by English children from
reeds or rushes, and tied each end at the top.

kǎkaanga 'which he roasted' and kakǎanga '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 kkǎang' omádya   I shall fry the food
>
> isinga kkǎanga madyá   I shall fry some food

omádya 'the food' and madyá 'some food' are not distinct in the same way
as éffulu 'the flower' and effulú 'the place'.   The difference is to some
extent reflected in the English glosses by use of the definite and
indefinite articles, '<u>the</u> food' for omádya and '<u>some</u> food' for madyá,
although the parallel is not exact.   One point of difference between
the two is that omádya cannot occur unless 'the food' has already been
mentioned in the conversation, whereas madyá may occur even in the
opening sentence.⁽¹⁾

It may also be observed that difference of pitch pattern is
associated with a morphological difference ; omádya has an Initial Vowel
(IV)o-, whereas madyá has not.⁽²⁾   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 nefessary to apply the marked/unmarked distinctions to sounds

---

1.   Cf. Guthrie, <u>Bantu Sentence Structure</u> (<u>BSS</u>) p. 17, fn. 1 : 'In this
language ⌐ Kongo ⌐ it is necessary to distinguish initiating from non-
initiating sentences even in a neutral environmant'.

2.   Cf. pp. 12-13 under 1.0. above.

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
(1)
with dots, as against dashes for vocalic pitches:

mena băvwaang' émffunu those   which they possessed the need

(those of which they had need)
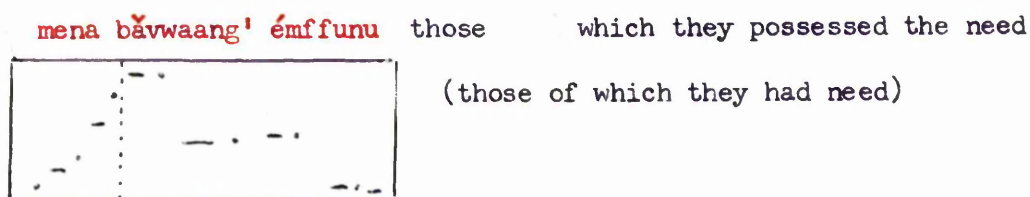
Phrase-initial consonants always begin at base pitch, though the
pitch may rise during utterance of the sound, and the rise may be sharp,
(2)
especially if the following vowel bears peak pitch:

Mmbŭ.   It is a mosquito.   Mbbŭ.   It is a lake (or sea).
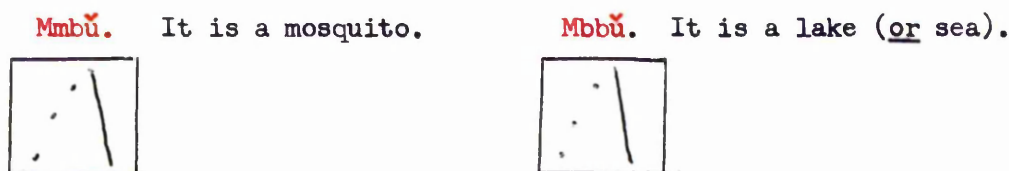
Where difference of meaning is correlated with difference of pitch,
however, the distinctiveness can always be described in terms of vowel
pitches only. The conclusion is that consonants and semi-vowels are
not involved in the system of marked/unmarked contrast, and that
account need only be taken of vocalic pitch. In consequence,
nothing further will be said of consonantal pitch, and as before,
only vowels are 'marked' or 'unmarked'.

---

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 :

wakǎanga   he tied up   wăkaanga he fried

-ǎa- and -aa- are of longer duration than the preceding of following vowels in each case.   There is no interruption of articulation, scuh as a glide, at any point during the 'long' vowel.   In the case of wakǎanga, 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:

...mazziíngu... of the life

-ií- 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 (1) is without prejudice to what may later be said.

It may be added that I have not found it useful to describe in (2) 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:

...zaaákala   of males

cf.   aakǎla   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 [1]. 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:

bǎsadilaanga -- / nllongo myayĭingi they used to use -- / many remedies
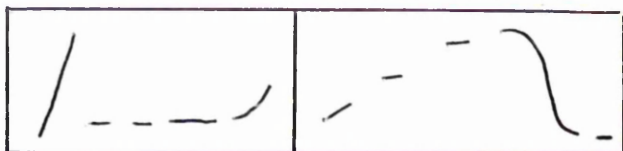
watala yǒ -- / wǎmona vó -- / yǎtolok' ekúulu
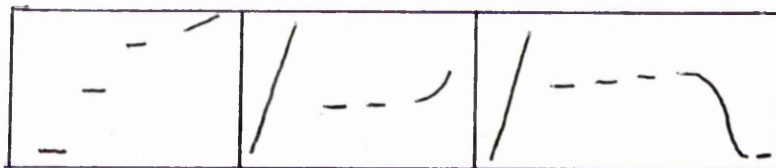
He looked at it -- / he saw that -- / it had broken its leg.

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 kwaǎku kyámmbot(e) e? are you in completely good health?

---
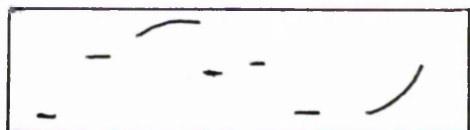
1. None in the data contains more than seven items, although this is not regarded as an absolute limit.

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:

wavaanga kyǒ
he made it   and   and
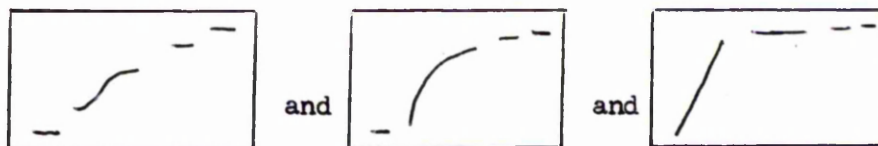
There is not sufficient regularity to allow of interpretation in terms
of a 'upstep'.   Such variation is not found in falling sections, but
is frequent enough in rising sections to lead to the con lusion that,
in the latter, pitch variation is not significant. (1)

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 wwaǎna ffúlu**   they want to find a flower
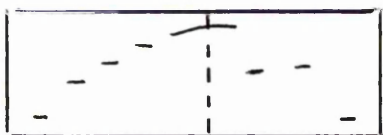
(b) **bazolele wwaǎna ffulú**   they want to find a place
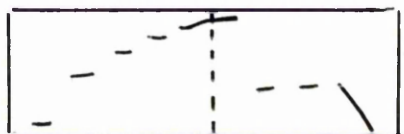
In the next two sentences, (c) and (d), the two are not distinguished:

(c) **ffulu kǎka ndzolele**   it is a flower only that I want

(d) **ffulu kǎka ndzolele**   it is a place only that I want
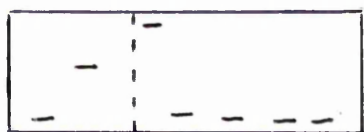
(c) and (d) are indistinguishable sentences, despite the lexical difference of the first item, which occurs in the rising section. Compare also:

wakaanga madyǎ   and   **wakaanga madyǎ**
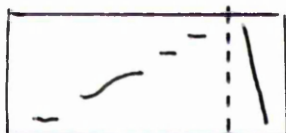
he fried some food   he tied up some food

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:

wăkaang' omádya   and   wakăang' omádya
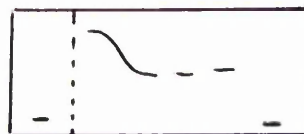
he fried the food   he tied up the food

where wăkaang' 'he fried' is distinct from wakăang' 'he tied up'. Here wăkaang' occurs totally in the falling section, while wakăang' 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 vvutukă   and   zolele vvŭtuká

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 <u>final</u> vowel of the following item, vvutukǎ, but after
zolele 'he wants', the peak is on the <u>first</u> vowel, vvǔtuká. Moreover,
in the second case there is a second marked pitch, at a point corresponding
to that of the peak pitch in vvutukǎ.

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 vvutukǎ and vvǔtuká ; 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 / ikyaǎki   <u>the place that he wants</u> / 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:

ovviingꙮla / idyambu dyakꙮkoongo   'to wait for' / is a Kongo word
ovviingila / idvambu dyakꙮkoongo   'to repaĺce' / is a Kongo word

ovviingꙮla '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:

effulu / ꙮkazolele   the flower / is what she wants
effulu / ꙮkazolele   the place / is what she wants

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:

effulu kyămmbote / ikyaăki   the prettiest flower / is this one
effulu kyămmbote / ikyaăki   the best place / is this one

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 paked 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 :

Ïffu kyántsi   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

Ïffu   it is the custom

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

ffulu kǎka ndzolele   it is a flower only that I want

cf. ffulu kǎka   it is a flower only

and ffǔlu   it is a flower

Compare also:

ffulu kǎka ndzolele   it is a place only that I want

cf. ffulu kǎka   it is a place only

and ffulǔ   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 muŭntu / sě / kaleend' okŭssoongá yo.   (6 items, 3 phrases)
Anybody / will / be able to show it to you.

(1)
Eyyaka / kina kàvaanga / kyǎkala / kyankkobo kĭkilu.   (6 items, 4 phrases)
The fence / that one which he built / was / very strong.

Cf. also:

Wamona ffulŭ kin' ówaántu beddíilaáng' owaántu.   (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 :

avŏ / omwaana / kadila if / the child / should cry

wasǎmunwinaang' omwáana tusaánsu she used to tell the child stories

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

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

(a) asadisi ǎkkaka ákalaanga / muna njěnga other helpers who were / in
                                             the vicinity

(b) asadisi ǎkkaka / ǎkalaanga / muna njěnga 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
/ ǎkalaanga '(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-$nitial, may be governed by its
syntactic status.   In the pair quoted immediately above, indeed, the
phrasing appears to tbe the only marker of distinction between the
relative and indicative verbals.   In the / omwaana / and ...omwáana...
examples, on the contrary, the phrasing distinction is not the only one.
/ omwaana / may be described as a 'subject', and ...omwáana... 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,[1] 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.

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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 indepedent :
controlling the agreements of other items, such as verbal prefixes, or
dependent : with class controlled by an indepeddent 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 <u>verbals</u>.   These are built up round a core, or <u>radical,</u> 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 sigh of present/future
>
> -tu- object infix 'us'
>
> -waan- radical 'find'
>
> -a- post-radical vowel
>
> -anga continuative suffix)

The hybrid <u>nomino-verbals</u> 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)bakutuwaanaanga '(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 <u>nucleus,</u> 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'[1] and
further as that element of a structure which 'needs no support'.[2]
Many sentences consist of a nucleus only, e.g.

Tuyaantika. Let us begin.   Dyǎmmbote. 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

Edyaadǐ / idyǎvovwaanga. 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, where as the first one is not.
A nucleus may however consist of more than one item:

oluta ttǒma llongókaanga   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.

---

1.   Guthrie, BSS p. 2.

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:

   ollongŏkaanga / mambu mayĭingi he learns / many things
but ollongokaanga maămbu   he learns things

ollongŏkaanga may stand, with this pitch pattern, as a complete sentence;
ollongokaanga... may not. One may say that, pitch-wise, the following
item maămbu 'things' supports 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   A
edyaadĭ / idyăvovwaanga this / is what used to be said

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

---

1.   See 2.1.4., pp. 66-9.

The terms in which units are defined are as follows.(1)

1.6.2.1. Position of the unit inrelation 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 dv- 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   A
  emaamă / imăvovwaanga these / are what used to be said

Replacement of edyaadĭ by emaamă as P entails the replacement of
the verbal prefix dv- by m- in the A verbal.

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

      A   Q+
    băvovaang' eédi they used to say this

The item makred 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.

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1. Guthrie, BSS pp. 6 and 8.

For example, the P unit illustrated in the sentence

<pre>
    P   A
edyaadĭ / idyǎvovwaanga   this / is what used to be said
</pre>

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 <u>contain</u> items in other than nominal categories:

<pre>
    P ———— X   A   (1)
edyaadĭ ozeévo / idyǎvovwaanga   this therefore / is what used to be said
</pre>

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 <u>BSS</u> also makes use of the criterion of <u>support</u>.   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 <u>cohesion</u> -- 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+ :

<pre>
        A   Q+
    bǎvewaang' elaú   they were given the chance

        A   X   Q+
    bavewaanga kĭkilu elaú   they were indeed given the chance
</pre>

---

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 defined 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 <u>entailments</u> of structures containing the unit under discussion.

The term entailment is derived from Professor Wilfred Whiteley's work in Yao and Swahili [1], 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 [2].   The following, for example, form an entailed pair:

    (a) $\overset{1}{\text{wamona}}$ $\overset{2}{\text{woŏnga}}$ he saw (= experienced) fear

    (b) $\overset{1}{\text{woonga}}$ $\overset{2}{\text{kămona}}$ it is fear that he saw

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

---

1. See especially Whiteley, <u>Yao Sentences</u> pp. xx and 116.

2. Gleason has recently introduced the term <u>agnate</u> for structures related in this way.   See <u>Linguistics and English Grammar</u>, 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 kámona in (b) is represented by wamona in (a), and woonga in (b) by woŏnga in (a). Diagrammatically the relationship could be symbolized:

(a) 1   2   <u>or</u>   (b) 1   2

(b) 1   2   (a) 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 <u>entailment partners</u>. In the example, both elements in both structures have each one entailment partner in the other ; e.g. wamona (a) and kámona (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 woŏnga   he saw fear

(b)   woonga kámona   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 <u>different</u> structures. 'The man saw the dog' and 'The dog saw the man' are examples of the <u>same</u> structure, therefore not entailments; in Gleason's terms they are <u>enate</u>.

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 _infer_ _red_.

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

                 indicates that the first unit in (a)

(b)   1   2   is under discussion
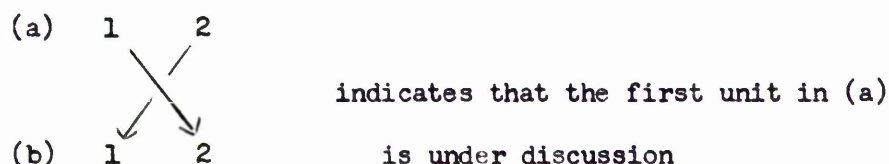
Numerals have been used to symbolize elements of structure in the examples, but these are now replaced by the units labels to be used.[1]

    A   Q-
  wamona woŏnga

              diagrammatically represented:

    A   K
  woonga kămona

A   Q-

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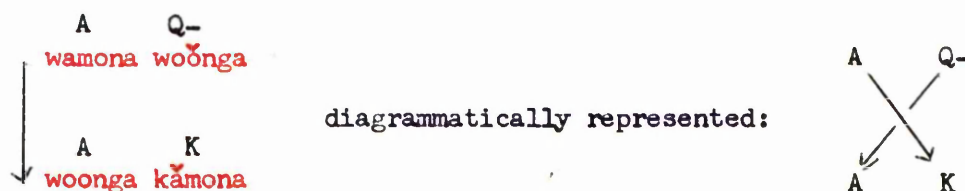
So far each element has had one entailment partner in the partner structure, but it sometimes happens that a unit may have two representatives in a partner structure:

        A   Q+
    ollongŏkaang' emóómo   he learns _this_

  P*   A   Qs
  emoomŏ / ollongokaanga mŏ   _this_ / he learns _it_

Diagrammatically represented:

A   Q+

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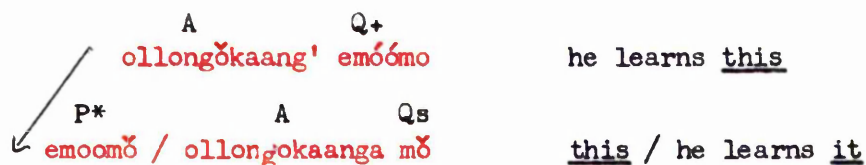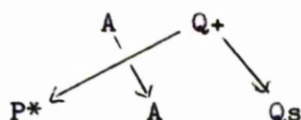
The Q+ unit is represented by _two_ entailment partners, P* and Qs.

---

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, ctonrol, 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:

(a) A   Q-
    wamona woŏnga   he saw _fear_

(b) A   K
    woonga kămona   _it is fear_ that he saw
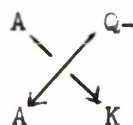
woonga 'it is fear' filling A in (b) is a member of the Q-/SC functioning as nucleus. To emphasize this point, the symbol A in (b) may be replaced by $\boxed{\text{Q-}}$. Any symbol in a square is to be interpreted as 'member of the (label) SC functioning as a nucleus'.[1] Thus the entailment could also be shown as
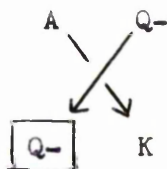
underlining the fact that $\boxed{\text{Q-}}$ is a member of the Q-/SC, as well as a representative of Q- in the datum structure. Other special forms of labelling are explained at their introduction.

---

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   L
>   madyǎ malaambilu   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   Q-‾‾‾‾‾‾‾L
>   badiidiingě madyá malaambilu   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   Q-‾‾‾ L _____ J
badiidiingě madyá malaambilu / kwankkeentŏ

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

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 <u>junctures</u> of particular pairs of units to see whether or not
the juncture is characterized by phrase boundary, or one may look at
individual <u>units</u> 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 'phrase-initial', or
'non-initial' (or sometimes both). Only in one case has it seemed useful

(1)

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
(2)
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 onlyto the
initial,or head, item. The phrasing cf 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 lost, 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   ii   iii
> emabuula mamyǎanzi myánkhengakyaása

the bark (= skin) of the roots of the nkengakyasa 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
         (1)
   the group.   A chain group may include dependent pronominals:

> P   ii,
> omaaza mǒomó these waters

---

1.   Cf. Guthrie, BSS p. 8, under (a).

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+   ii
  ezaak' ĕnthaangwa some times

which consists of an independent nominal enthaangwa 'times' controlling
the agreement of a dependent nominal whose stem is -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   ii   iii
   emabuula mamyăanzi myánkhengakyaása

  the bark of the roots of the nkangakyasa shrub

Here emabuula 'bark' controls the prefix ma- attached to myaanzi 'roots',
which in turn controls the prefix mya- attached to nkhangakyaasa.   A
                 (1)
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   ii   iii   iv
   entsusu amwălakázi ánttomeséno áte

  the chicken of the nursing mother of the improvement of the saliva

   (chicken given toaa nursing mother to bring back her appetite)

---

1. Cf. Guthrie, BSS p. 8, and no. 8 on p. 20, whwre 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 :

<pre>
        P   ii
        yandǐ mpfumu   he the chief (yandi Class 1, mpfumu Class 9)

        S   ii
        munǎ vata   in there the village = there in the village

                       (muna Class 18, vata Class 5)

        zaǔ vwa   they a ninesome = the nine of them

                       (zau Class 10, vwa Class 5)
</pre>

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

<pre>
        P   ii   iii   iv
        yandǐ mpfumu ǎvata dyóódyo he the chief of village that (that village)
</pre>

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:

```
A       ii      iii
oluta ttŏma llongókaanga   he usually learns best
```

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)

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:

```
A                              A
madyǎ  it is food (nominal)    bawǎana  they found (verbal)
```

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

```
A        L
madyǎ malaambilu   it is food which has been cooked
```

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

```
A        Q+
bawǎan' effulú   they found the place
```

whereas a nominal filling A, other than a   nomino-verbal
(which madyǎ 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 <u>units</u> 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 accidence; the unit is only partially defined by the SC.

1.7.4. <u>Negative structures, interjections and ideophones</u>

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. <u>Orthography</u>

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.[1] These are irrelevant to the immediate concern, but will be explained

---

1. As in Carter, 'Consonant Reinforcement', but <u>not</u> as in Makondekwa and Carter, 'Notes on Legal Terminology'. One major change is that vowel sequences are here spelt more phoentically : e.g. mwaana 'child' and not muana.

(1)

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 <u>nlloŏngo</u>   they used to employ <u>remedies</u>

but   bǎsadilaanga / <u>nllongo</u> myayĭingi they used to use / many <u>remedies</u>

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' osĭnga vvǎanga those which you are going to do

cf.   mena kasĭnga vvǎanga 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 dyŏody(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

<u>pitch-phrases</u>, 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.

peaklers

but in some cases at least, the <u>peaked</u> phrase may be regarded as a

truncated version of a peaked phrase.

Peaked phrases tpyically consist of two section, 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 porposed to describe the syntax -phrasing 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 indepeddent 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. makǎkilaanga 'it used to stop'.   A stabilized item is
one which has a stabilizing pre-prefix, e.g. i-kǎvaangaanga 'it is what he
used to do'.   Examples of both kinds are shown below:

stable verbal: A
                    emeenga / makǎkilaanga / vava vǎau

            the blood / used to stop (flowing) / at once

                        A
                    ozeěvo / waboonga mabayǎ

            therefore / he took some planks

        A   ii
      tusinga vveěng' évvovolóla   we shall avoid repeating

The nucleus here consists of a verbal group.

        A
      tuyaantika   let us begin

stable nominal :   A
          mavăta   they are villages

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

The nucleus here is a nominal group.

   A
  nkhǐ kasínga vváanga? it is what that he is going to do?

                (what is he going to do?)

           A
   edyaadǐ / dyallŭdi this / is of truth (i strue)

The nucleus dya-llŭdi '(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
               ikăvaangaanga it is what he used to do

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

                iA
       oyaandi / sekammŏna 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:

                              iA
                ewaaǔ / udikkadǐlaanga this / is how it is (for)

stabilized nominal:
                          iA
                        imávata   they are the villages

                    iA   ii
                  imavata mǎmmbote they are the villages of goodness (best ones)

                                        iA
              edyanthet(e) ofwěte vváanga / idyakweěnda

          the first thing you have to do / is of going (is to go)

                      iA
              edyaambu / sěssaka disakidi

        the affair / it is now being too much that it has become too much

                (the situation is now absolutely intolerable)

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 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 encount‿er 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 [1]

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. [2]   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 : ozeevo 'therefore' and naanga 'perhaps'. [3]

X preceding nucleus: X   A
                          ozeěvo / waboonga mabayǎ therefore/he took some planks

                      X   A
                      năanga / ntsǎ   perhaps / they are red antelope

                      A   X
X following nucleus: nкhǐ ozeévo?   it is what therefore ? (what is it then?)

                   A   X
                   bavewaanga kǐkilu elaú they were indeed given the chance

 A   X
woonga kǎka kalénda yó mmweéna 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 ——— X
  wayangalala beěni kíkilu he was happy very indeed (very happy indeed)

---

1.   Based on the 'x item' of Guthrie.   See BSS, 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; ozeevo and naanga may be better classed as Beta.

<u>Phrasing</u>.   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.   <u>Xa unit</u>

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 <u>final</u> position in a sentence, and it never contains sub-units:

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

             A   Xa
oakuundi ǎaku / ayiingi benǎang' e? your friends / is it many that they are?

<u>Phrasing</u>.   Xa is non-initial.

               (1)
2.1.3.   <u>K and Ka units</u>

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, <u>BSS</u>, 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. /udikkadǐlaanga '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 <u>BSS</u> :

	Q	ii	A			A	ii	K
BSS	nsangu	zambi	ntangidi	cf. Zombo		ntsaangu	zǎmmbi	nthaangidi
	news	bad	<u>I have read</u>			it is bad news		<u>that I have read</u>

(BSS underlining for the nucleus is replaced here by the label A;
the underlined Englih indicates the BSS nucleus paralleled by Zombo K unit.)

    A   K
llĕkwa kaveeno it is a thing <u>that she has been given</u>

    A   K
kumaaki zittŭukaánga   it is from eggs <u>that they come</u>

    iA   X   K
ĭnthaangw' ozeévo kávewaanga it is the time therefore <u>that he was given</u>

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   K
  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. This is labelled Ka[1] :

    A   Ka
vvutulwă kivvútulwaánga it is to be returned <u>that it is returned</u>

                          (it is always retur̃end)

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, <u>BSS</u>, 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   A   Ka
BSS   dya betidya   cf. Zombo   ddya beddyăánga

     they are eating   it is to eat <u>that they are eating</u>

(In the labelling of the BSS Kongo example, the label A replaces the underlining used by Guthrie to indicate the nucleus of a sentence.)

<div align="center">

iA   ii   iii   K

ituukŭ dyámphovélo / yina tubbŏokelaánga

</div>

  it is the origin of the word / that one <u>which we call</u>

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

<div align="center">

$\boxed{\text{iK}}$

emaamă / ikăvaangaanga   this / <u>is what he used to do</u>

$\boxed{\text{iK}}$

oyaandi / sekammŏna   he / <u>it is then that he will see</u>

</div>

cf. kávaangaanga 'which he used to do' and kammóna 'which he will see'.

<u>Phrasing</u>. K is always phrased with the preceding item.

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

<div align="center">

i   ii   iii   iv   K   A

emmboongo zŏozó zaloóngo / zina bătaambulaanga / zăkalaanga

</div>

    the said marriage goods / those <u>which they received</u> / were

The K item bătaambulaanga '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 anpear in relation to the same item; in this case K is always preceded by a pronominal (which begins a phrase):

<div align="center">

A   K1   Aii   K2   ii

llăkwa kaveeno / kina kafwĕte ddyá

</div>

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

  (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 [1]

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   A
oyaandi / wǎsaalaanga   she / used to remain

oyaandi controls the prefix w- of the verbal filling A.

    P   iA
oyaandi / iwǎsaalaanga   she / is the one who used to remain

    P   A   K
ellumbu / kibi wiǐzidi   the day / is too bad that you have come

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

ellumbu 'day' controls the prefix ki- of kibi 'it is too bad'.

    P   A
edyaadǐ / dyallǔdi   this / is of truth (this is true)

edyaadǐ 'this' controls the possessive prefix dya- attached to llǔdi.

ii) P does not control the agreement of A, A being of a kind where such
                             (2)
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 ⌐ = predicate, equivalent to the nucleus
A here ⌐ where the relationship cannot be shown'.

independent nominals, or when A is a stabilized dependent nomino-verbal

of the K/SC:

             P   A

        ewwuta / kiyikă   to give birth / is to add to oneself

    P   A

  endziimbu / nkhătu money / it is emptiness (I hadn't any money)

      P   iK

    emaamă / ikăvaangaanga this / is what he used to do

iii) P* controls the agreement of primary K:

    P*   A   K

    engudi / llěkwa kaveeno the mother / it is something that she has

                            been given (the mother has been given something) (1)

engudi 'mother' controls the agreement of kaveeno 'that she has been given'.

I have here adopted Guthrie's device of labelling P* to indicate that (2)

P*is supported by A but not in direct relationship with it . 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*   iA   Ka

      edyaambu / sěssaka disakidi

the affair / it is now being too much that it has become too much

        (the situation is now quite intolerable)

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

    P*   A   Qs

    omoomŏ / ollongokaanga mŏ these (matters) / he learns them

omoomŏ 'these' controls the agreement of mŏ 'them'.

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

    which is not a primary unit:

---

1. 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'.

```
      P*              P      ii    A
  enangaandi / nkhuumbu ǎandi / Vitǎ  So-and-so / his name / is War
```

(1)

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
(2)
   'in hiatus'   :

```
      P*      ii        A
  eammbuta zawaǎntu / kkǐna   the elders of the people / it is dancing
```

                              (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             A
  asonekǐ / bassonekaangǎ   writers / write  (cf. oasoneki)

  P ⎯⎯ K        iA
  edi kǎzola / idyakkalǎ  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         X        P        ii
  dyamffunu beěni / edi dyǎssungamená 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, BSS, 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 zandzatǔna 'snapping speech'.

<u>Phrasing</u>.   P and P* as primary unit begin a phrase.   Two points should
be noted here.   Firstly, the phrasing characteristic applies only to the
<u>head item</u> 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‾‾‾‾E   A   ii
> ese / yŏngudi / bafwete kkalǎ <u>the father</u> / <u>and mother</u> / 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.

(1)

    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.   <u>Pa unit</u>

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

> P   A   Pa‾‾‾‾K   ii
> ekkuma / nkhǐ omuúntu kafwéte yyindwǐl' éndza zoolé káka?

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

    (why should the person remember only two worlds?)

Pa here controls the agreement of K : ka- of kafwéte 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‾‾‾‾ii‾‾‾‾K
> vaav' ǎkulu éeto básadilaangá dyo then that our <u>ancestors</u> used to
>
> practise it (when our ancestors used to practise it) (cf. oakulu)

<u>Phrasing</u>.   Pa is a non-initial unit, phrased with the preceding item.

---

1.   E.g., the P sub-unit in G.   See 2.1.20.

(1)
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:

    A   L
    nttela ussŭkaánga   it is stature which comes to an end

                          (one stops growing -- but not learning)

    A   L
    Lludi wayĕndaang' emmbaánza it is Truth (personified) who went
                                                        (2)
                          (walking to) the city

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

    P ———— L   ii   A
    enanaäzi dyalémbi bbwaáka / dyatŭutwaanga

    a pineapple which has failed to become ripe / was pounded

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:

    i   ii   iii   iv   L
maamǎna mawóonsono mazziíngu / kina kikkalǎanga

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

kina 'that (one)' controls the subject prefix of kikkalǎanga 'which is' and

is itself in an appositional group with (ma)zziíngu '(of) life', forming

part of a larger group. Cf. also:

    A   ii   L
maambǔ / mena mǎkoondwa mffúnu they are matters / those <u>which lack</u> prʊfit

                                         (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   ii |iL|
ebuula dyǎandi / idyatǔutwaanga the bark of it / <u>is what used to be pounded</u>

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

    iA   L
    idyaǎdi dyávovwaanga it is this <u>which used to be said</u>

    P |iL|
edyaadǐ / idyǎvovwaanga this / <u>is what used to be said</u>

    iA   L |iP| L
    ↓   ↓   or, showing SC of iA :   ↓ ↓
    P   iA   P |iL|

<u>Phrasing.</u> L is invariably non-initial, and this characteristic serves

to distinguish it from the morphologically similar A verbals, which are

 always phrase-initial:

```
       P ̅ ̅ ̅ ii ̅ ̅ ̅ L
```
asadisi ăkkaka ákalaanga some other assistants <u>who were</u>

```
       P      ii      A
```
cf. asadisi ăkkaka / ăkalaanga some other assistants / <u>were</u>

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
```
maambŭ / mena mǎkoondwa mffúnu they are matters / those <u>which lack</u> profit

Members of the L/SC with stabilizing pre-prefixes, functioning as iA,
follow nucleus phrasing and are phrase-initial. (1)

2.1.6. <u>E unit</u>

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 <u>extension</u> is here used in contrast
to <u>expansion</u>.   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 mamyǎanzi   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 ⟨which⟩ belong also to the C/SC   may be <u>stable</u>
in the A slot.   See 2.1.8., p. 82, under (iii).

Examples are limited to E extending units already defined.

    A   E
  nkhŏombo / yongulŭ   they are goats / and pigs

A   X   E
kyammbi kĭkilu / yeyăkoondw' ĕmffunu it is very bad / and lacking profit

     A   X   E
  dyafiimpwaanga dyaăka / yeffimpŭlulwa

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.

    [iL]   E

idyatŭutwaanga / yolleekeswă it is what was pounded / and steeped

          L ——————X   E
  mana makilĕkolweeloongó kalá -- / yoyyalwă

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

More than one E may extend the same unit:

        L ——————El   E2
kina kittăambulaangá / yovvyookesă / yottwiik' ĕmeénga

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

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

     A   ᵢᵢ   ᵢᵢᵢ ————— E ——— X
  nkkw' ănttim' avvólo / yewanzziizidi kĭkilu

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 avvólo 'of calmness' ; ye- is attached to

a nominal with possessive prefix wa- in agreement with nttima '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:

> A   E
> nkhŏombo / yongulŭ   they are goats / and pigs
> A   E
> ngulŭ / yĕnkhoombo   they are pigs / and goats

> A   E
> wăsaanzula / yollaambula wŏ   he widened / and deepened it
> A   E
> walăambula / yossaanzula wŏ   he deepened / and widened it

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 subunit, E is phrase-initial.   /b
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 [1]

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:

<blockquote>
A   Q+
wăvoond' endzuzí   he killed <u>the cerval cats</u>

A   Q-
wavoonda ndzuzĭ   he killed <u>some cerval cats</u>
</blockquote>

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 <u>BSS</u>, 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 <u>BSS</u> examples of pre-nucleus Q are
paralleled by A : K in Zombo, e.g.

	Q	ii	A			A	ii	K
BSS	nsusu	zole	miβondele	cf. Zombo	ntsusu	zoolĕ	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
<div align="right">study.</div>

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):   A   Q+
                              wǎvoond' endzuzí   he killed the cerval cats

                                 P   Aw
                              endzuzi / zǎvoondwa   the cerval cats / were killed

      diagrammatically represented :

      A \ / Q+
         X
      P / \ Aw
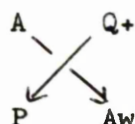
Q+ passive entailment (ii):   A   Q+
                              wǎvoond' endzuzí   he killed the cerval cats

                                 iA   Lw
                              indzǔzi závoondwa it is the cerval cats that

                                                          he killed

      diagrammatically represented:

      A \ / Q+
         X
      iA / \ Lw
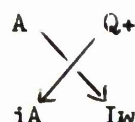
Q+ is represented in the first entailment by P, and in the second by

iA -- a stabilized nominal nucleus.

Q- passive entailment: A   Q-
                           wavoonda ndzuzǐ   he killed some cerval cats

                              A   Lw
                           ndzuzi zǎvoondwa it is cerval cats that were killed

      diagrammatically represented:

      A \ / Q-   A \ / Q-
         X   or   X
      A / \ Lw   Q- / \ Lw
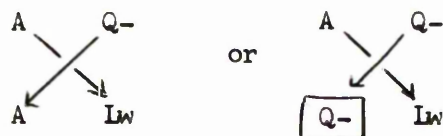
Here Q- is represented by A -- a stable nominal nucleus, not stabilized,

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 cerval cat/they are cerval cats'
has no pre-prefix, in contrast to indzŭzi 'it is /they are the cerval cat/s'
which has stabilizing pre-prefix i-.

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

      A   Q+
     wăvoond' endzuzí   he killed <u>the cerval cats</u>

  P*   A   Qs
  endzuzi / wavoonda zŏ   <u>the cerval cats</u> / he killed <u>them</u>
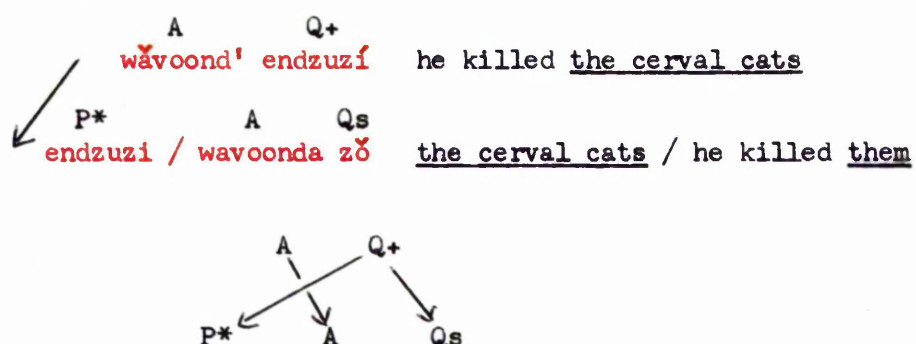
Qs symbolizes 'object substitute'.   Q+ has two entailment partners
here, P* and Qs.   Q- cannot be represented by either.

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:

    A   Q+
  wăvoond' endzuzí   he killed <u>the cerval cats</u>

   iA   K
  indzŭzi kávoonda   <u>it is the cerval cats</u> that he killed

    A   Q-
  wavoonda ndzuzĬ   he killed <u>some cerval cats</u>

    A   K
  ndzuzi kăvoonda   <u>it is cerval cats</u> that he killed

The diagrams may be placed side by side to emphasize the difference:

Here agian 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:

   A   X   Q+
bavewaanga kĭkilu elaú   they were indeed given <u>the chance</u>

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

   A   E   Qs
wǎsaanzula / yollaambula wǒ he widened / and deepened <u>it</u>

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:

      ┌──────────────────────┐
      L ─────────── El   E2   Q+
kina kittǎambulaangá / yovvyookesǎ / yottwiik' ĕmeénga

that which receives / and passes on / and sends <u>the blood</u>

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[(1)], but Q- is often found unlinked:

<div align="center">

A   Q-1   ii   Q-2   Q-3

bǎtwaasaanga / myendo myǎnkhuni, / madyookǒ, / ngubǎ

they used to send / bundles of firewood, / <u>manioc,</u> / <u>peanuts</u>

</div>

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:

<div align="center">

P   ii   L   Q+   ii   iii   iv   v

eyyitu / kina kyǎtaambulaang' entsaángu zóózo zánjyeelélo antsaáng' ánkkeénto

the kinsman / that one which received <u>these news of the illness of the</u>

<u>female relative</u>

</div>

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 <u>head</u> of a unit.   Q+ extended by E, for instance, shows
the customary phrasing of the E head, which is always phrase-initial:

<div align="center">

A   Q+   ii   E   ii

wavǔmin' édyoóko dyángani / yengub' ǎngani

he respected <u>the manioc of the other man</u> / <u>and the peanut of the other man</u>

</div>

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:

<div align="center">

A   ii   Q+   ii   L   Q+

osinga mmǒn' enndúumba / yina yittǎambulaáng' owaántu...

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

</div>

---

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 ... / madyookŏ, / ngubă

Q-2   Q-3

example at the top of the previous page.

Single-item Q- units are otherwise non-initial, as in wavoonda ndzuzĭ

A   Q-

'he killed some cerval cats'.

However, at this stage of the investigation, there appear to be phrasing 'alternations' for Q- consisting of s 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 ffulŭ kin' ówaántu beddíilaáng' owaántu

he saw <u>a place which has the people who eat the people</u>

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
băsadilaanga / nllongo myayĭingi   they used to use / <u>many remedies</u>

A   Q-   ii   Q+   ii
wasĭimbaanga / eki kyalloŏng' enndezí zawáana

they undehtook / <u>this (work) of teaching the nurses of the children</u>

(1)

---

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 <u>syntactically</u> 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 ffulŭ... above; E begins a new phrase at the head:

    A   Q―――― E
    wavaanga kkŭundá / yomĕeza   he made a chair / and a table

Q- then comes to the fore as the first of the syntactic units defined which does not appear to have obilgatory 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-, 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 depedent nominals, capable of displaying agreement. The C unit of Zombo includes independent nominals incapable of showing agreement.

(1)
independent nominals without Initial Vowel, dependent nomino-verbals

and nominals with dependent prefix displaying agreement with the nucleus,
(2)
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(i)l- 'think of as'.

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

(i) independent nominal:

        A   X   C   ii

        winaangǎ mphe / mwan' aᴺdzǎambi

        he is also / the child of God

(ii) nominal with dependent (possessive) pre-prefix:

      P   ii   A   C

      eppaau kyǒokyó / kyakala kyangolǒ

      the said spade / was of strength (was strong)

(iii) dependent nomino-verbal (limited to L verbals of Tense 2):

      A   ii   C

      fwete kkala wǎkubama she must be (one who has become) prepared

Since nominals of the C/SC never have IV, the C/SC is co-extensive w

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   (1)

njina wǎkubama   I am <u>ready</u> (lit. one who has become ready)

     [C]   K

wakubama njinǎ   <u>it is ready</u> that I am (it is a ready person...)

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

E ———— Q+   ii   iii ——— L ———— C

yovvuǔvik' ezziǐngu kyánkkeénto / ndyona winǎanga wavílamenwa

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

<u>Phrasing.</u>   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 <u>persons</u>; it is limited
to nominal <u>classes</u> only.   The C item here has a prefix of Class 1,
3rd person, whiel the A verbal has a subject prefix of Class 1, 1st person.

2.1.9. M unit (1)

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 kwaăndi

      the planks / ... / were getting <u>completely</u> 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' ămpfumu / impfumu kwăandi

      the child of the chief / is the chief <u>in fact</u>

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

---

1.   See Guthrie, <u>BSS</u>, 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 kwaăme / kuna yătuuka

I know <u>quite well</u> / 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   X
    tusinga bboŏnga / yikwa kwăandi káka

                                            (1)
we shall take / a few <u>in fact</u> only (only a few in fact)

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

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

        (2)
2.1.10. <u>F units</u>

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

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

    the child / has attempted already <u>to make progress</u>

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)tik- 'begin, start'.

---

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

2.   See Guthrie, <u>BSS</u>, 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+ ---→ P* : A : Qs entailment:

A   F+

oyyangǎleelaang' óttuumbw' ekímpfumu

(1)

he is happy about <u>being elected</u> to the chieftainship

P   A   Ka‾‾‾Fs

ottuumbw' ekĭmpfumu -- / yyangaleela kayyangǎleelaangá ko

<u>to be elected</u> to the chieftainship -- / it is being happy(about)that

he is happy about <u>it</u>

(2)
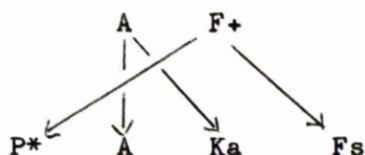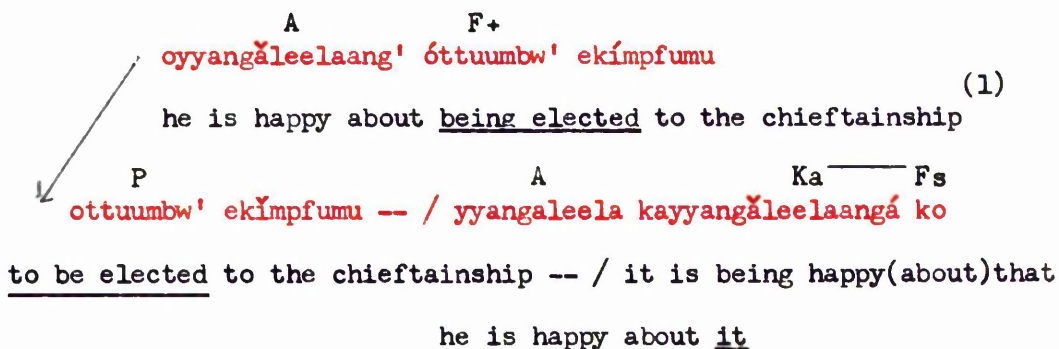
The entailment partners of F itself are P* and an object substitute,
labelled Fs   ; to this extent the entailment is as for Q+.   However,
here A also has two partners, A and Ka, these being associated with the
fact of the presence of the partners of F+.

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

---

1.   The unlaballed 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 Bs.   See 2.1.13.

```
       A          F-
    /  ndzolele vvutukǎ    I want to return

 /     A          K ———— Fa
↙  vvutukǎ ndzolele vvútuká   it is to return that I want to return
```
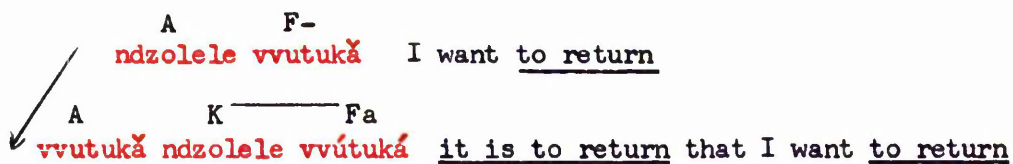
Here F- is represented, not only by A, but also by a unit labelled Fa, which repeats the radical of A.   This new unit is not labelled F-, which it resembles in respect of substitution class, because it does not itself take part in a further entailment of the above form.   The relationship is shown diagrammatically as follows:

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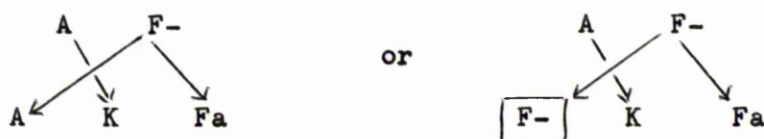
There is a strong preference for F- when A has a subject prefix of 1st or 2nd persons, and for F+ when the subject prefix is a 3rd person.

```
          A          F-
          ndzolele vvutukǎ    I want to return

          A       F+
but       bazolele ǒvvutúka    they want to return
```
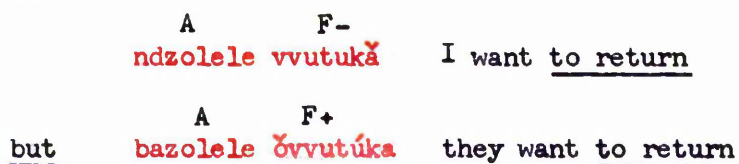
Neither preference amoun s to an exclusion, however.

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

```
              Q+ ———— K ———— F+
       muna vvengǒmon' edyáadína kakanini ǒvvaanga
```
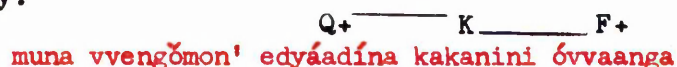
in order to ward off that which he has decided to do

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 ⁽¹⁾

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          N       ii
      venǎanga / yokkuma yayǐingi
```

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

```
    P ───── K       iA        N ───── L
    edi kǎzola / idyakkalǎ / yoffulǔ kifweene
```

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

(what he wanted was to have room enough)

```
      A          N
    wǎmonaana / yoyǎandi  he saw together / with him (= hemmet him)

      A            N ───── K
    bǎviingilaanga / yevanǎ 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 [1]. 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:

[2]

$$\quad \text{A} \qquad \text{N}$$
/ winǎanga / yevvǔmi he is / _with respect_ (is respectful)

$$\swarrow \quad \text{A} \qquad \text{K} \overline{\qquad} \text{Qn}$$
vvumi kenǎanga kyǎau   _it is respect_ that he has _it_
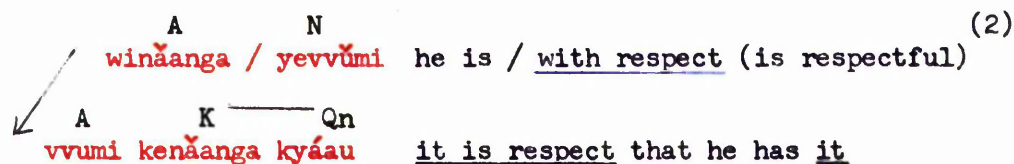
N is represented by both A and Qn:

$$\text{A} \qquad \text{N}$$
$$\text{A} \xleftarrow{\quad} \text{K} \qquad \text{Qn} \searrow$$

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. [3] 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 vvumi 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:

$$\qquad \text{L} \overline{\qquad} \text{Q+}$$
una winǎang' énkhuumbu   that _which has_ the name

$$\text{A} \qquad \qquad \text{C} \overline{\quad} \text{L} \underline{\quad} \text{X}$$
cf. benǎanga / wantu ǎkumama beéni _they are_ / people who are very gentle

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

$$\qquad \text{L} \overline{\qquad} \text{N} \qquad\qquad\qquad\qquad\qquad \text{L} \overline{\qquad} \text{Q+}$$
ona winǎanga / yěnkhuumbu   cf.   ona winǎang' énkhuumbu

that one who has the name (he is   that one who has the name (his own)

   named after someone else)

<u>Phrasing</u>.   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.   <u>Na unit</u>

The Na unit consists of a pronominal stem with ye- attached,
unlike N, whose head consists of $\overset{a}{\underset{\wedge}{}}$ 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 :Qn entailment which
applies to N.   Both units however share the characteristic of occurrence
after a verbal nucleus.   N and Na are sometimes contrastive:

     A   N
  wămonaana / yoyǎandi   he saw together / <u>with her</u>

                       (he met her as arranged)
     A   Na
cf. wamonaana yaǎndi   he saw together <u>with her</u> (met her by chance)

       A   N
    wayěnda / yoyǎandi   he went / <u>with her</u>   (she took him)

    A   Na
cf. wayenda yaǎndi   he went <u>with her</u>   (he took her)

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

<u>Phrasing</u>.   Na is non-initial, whether primary or subsidiary.

---

1.   Cf. Guthrie, <u>BSS</u>, p. 24, nos. 28-30, and p. 28, definition.

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:

```
    P          A         Q+
  enndezi / wasŭkul' emwáana    the nurse / washed the child

    P          Aw              J
  emwaana / wasŭkulwa / kwanndezĭ   the child / was washed / by the nurse
```

```
        P        A      Q+


        P        Aw     J
```
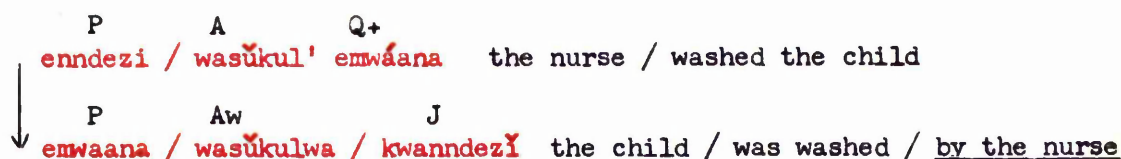
P is represented by the unit labelled J.   The SC of the J head
consists of nominals with kwa- attached.   The English glosses vary,
but in this particular example, kwanndezĭ is glossed as 'by the nurse'.

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:

```
      A          ii         J               ii    X
    dyatoma zzăyakaná / kwawaantu awŏonsó mphe

    it was well known / by all people as well
```
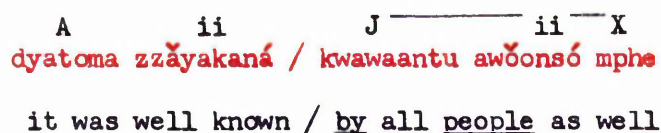
In association with a copula nucleus, J is glossed as 'to...' or
'for...':

```
        J        P       iA        ii
      kwăngudi / eyooyŏ / inthaangw' akyĕese

    to (or, for) the mother / this / is a time of joy

            A        C       J
          dyakala dyantsĭsi / kwayăandi

    it was (a source) of terror / to him (or, for him)
```
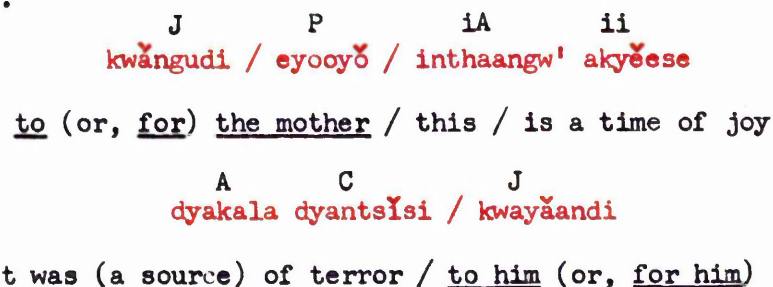
Pre-nucleus J precedes P, if present.   J may be extended by
means of E:

>   J ———— E   P   iA   ii ———— X
>   kwǎse / yǒngudi / ekyookyǒ / illumbu kyakyěese beéni

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:

>   J ——— ii ———— E   ii
>   kwayyitu yǎandi / yokwayakalǎ dyaandi

by her relatives / and by her husband

Phrasing.   J is invariably phrase-initial.⁽¹⁾

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+

>   P   A   B   Q+
>   oammbuta / bǎvaanaang' oáleéko elaú

the elders / used to give the young people the chance

B may be termed the 'indirect object'⁽²⁾.   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-:

<div align="center">

P   A   B   Q-   ii

oammbuta / bǎvaanaang' oáleéke / lau dyǎmphweena

</div>

  the elders / used to give <u>the young people</u> / 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+

oammbuta / bǎvaanaang' onsswá the elders / used to give the permission

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

<div align="center">

P   A   Q+   J

oammbuta / bǎvaanaang' elaú / kwaaleéke

</div>

  the elders / would give the chance / <u>to the young people</u>

  A   Qs   J

wavaana kyǒ / kwamwǎana she gave it / <u>to the child</u>

    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(with Bs)   Q+

babǎvaanaang' elaú they used to give <u>them</u> 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)   A   B   Q+

    bǎvaan' oáleéke onsswá they gave <u>the young people</u> the permission

    P   Aw   Q+

oaleéke / bǎvew' onsswá <u>the young people</u> / were given the permission

(ii)   A   B   Q+

bǎvaan' oáleéke onsswá   they gave <u>the young people</u> the permission

      P   Aw   J

onsswa / wǎvewa / kwaaleéke the permission / was given / <u>to the</u>

<div align="right"><u>young people</u></div>

In this case, B is represented by J.   The two diagrams compared:

(i)   A   B   Q+   (ii) A   B   Q+

    P   Aw   Q+   P   Aw   J

If P is also represented in the second entailment, there are two

J units, one representing P and the other B:

   P   A   B   Q+

oammbuta / bǎvaan' oáleéke onsswá   <u>the elders</u> / gave <u>the young people</u>

<div align="right">the permission</div>

   P   Aw   J1   J2

onsswa / wǎvewa / kwaaleéke / kwaǎmmbuta

the permission / was given / <u>to the young people</u> / <u>by the elders</u>
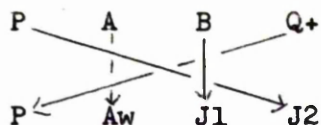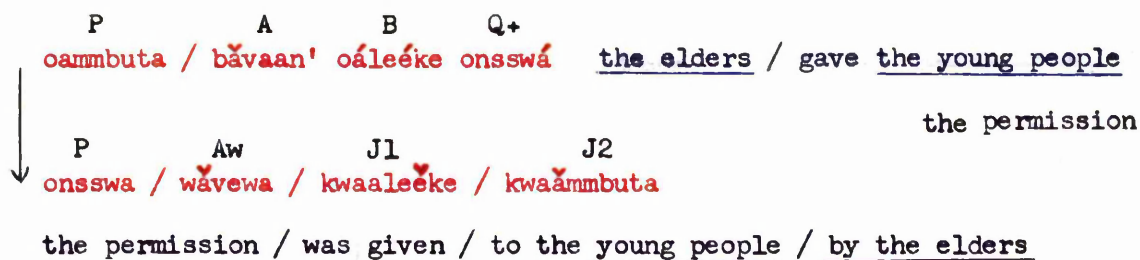
J1 represents B, and J2 represents P; this order appears to be fixed.

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 kǔvvaána I would have given <u>it</u> <u>to you</u>

<div align="center">(lit. I would have <u>it</u> <u>you</u> give)</div>

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-.

<pre>
         A   B   Q-   ii
    băvaanaang' ónlleéke / malongi mayĭingi
</pre>

they used to give the young man / many lessons

<pre>
    [Q-]   ii   Lw   J
   malongi mayĭingi mávewaanga / kwanlleĕke
</pre>

it is many lessons that were given / to the young man

or
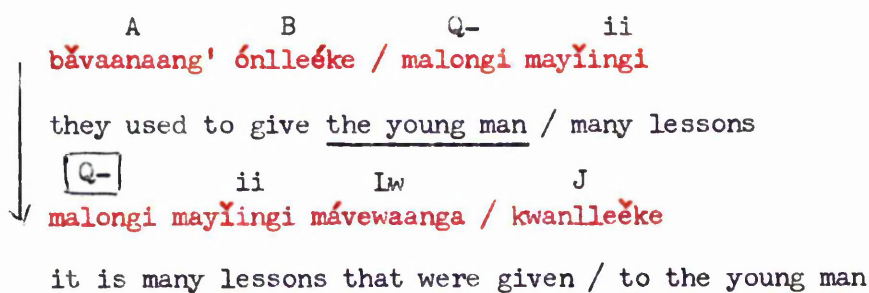
and here again, B is represented by J.

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

<pre>
      A   B   Q-
   bavĕen(e) éngudi llékwa   they have given the mother something

      P*   [Q-]   Kw
   engudi / llĕkwa kaveeno   the mother / it is something she has been given
</pre>

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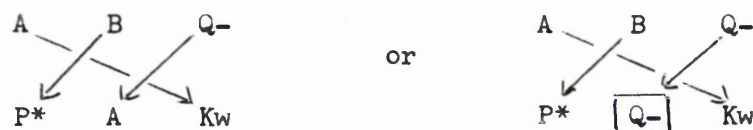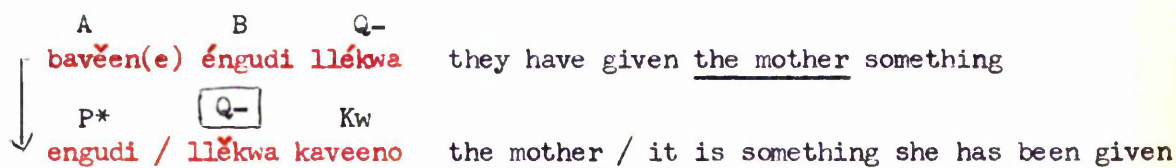
B is here represented by P*, which controls the agreement of Kw.

The radicals capable of taking B are limited. Apart from a very few simplex radicals such as -vaan- 'give' and -soong- 'tell, show', they are radicals with the prepositional (or 'applied') -IL- or causative -IS- extensions. (1)

---

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.

<u>Phrasing</u>.   B is non-initial.   Its presence makes no difference to the phrasing of Q+ and Q-, which are phrased according to the description 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.   <u>Y unit</u>

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.

<div>

A   ii   Q+   ii   L   Y   ii

osinga ssŏlol' émweélo / una uzziĭngilaang' énthumwa zántsi...

you will find the door / that one which lives <u>the emissaries</u> of the country...

(where the emissaries of the country live)

</div>

The Y head here has Initial Vowel : (e)n-thumwa 'emissaries'.

<div>

N   ii   L   ii   Y   X

yeffulŭ / yina yifwĕte kkósoká / ammbuta kăka   (cf. oámmbuta elders)

with a place / that which should sit / <u>elders</u> only

(where elders only should sit)

</div>

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, <u>BSS</u>, 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:

P ——————— L _____ Y   ii
enlloongo myǎsadilaang' ákulu ééto

the remedies which used to use our <u>ancestors</u> (which they used to use)

P ——————— Lw _____ J   ii
enlloongo myǎsadilwaanga / kwaakulu ěeto

the remedies   which were used / <u>by</u> our <u>ancestors</u>

<pre>
P   L   Y
| | |
↓   ↓   ↓
P   Lw   J
</pre>
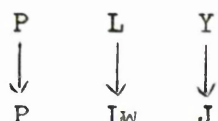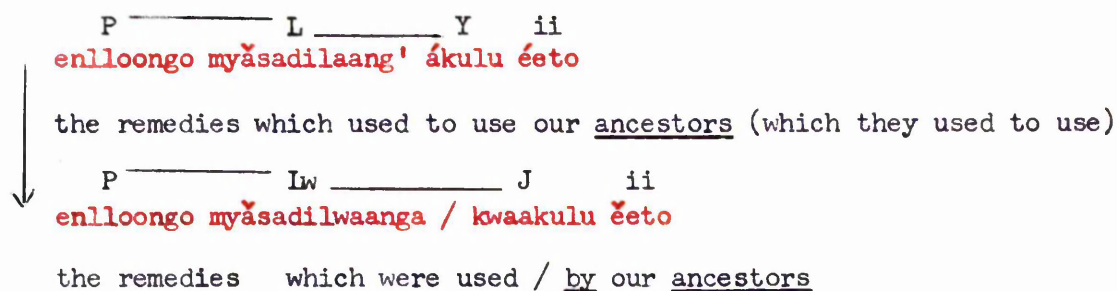
Q is never partnered by J.   Y resembles B in having J as a partner, but B only partnere J in the entailment A : B : Q+ —— P : Aw : J, as shown above under 2.1.13.   Finally, both B and Q may occur as primary units, while Y is always a sub-unit, related to L.

<u>Phrasing</u>.   Y as a single-item unit is always non-initial, whether with or without IV.   Some cases of Y <u>without</u> 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 <u>with</u> 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 ⁽¹⁾

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

A   Q+   R+
wǎvw' éppaau émffunu   he possessed the spade <u>the need</u> (needed the spade)

A   Q-   ii   R+
wavwa mabayǎ mánnene émffunu   he possessed large planks <u>the need</u>

(had need of some large planks)

A   Qs   R+
wakaanga yǒ ekúulu   he bandaged it <u>the leg</u> (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   ii   A   R—͞ X ͟ X
oasaansi akyǎlakázi / bǎvuwaanga / mffunu beěni kíkilu

the nursing attendants / were possessed / <u>need</u> 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 <u>BSS</u>, 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. <u>BSS</u>, 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- extensions, and contoured radicals (1) having termination -k- and similar meaning to neuters:

    A   F+   R+
    oyyangǎleelaang' éttuumbw' ekímpfumu   (-tuumbw- be elected)

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

    A   R+
    yǎtolok' ekúulu   it was broken the leg   (-tolok- get broken)

    P ii   A   ii   R+
    ndzo mosǐ / ilenda ttuuk' ǒlúku   (-tuuk- come from)

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:

    A   Q+   R+
    wǎvw' éppaau émffunu   he possessed the spade the need

    P   Aw   R+
    eppaau / wǎvuw' émffunu 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 p̲assive entailment of this kind.
Both verbals in the examples are passive:

```
     P          Aw        R-
  olusadǐsu / luvwiilu mffŭnu   help / has been possessed ne̲e̲d̲ (is needed)

     P*       ┌───┐
             │ R- │    Kw
  olusadǐsu / mffŭnu luvwiilu   help / i̲t̲ ̲i̲s̲ ̲n̲e̲e̲d̲ that it has been possessed
```
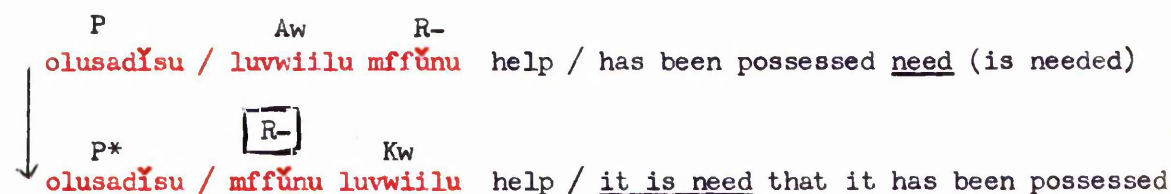
The R/SC contains a very small number of nominals (but no
pronominals), all limited to co-occurrence with particular radicals,
e.g. names of parts of the body co-occurring with -kaang- 'bind,
bandage up' and -tolok- 'get broken'; (e)mffunu 'need' co-occurring
with -vw- 'possess' and -vuw- 'be possessed'.

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

```
        A          Q+
     wakǎang' ekúulu          he bandaged up t̲h̲e̲ ̲l̲e̲g̲

        A      Qs   R+
but  wakaanga yǒ ekúulu       he bandaged it up t̲h̲e̲ ̲l̲e̲g̲
```
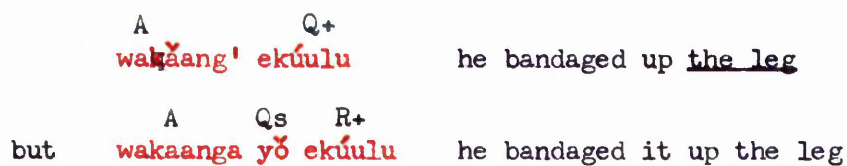
When no other kind of object is present, ekuulu in co-occurrence with
-kaang- fills the Q slot. In co-occurrence with -tolok- however it
fills R without Q, as shown on the previous page. (1)

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:

iA   L‾‾‾‾‾R+
seyǎandi ovwiilu émffunu it is after all she who is possessed <u>the need</u>

(she is needed after all)

A   Q-‾‾‾‾ii‾‾‾K‾‾‾‾R+
bavaangilwa mawǒonsono / mena bǎvwaang' émffunu

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

<u>Phrasing.</u> 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.

(1)
2.1.16. <u>S units</u>

The S (locative) head consists of:

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

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

(2)
ii) pronominals of Classes 16-18:

    ...kuúna   there (Class 17)

    ...váavána at that particular spot (Class 16)

    ...emwáamú in here (Class 18)

---

1.   See Guthrie, <u>BSS</u>, 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:

<pre>
 A   S-   ii
băvutuka / mună vata   they returned / <u>in there the village</u>
</pre>

         (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:

<pre>
 S+   ii   A   S-   ii   iii
ovaffulu ekyăakína, / zekoka / kuna kŏoko kwalúnene
</pre>

<u>at</u> that <u>place</u>, / turn / <u>to there</u> 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:

<pre>
 A   S+
win' ŏmúndzo   he is <u>in the house</u>

      A   Ss
cf. wina mŏ   he is <u>inside</u>
</pre>

S- participates in an entailment of the form A : S $\longrightarrow$ A : K, while S+ does not:

<pre>
 A   S-   (1)
 wina mŭndzo   he is <u>in the house</u>
 ┌─────┐
 │ S- │ K
 └─────┘
 mundzo kenă   <u>it is in the house</u> that he is
</pre>

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.

<pre>
 S-   ii   A   ii   Q+
 vaffulu ekyăakí, / osinga bbăk' ekúumbi <u>at this place</u>, / you will catch the
                                                                              bus
 A   ii   Q+   S-   ii
 osinga bbăk' ekúumbi vaffulú ekyăăki   you will catch the bus <u>at this place</u>
</pre>

---

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:

    K _____ Q+   ii   iii   S+   ii

...nyyiíndulaang' edyaámbu dyángutukíli amuúntu omúndzǿ eyááyi

...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:

    S-   ii   iii   iv   P   A

kummbaninu yalulongǒko lwáandi lóólo, / enlleǒke / wǎsuunzulwaanga

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:

    P* _____ L   [S-]   K

ezi zikkoǒkolaanga -- / kumaaki zittǔukaánga

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.

2.1.17.   <u>V units</u>⁽¹⁾

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:

...éwuúnu   today (IN of Class 7)

ezaak' ĕnthaangwa   some times (DN and IN of Class 10)

ttuuk' ĕnthaangwa   to come from the time, since the time (INV of Class 15,

                              followed by F+ unit consisting of a Class 9 IN)

mullumbu yŏóyo   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:

ewaaŭ   now, thus (Class 14)

...wuúna   thus, in that way (Class 14)

vaava   then, now, at the time (Class 16)

muna mǎsika   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
ewaaŭ / isinga vvŏva   now / I'm going to say...

A   X   V+
dyassivi kĭkilu éwuúnu   it is (a matter) of wonder indeed today

---

1.   Based on the V unit of Guthrie; see <u>BSS</u>, 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
  tuxyatĭk' éssalu omásika mááma   we shall begin the work this <u>afternoon</u>

       A   V+   Q+
  nutadi ewǎáu eyímpfwanimpfwani   look <u>now</u> at the pi̢ctures

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

     A   V-   ii   ii
  wǎsala / lumingu lwamvviĭmba lwákkaka   A   V-

  he worked / <u>a</u> whole <u>week</u> more

     ⌐V-⌐   ii   iii   K   ⌐V-⌐ K
  lumingu lwamvviĭmba lwákkaka kásala

  <u>it is a</u> whole <u>week</u> more that he worked
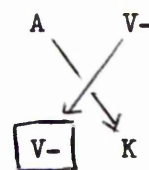
Both pre- and post-nucleus V, of both divisions, take part in an entailment which involves switching the position of the unit.   This is shown below for pre-nucleus V- :

    V-   ii   A   (1)
  nkkumbu myayĭingi / bǎteezaanga   many <u>times</u> / they used to try

      A   V-   ii
  bǎteezaanga / nkkumbu myayĭingi   they used to try / many <u>times</u>

---

1.   Compare   ⌐V-⌐   ii   K
                     nkkumbu myayĭingi bǎteezaanga   (no phrase boundary)

                     <u>it is</u> many <u>times</u> that they used to try

which is the A : K entailment of <u>post</u>-nucleus V-.

Pre-nucleus V may precede or follow P:

V-   ii   iii   iv   P   A
muna ttaandu kyaǎkulu éeto, / ekyalakǎzi / kyasǎanswaanga
                                                              (1)
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 yiměne kkayázyaana /.../ bǎtuumbaanga...

    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'.

2.1.18.   T unit (1)

The T unit to some extent resembles S, in that the SC of the
T head consists of independent nominals with the Class 18 prefxi 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, bacause of,
with, for, from, out of'.

    A   ii   X   T ———————— Q+   ii
    bafwete zziizila kǎka mulluúngis' engóonde zóózo

    they just have to be patient in fulfilling these months

    A   E ——— Qs   T   ii
    wǎsaanzula / yellaambula wǒ múppaau kyáandi

    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;
theordering of units in a negative structure is not so rigid as in BSS Kongo.

<pre>
   A   T   ii   iii   K
 nthoondele / muna lŭsadísu / luna umphĕene
</pre>

I have thanked / <u>in there</u> the help / that which you have given me

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

<pre>
   A   Q-   T   ii
 bavaangaanga nlloŏngo / muna mătiiti
</pre>

they used to make remedies / <u>in there</u> shrubs (from srhubs, out of shrubs)

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

<pre>
   T ─── ii ─── X   A   Q+
 muna dyăádi ozeévo -- / waboong' ónkkele
</pre>

in there this therefore -- / he took the gun

 (because of this therefore)

<pre>
   T   ii ─── Q+   P   A
 mună vvaang' edyóódyo, / onlleĕke / wayĕndaanga
</pre>

<u>in there</u> 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:

<pre>
   A   X   S-   ii   iii   T   ii ─── Q+
 bakutakyaanaangă mphe / muna nttaanda myamăvata / muna ssakăn' entsáka
</pre>

they used to gather also / in (there) open spaces of the villages / <u>in there</u>

   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:

<pre>
   A   T ─── Q
 dyămffunu mússungamená vo   it is of necessity in remembering(=to remember)
</pre>

         that

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

P ——— K ——— Qs — F   [iT]   Q-   ii

ekkuma kazolele dyǒ zzoka / imŭbbaka / nlluka wǎnnene

the reason he wanted to dig (into) it / <u>is to obtain</u> / a big cave
([iT])

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-coourrence

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 <u>plus</u> 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
(1)
with a verbal copula nucleus :

   A   T
wina mǔddya   he is <u>in eating</u>   A   T

[T]   K   (2)   [T]   K
muddya kenǎ   <u>it is in eating</u> that he is

---
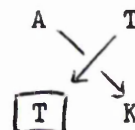
1.   A copula nucleus is one consisting of a verbal containing one of

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:

[T]   K   Q+
muddya běn' ómmbizi   it is in eating that they are <u>the meat</u>

[T]   Qs K
but   muddya yǒ bená   it is in eating <u>it</u> 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.

<u>Phrasing</u>.   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 substituion 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.

(1)
2.1.19.   <u>H unit</u>

The label H is given to a unit whose head consists of a Class 15

INV (independent nomino-verbal), with Initial Vowel attached.   ⁺he

H/SC therefore contains   . items found also in the F+/SC, but the set

is more restricted.   An example is:

<div align="center">

H ——— S-   iA   ii
evvutuká kúvitu, / inkkw'akĭmbvumina

</div>

<u>to return</u> 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, <u>BSS</u>, p. 29, but has not quite

the same meaning here.   P* in <u>BSS</u> 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' edyǒódyo, / Ntsaukulǔsu / wazola vvoǒnges' éndzo 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 [1] .   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
avǒ / wamona meengǎ,/ mooyǒ 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	nkhete	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+)
wǎmona vó -- / yǎtolok' ekúulu  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   )
wǎkituka / sesuku dyǎandi dyánndeéka
```

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   )
sě / kalwaaka  it is then / he may arrive (he will then ar rive)
```

sě 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   )                         iK
sě / kalwaaka  (Tense 8)        sekallwaǎka  (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:

```
                                 iK
                            sekalwaǎka   (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. avǒ 'if'.   There are also
head
restrictions on co-occurrence; ně 'as, like' is invariably followed by
a stabilized 'nucleus':

    (G: iA   L ————————— Y   ii)
    ně / iwuuná wávoveleengé / nkhakɨ zeeto

    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   ii   E (G :   A   ii)
        ingudi ǎnkhazi / yovǒ / yyitu yǎkkaka

    it is the maternal uncle / and that (= or) / it is some other relation
                                           G
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   ii   iii   (G: |iK|)   A   ii
    emwaan' ǎmpfumu amuúntu, / avǒ / sekǎddya, / kafwete kkalǎ

    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   )   P   A   ii
    avǒ / dyoodyǒ / dibwɨidi, / onwwuti / watoma mmeěngwaanga ...

    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   R+   (G: iA   L————Q(G:A))
yǎfuungaang' omakasí ..../ avǒ / semwǎan' oyambwíilu / kadila

they used to get angry... / <u>if</u> / <u>it is now the child who has been permitted</u> /

<div align="right"><u>he may cry</u></div>

       (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   C(G: iA   ii)
wǎkalaanga vó / ingudi ǎnkhazi   he was <u>that</u> / <u>he is the maternal uncle</u>

    A   Q(G: A   R+)
wǎmona vó — / yǎtolok' ekúulu   he saw <u>that</u> / <u>it was broken the leg</u>

G funtioning 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 subsidiary labelling.   G as Q displays some affinities with Q+, in that it may be represented by an object substitute,of Class 5:

    A   Qs
wamona dyǒ   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 $\boxed{iK}$:

    A   Q(G:A   Q-)
ozǒlele / ntsuumba fǐseko   she wants / I may buy a little flour

P(G: $\boxed{Q_7}$ K) $\boxed{iK}$ (she wants me to buy...)
fǐseko ntsuumba / ǐkazolele   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 $\boxed{Q-}$: K.   This gives the labelling a complex appearance.)

It may be added that Zombo displays a marked partiality for intrictae 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.

<u>Phrasing</u>.   G units are particularly interesting in respect of their

phrasing.

The <u>internal</u> phrasing of an embedded sentence is precisely as for

a corresponding non-embedded sentence:

    E   Q(G :   P*   ii   A   K   ii)
    yozzaayǎ kana / onsseedya ndyǒóyo / nǎni kafwéte llúkwa?

and to know whether / <u>this baby</u> / <u>it is who that he should be named after?</u>

    (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. avǒ and ně.

A G head functioning simultaneously as A is also phrase-initial, e.g.

sě and ngǎ.

Most interesting is the phrasing of G heads simultaneously filling

Q or C.   Compare the following:

    A   Q(G :   A   R+)
    wǎmona vó -- / yǎtolok' ekúulu he saw <u>that</u> -- / it was broken the leg

    A   Q(G:A   Q+   )   structure
    yambula / twafiimp' ěmphangaméno permit / <u>(that) we may examine</u> the

The G head vo, filling Q in relation to the nucleus of the main sentence,

is non-initial; the G head twafiimp(a) likewise filling Q, <u>but also serving</u>

<u>as nucleus within G</u>, is phrase-initial, i.e., phrased <u>as a nucleus</u>.   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

<u>internal</u> 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)
wăkalaanga vó / ingudi ănkhazi he was <u>that</u> / he is the maternal uncle

     A   C(G:iA   ii   iii)
wăkituka / sesuku dyăandi dyánndeéka it became / <u>it is now</u> his bed<u>room</u>

The G head **vo** filling C is phrased with the preceding item; the G head
sesuku, likewise filling C, <u>but also functioning as nucleus of the G unit,</u>
is phraséd as a nucleus.   Again, the distribution is clear; G filling C
is non-initial, <u>unless</u> 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 <u>within</u> 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 <u>nucleus group</u>, and labelled with Greek Alpha:

<div align="center">

⌐————————————— . ∝ —————————————⌐

meenga / imevvaanaang' ĕmwaánda / kwamoŏyo

blood / is what gives the spirit / to the life (1)

</div>

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 :

<div align="center">

⌐————————————— ∝1 —————————————⌐ β ⌐————————————— ∝2————

meenga / imevvaanaang' ĕmwaánda / kwamoŏyo / yĕ / mooyo / uvvaanaang' ĕmwaánda

blood / is what gives the spirit / to the life / <u>and</u> / life / gives the spirit

—————⌐

kwamoŏyo

to the blood

(2)

</div>

Beta elements also serve to join initiating to non-initiating sentences, and non-initǎiting sentence to each other:

<div align="center">

⌐————————— . ∝ —————————⌐ β ⌐—————— ∝——————⌐

Edyoodyŏ / ikkwiikilaanga dyŏ mphe.   Kaănsi, / edyaădi / idyaămbu.

This / I believe it too.   <u>But,</u> / this is the point.

</div>

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:

<div align="center">

P   iA   Q+   J

meenga / imevvaanaang' ĕmwaánda / kwamoŏyo

</div>

(iA is ⌐iL⌐).

The substitution class of Beta consists of particles, of which the commonest are:

yĕ and   iboosÍ and then   kaănsi but

Beta may also contain X:

β⁻ₓ   β —— x
yĕ mphe and also   iboosÍ mphe and then also

              β —— x
        kaansi ŭtu 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.
Suhc 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:

      iA   ii   iii‾‾‾‾‾ K
     ituuku̯ dyámphovélo / yina tubbŏokelaánga

it is the origin of the word / that one which we call

  T‾‾‾‾‾‾ Q-   ii   iii ___ L‾‾C(G: A   )
...muvvaáva ntsaása zamaámbu / mena menǎanga vó / mamphii̯mpita

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:

iA   ii iii
imaǎmbu / mau moolĕ they are the questions / they the two

               (they are the two questions)

    S   ii   iii   iv   v vi
    muna tteezo kyangŏonde zóózo / zaǔ vwa

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 presecne 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. <u>Summary</u>

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. <u>Patterns of syntax-phrasing correlations</u>

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. ^{T}he 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 exponence of internal
relationships, in certain well-defined cases, takes precedence over
that of exte al 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
phrase-initial $^{(1)}$.

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.

Unit label	Position	Phrasing	Reference	Page
A		initial	2.1.1.	59
B	post-nucleus	non-initial	2.1.13.	93
C	post-nucleus	initial/non-initial*	2.1.8.	82
E	post-nucleus	initial	2.1.6.	72
F	post-nucleus	non-initial	2.1.10.	86
G	varies	initial/non-initial	2.1.20.	112
H	pre-nucleus	initial	2.1.19.	111
J	varies	initial	2.1.12.	92
K	post-nucleus	non-initial	2.1.3.	63
L	post-nucleus	non-initial	2.1.5.	70
M	post-nucleus	non-initial	2.1.9.	85
N	post-nucleus	initial	2.1.11.	89
Na	post-nucleus	non-initial	2.1.11.1.	91
P	varies	initial	2.1.4.	66
Pa	precedes K	non-initial	2.1.4.1.	69
Q+(i), Qs	post-nucleus	non-initial		
Q+(ii)	unlinked post-			
	nucleus	initial		
Q-(i)	post-nucleus	initial/non-initial*		
Q-(ii)	unlinked post-			
	nucleus	initial	2.1.7.	76

Table I : Phrasing characteristics of syntactic units / ctd.

Unit label	Position	Phrasing	Reference	Page
R+	post-nucleus	non-initial		
R-	post-nucleus	initial/non-initial*	2.1.15.	99
S+	pre-nucleus	initial		
	post-nucleus	non-initial		
S-	pre-nucleus	initial		
	post-nucleus	initial/non-initial*	2.1.16.	102
T	pre-nucleus	initial		
	post-nucleus	initial/non-initial*	2.1.18.	108
V+	pre-nucleus	initial		
	post-nucleus	non-initial		
V-	pre-nucleus	initial		
	post-nucleus	initial/non-initial*	2.1.17.	105
X	pre-nucleus	initial		
	post-nucleus	non-initial	2.1.2.	62
Xa	post-nucleus	non-initial	2.1.2.1.	63
Y	after L	initial/non-initial*	2.1.14.	97

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]

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].

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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 <u>higher</u> than
any succeeding unmarked pitch <u>within the same phrase</u>. The unmarked
pitch is characterized by being <u>lower</u> than any marked pitch preceding
it <u>within the same phrase</u>. 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 <u>phrase</u> in which they occur,
   not inrelation to the rest of the sentence, unless this happens to
   consist of one phrase;

b) marked pitch is relatively higher than unmarked pitch <u>after</u> it,
   though not necessarily higher than preceding unmarked pitch;

c) unmarked pitch is relatively lower than a marked pitch <u>before</u> it,
   but not nesessarily 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):

    bawǎan' éffulu   they found the flower (éf-fulu flower)
    bawǎan' effulú   they found the place   (ef-fulú place)

éf-fulu, with H on the vowel preceding the stem, and ef-fulú, 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:

    bawǎan' éffulu   they found the flower (éf-fulu flower)
    bawǎan' évata   they found the village (é-vata   village)

The description 'H on pre-stem vowel' applies to both éf-fulu 'the flower' and é-vata 'the village', and they are accordingly said to belong to the same TC.

Similarly:

bawǎan' effulú   they found <u>the place</u>   (ef-fulú place)

bawǎan' ebayá   they found <u>the plank</u>   (e-bayá   plank)

Both ef-fulú 'place' and e-bayá '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 éf-fulu/é-vata pair.

These examples are all of -CVCV stems, with prefix C- or zero.[1]
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:

bawǎan 'omávata   they found <u>the villages</u>   (omá-vata villages)

The description 'H on pre-stem vowel' applies equally to omá-vata
'villages' and to é-vata 'village', although one has CV- and the
other zero prefix.   They can thus be subsumed into the same TC.

Compare also:

bawǎan' omabayá   they found <u>the planks</u>   (oma-bayá planks)

The description 'H on second stem vowel' applies to oma-bayá 'planks'
as well as to e-bayá 'plank', and ef-fulú '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 <u>without</u> the Initial Vowel e- or o-.
éf-fulu has a prefix of C- shape, é-vata has zero prefix, omá-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:

> (ó)l-la   to be high, long, deep (Class 15)
> nn-dá   height, length, depth   (Class 9)[1]

These are assumed cognates, but are not in the same TC. ól-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+
> bawǎan' éffulu   they found the flower
>
> A   ii   Q-
> osinga wwaǎna ffúlu   he will find a flower

éf-fulu (Q+) and f-fúlu (Q-) are distinct tonally as well as

morphologically.   Compare however:

> A   Q+
> bawǎan' effulú   they found the place
>
> A   ii   Q-
> osinga wwaǎna ffulú he will find a place

There is no tonal distinction between ef-fulú (Q+) and f-fulú (Q-),

although there is morphological difference.   To gain a complete

picture, however, both nominals must be examined in both contexts.

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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.

-CV stems	Q+ variant	Q- variant	Nominal class
(i) father	é-se	sé	5
fathers	omá-se	ma-sé	6
(ii), colour,			
race	es-sé	s-sé	14

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 dsitribution 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.

-CVCVCV stems	Q+ variant	Q- variant	Nominal class
i) helper, assistant	óns-sadísi/...isí	ns-sádisí/...ísi	1, 3
birth	olú-wutúku/...ukú	lu-wútukú/...úku	11
ii) white ant	ént-selele	nt-sélele	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 resemlbances. 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 -CVCVCV stems.

-CVCVCVCV stems	Q+ variant	Q- variant	Nominal class
i) structure	ém-phangaméno	m-phángamenó	9
meeting	olú-kutakánu	lu-kútakanú	11
	(all have reversed final free variants)		
ii) spark	én-thimbukila	n-thímbukila	9
iii) pregnancy	emb-vilámeno	mb-vilámeno	9
people who correct	oa-sikídisi	a-sikídisi	2

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 —CVCVCVCV 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'.

	Q+ variant	Q- variant	TC	Nominal class
-V stem				
<u>leopard</u>	eng-ó	ng-ó	II	9
cf. colour	es-sé	s-sé	II	14
-VCV stems				
<u>mother</u>	éng-udi	ng-údi	I	9
cf. village	é-vata	váta	I	5
<u>vicinity</u>	enj-énga	nj-énga	II	9
cf. truth	el-lúdi	l-lúdi	II	7
<u>coming</u>	enj-izá	nj-izá	III	9
cf. plank	e-ɓayá	ɓayá	III	5
-VCVCV stem				
<u>way of going</u>	enj-endélo	nj-endélo	III	9
cf. pupil	onl-longóki	nl-longóki	III	1,3
-VCVCVCV stem				
<u>way of making go</u>	enj-endéselo	nj-endéselo	III	9
cf. pregnancy	emb-vilámeno	mb-vilámeno	III	9

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 fouhd present problems.

-VCV stems	Q+ variant	Q- variant	Nominal class
face	olóse	losé	11 (prefix *lu-)
fire	etíya	tiyá	13 (prefix *tu-)

If for the purposes of assignment to a TC the stem is taken to be the final -CV, these can be assigned to TCI:

oló-se cf. omá-se fathers (Q+); lo-sé cf. ma-sé (Q-)

Any other analysis would necessitate setting up a new TC.

-VCVCV stems	Q+ variant	Q- variant	Nominal class
sweat	ekyúfúta	kyúfutá	7 (prefix *ki-)
truth	ekyéléka	kyéleká	7 (prefix *ki-)

(reversed final variants in all cases)[1]

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.

-VCVCVCV stem	Q+ variant	Q- variant	Nominal class
nursing mother	omwálakázi	mwálakazí	1, 3

(reversed final free variants)

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.s

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-óonde 'month, moon'.

Patterns are numerous for stems of -(C)VVCV shape, and they will be taken a few at a time.

	Q+ variant	Q- variant	Nominal class
i) sp. bean	é-deezo	déezo	5
pl.	omá-deezo	ma-déezo	6
action	é-vaangu	váangu	5
pl.	omá-vaangu	ma-váangu	6

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. ént-selele/ nt-sélele.

ii) woman	ónk-keénto	nk-kéentó	1
pl.	oá-keénto	a-kéentó	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	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.

	Q+ variant	Q- variant	Nominal class
iv) knife	emm-béele	mm-beéle	9
God, god	ond-záambi	nd-zaámbi	9
moon, month	eng-óonde	ng-oónde	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, <u>unless</u> the vowel length is to be intepreted 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	e-leénge	leénge	5
pl.	oma-leénge	ma-leénge	6
one who seeks	omv-vaávi	mv-vaávi	1
husband, borrower	ons-soó(m)pi	ns-soó(m)pi	1

All these can be described as displaying the 'second stem H' typical of TCII, <u>if</u> the vowel length is analyzed as 'double', and the stem regarded as a variant of -CVCVCV, with zero C_2.

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 evantually sub-divided for longer

stems.

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 TCIz on the analogy of ént-selele. One could even analyze the vowel of é-deezo as long rather than double, and include it as a long vowel variant of -CVCV, namely -CV:CV.

In some cases a long vowel analysis is not only unnecessary but positively disadvantageous : e-leénge/leénge 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 anlysis of vowel length, which again is arbitrary.

-CVVCVCV stems	Q+ variant	Q- variant	Nominal class
i) similarity	éb-beetéla	b-béetelá	7
presentation	olú-suunzúlu	lu-súunzulú	11
	(reversed final variants)		
ii) difference	ént-swaaswani	nt-swáaswani	9
victory	ént-suundidi	nt-súundidi	9
iii) peace	olu-vuúvamu	lu-vuúvamu	11
iv) marriage	ent-soó(m)pelo	nt-soo(m)pélo	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
-CVCVCVCV stems with zero C_2, or as long vowel variants of -CVCVCV
(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 elngth.

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 C_2, 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 -CVCVCV, 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:CVCV stems of TCIII, instead of on V_2 as in the -CVCVCV 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-soó(m)pi?   It seems absurd to regard
both this and ent-soó(m)pelo as -CVCVCV stems.   But if ons-soó(m)pi
is itself classified as -CV:CV, then a special rule has to be set up
for it.   The patterns are ons-soó(m)pi(Q+) and ns-soó(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 -CVCV.'

The long vowel analysis is certainly a two-edged weapon.   It is to
some extent useful for emm-béele and ent-soó(m)pelo, not really required
for TCs Iy and Iz, and a handicap in TCIII (apart from ent-soó(m)pelo).
Without it, however, one is faced with two new TCs, in addition tothe
original three : one for emm-béele(IV), and the other for ent-soó(m)pelo (V).

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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 nsal 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:

> end-záambi   God   é-vaangu   action
>
> ént-suundidi   victory

and examples could be multiplied amny 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:

(1)

> ent-soópelo (var. ent-soómpelo)   marriage
>
> emm-béele   knife   omá-deezo   sp. beans

and in the latter two cases, not even derivation from NC can be supposed for
the consonant.   For emm-béele in particular it is excluded, since *nl
never occurs as C_2 or C_3.

Furthermore, not all vowel length before NC requires the long vowel
analysis:

> ónk-keénto   woman, wife

excludes this analysis, since the two high tones proclaim it a member of
TCIy, never found for stems shorter than –CVCVCV.

---

1.   NC tends to be simplified to C, when C is a voiceless consonant.
There appear to be restrictions on this; all examples so far are from
TCIII, although the pair of alternatives énj-yaantíka/énj-yatíka
'beginning' (Class 9) is suggestive of a similar reduction in TCIy 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:

él-lumbu day   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 adopiton 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:

muúntu person (Class 1)

waántu people (Class 2)

suggests stem -ntu, with vowel length in the prefix.   Yet others suggest neither analysis positively:

kiínzu pot (Class 7)

yiínzu pots (Class 8)

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]

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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. **kiínzu** for example is best divided as **kií-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).

CV-VCV	Q+ variant	Q- variant	Class	Typical prefix
trade goods	omá-ana	ma-ána	6	ma-
leg, foot	okú-ulu	ku-úlu	15(or 17)	ku-
pl.	omá-alu	ma-álu	6	ma-
enclosure	olú-umbu	lu-úmbu	11	lu-
arm, hand	okó-oko	ko-óko	15 (or 17)	ku-
pl.	omó-oko	mo-óko	6	ma-
child	omwá-ana	mwa-ána	1	mu-*
pl.	owá-ana	wa-ána	2	wa-*

* V stem prefix , differing in shape from C stem prefix.

These can be assigned to TCI, if the cut is made as shown.

CVV-CV	Q+ variant	Q- variant	Class	Typical prefix
pot	ekií-nzu	kii-nzú	7	ki-*
pl.	evií-nzu	yii-nzú	8	yi-*
person	omuí-ntu	muu-ntú	1	mu-*
pl.	owaá-ntu	waa-ntú	2	wa-*
blood	emeé-nga	mee-ngá	6	ma-
life	omoó-yo	moo-yó	3	mu-*

* 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).

CVV-CVCV	Q+ variant	Q- variant	Class	Typical prefix
males, men	omaá-kala	maa-kála	6	ma-
sesame	owaá-ngila	waa-ngíla	14	u-*

* 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)pelo/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].

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1. CB *-ntù. Professor Guthrie, personal communication.

c) <u>vowel length at other points</u>

No further problems are created by nominals displaying vowel
length at points other than after C_1 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.

-CVCVVCV stems	Q+ variant	Q- variant	Nominal class	TC
farewell	omá-kanaánu	ma-kánaanú	6	Iy
difficulty,problem	olú-tokaánu	lu-tókaanú	11	Iy
	(reversed final variants)			
a seventy	olu-sambwáadi	lu-sambwáadi	11	III
sp. tree	ont-tontóozi	nt-tontóozi	3	III
-CVVCVVCV stems				
mutual understanding	éng-wiizaani	ng-wíizaani	9	Iz
difference (1)	ént-swaaswaani	nt-swáaswaani	9	Iz
-CVCVCVVCV stems				
distress	olú-tokaneésu	lu-tókaneesú	11	Iy
mutual trust	én-kwikazyaána	n-khwíkazyaaná	9	Iy
	(reversed final variants)			
encouragement	olu-kasákeeso	lu-kasákeeso	11	III

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-swaaswani.

—

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. [1]

The immediately relevant facts to emerge from the study of nominals   /e so far are:

i) the Q+ and Q- patterns are sometimes different

ii) 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.

Tone-class	Q+/Q- patterns	Examples	
I, Iy, Iz	different	énd-zo / nd-zó	house
		émm-buta / mm-búta	adult, elder
		omuú-ntu / muu-ntú	person
		ónk-keénto / nk-kéentó	woman, wife
		ómf-fwiidi / mf-fwíidi	bereaved person, widow(er)
II	same	el-lúdi / l-lúdi	truth
III	same	enn-dokí / nn-dokí	witch
		e-yakála / yakála	man, husband
IV	different	ond-záambi / nd-zaámbi	God
		enn-dúumba / nn-duúmba	maiden, girl
V	different	eng-aángula / ng-aangúla	smith

1.   Historically probably a conflation of two stems.   Cf. Common Bantu *-jìdà and *-jìdá.   Professor Guthrie, personal communication.

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 tonatl 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.

	Q+/Q-	Unaugmented cognate		TC
houses	(e)zí-nd-zo	énd-zo / nd-zó	house/s	I
age	(e)kí-mm-buta	émm-buta / mm-búta	adult, elder	I
human nature	(e)ki-muúntu	omuú-ntu / muu-ntu	person	I
wifehood	(e)kí-nk-keénto	ónk-keénto / nk-kéentó	woman,wife	Iy
bereavement	(e)kí-mf-fwiidi	ómf-fwiidi / mf-fwíidi	widow(er)	Iz
witchcraft	(e)ki-nn-dokí	enn-dokí / nn-dokí	witch	III
manhood	(e)ki-yakála	e-yakála / yakála	man, male	III
divinity	(o)u-nd-záambi	ond-záambi / nd-zaámbi	God	IV
smithery	(e)ki-ng-aángula	eng-aángula / ng-aangúla	smith	V

It will be seen that, where the unaugmneted 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-yyá	whispering	(e)ki-mp-fundúundu
milk	(e)kí-mb-vumina	finger-snapping	(e)kí-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 inludes the extra independent prefixes (EIPs) of
Classes 16-19, and the dependent possessive prefixes:

(o)vá-nd-za on (= in) the world; (o)va- Class 16 EIP,

(é)nd-za world, Class 9.

(e)fi-njy-iíndu (a) faint idea(s); (e)fi- Class 19 diminutive EIP,

(e)nj-yiíndu thought/s, Class 9/10. es/

(e)dyá-mm-bote a good (thing); (e)dya- Class 5 possessive
(1)
prefix, mm-bote 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+.

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1. mm-bote never appears without possessive prefix attached. It has
a prefix of Class 9 shape, but this never controols 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+	efinjyiíndu	Q- finjyiíndu	faint idea/s
S+	omunjyiíndu	S- munjyiíndu	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 undifferetiated variant for the pre-prefixed nominal ∤n
is similar to that of the Q+ variant of the unpre-prefixed corresponding
nominal.   The latter are given for comparison.

	Q+/S+/Q-/S-	Unpre-prefixed		TC
in the world	(o)vá-nd-za	énd-za / nd-zá	world	I
of newness	(e)kyá-m-pha cf.	" "	"	"
of manyness	(o)a-yí-ingi cf.	omwá-ana / mwa-ána	child	I
of goodness	(e)dyá-mm-bote cf.	émm-buta / mm-búta	adult	I
in the school	(o)mú-sikoóla	é-sikoóla / síkoolá	school	Iy
of length	(e)kya-nn-dá cf.	es-sé / s-sé	colour	II
of truth	(e)dva-l-lúdi	el-lúdi / l-lúdi	truth	II
faint idea/s	(e)fi-nj-yiíndu	enj-yiíndu / nj-yiíndu idea/s		III
on the island	(o)va-s-saánga	es-saánga / s-saánga island		III
of a man	(e)dya-yakála	e-yakála / yakála	man	III
to the moon	(o)ku-ng-óonde	eng-óonde / ng-oónde moon		IV
in marriage	(o)mu-nt-soópelo	ent-soópelo / nt-soopélo marriage		V

Where the unpre-prefixed nominal is of TCs I, IV or V -- i.e., has
different patterns for Q+ and Q- -- the pre-prefixed pattern matches that of Q+.

The pre-prefixed 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-váanga '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-soómpa /s-soómpa, 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-soómpelo / nt-soompélo, 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.

	F+/Q+	F-/Q-	TC
-C(V) radical			
to die	óf-fwa	f-fwá	I
cf. father	é-se	sé	I
-CVC- radicals			
to see	óm-mona	m-móna	I
cf. flower	éf-fulu	f-fúlu	I
to laugh	os-sevá	s-sevá	III
cf. place	ef-fulú	f-fulú	III
-CVVC- radicals (i)			
to do, **make**	óv-vaanga	v-váanga	I?, Iz?
cf. creature	év-vaangu	v-váangu	I?, Iz?
to borrow	os-soó(m)pa	s-soó(m)pa	III
cf. borrower	ons-soó(m)pi	ns-soó(m)pi	III
-CVVC- radicals (ii)			
to come from	ót-tuúka	t-túuká	Iy (reversed final
cf. origin	é-tuúku	túukú	Iy variants)
to seek	ov-vaáva	v-vaáva	III
cf. hope	ev-vuúvu	v-vuúvu	III
-CVCVC- radicals			
to sit	ók-kesóka	k-kósoká	Iy
cf. help	olú-sadísu	lu-sádisú	Iy
to learn	ol-longóka	l-longóka	III
cf, pupils	oa-longóki	a-longóki	III

Iy has reversed final variants throughout.

	F+/Q+	F-/Q-	TC
_CVVCVC- radicals (i)			
to wait for	óv-viingíla	v-víingilá	Iy
cf. presentation (1)	olú-suunzúlu	lu-súunzulú	Iy
to replace	ov-viíngila	v-viíngila	III
cf. marriage	ent-soómpelo	nt-soompélo	V
_CVVCVC- radicals (ii)			
to call, name	ób-bookéla	b-bóokelá	Iy
cf. similarity	éb-beetéla	b-béetelá	Iy
to be needed for	ov-vaávilwa	v-vaávilwa	III
cf. peace	olu-vuúvamu	lu-vuúvamu	III
_CVCVCVC- radicals			
to be possible	óv-vangakána	v-vángakaná	Iy
cf. structure	ém-phangaméno	m-phángamenó	Iy
to forget	ov-vilákana	v-vilákana	III
cf. pregnancy	emb-vilámeno	mb-vilámeno	III

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 tw o 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,

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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' -CV̄C- radicals of TCIII are as for F+ variants of the corresponding TCIy stems.   TCI and its divisions have patterns as for F+ of the stems without infix.

	with infix	without infix	TC
to hear them	(o)ku-á-wa	ów-wa /w-wá	I
to see them	(o)kú-á-mona	óm-mona/m-móna	I
to laugh at them	(o)ku-á-sevá	os-sevá/s-sevá	III
to guard them	(o)ku-á-keenga	ók-keenga/k-kéenga	I?,Iz?
to marry them(1)	(o)ku-á-soómpa	os-soómpa/s-soómpa	III
to leave them	(o)ku-á-siísa	ós-siísa/s-síisá	Iy
to seek them	(o)ku-á-vaáva	ov-vaáva/v-vaáva	III
to help them	(o)ku-á-sadísa	ós-sadísa/s-sádisá	Iy
to visit them	(o)ku-á-kiyíla	ok-kiyíla/k-kiyíla	III
to wait for them	(o)ku-á-viingíla	óv-viingíla/v-víingilá	Iy
to take their place	(o)ku-á-viingíla	ov-viíngila/v-viíngila	III
to call them	(o)ku-á-bookéla	ób-bookéla/b-bóokelá	Iy
to arrive for them	(o)ku-á-lwaakíla	ol-lwaákila/l-lwaákila	III
to remember them	(o)ku-á-sungaména	ós-sungaména/s-súngamená	Iy
to forget them	(o)ku-á-vilakána	ov-vilákana/v-vilákana	III

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.

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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 **éf-fulu/f-fúlu**   but   **(e)f-fulú** place

smith **eng-aángul/ng-aangúla**   **(o)mú-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.

nominal class	1/1	1/2	1/3	2/1	2/2	2/3
with IV	o-móno	o-ngéye	o-yáandi	o-yéeto	o-yéeno	o-yáau
without IV	móno	ngéye	yaándi	yeéto	yeéno	yaáu
	I	you(sg)	he/she	we, us	you(pl)	they(people)

nominal class	5	6	7	8	14	16
with IV	e-dyáau	o-máau	e-kyáau	e-yáau	o-wáau	o-váau
without IV	dyaáu	maáu	kyaáu	yaáu	waáu	vaáu
	it	they	it	they	thus	there, then

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.

nominal class	1	2	3	14	17
with IV	o-óna/e-ndyóna	e-éna/e-ána	e-dína	o-wúna	o-kúna
	that(person)	those(people)	that (matter)	thus, how	(to) there

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
	oóna/ndyoóna	eéna/aána	diína	wuúna	kuúna
	that (person)	those	that	that	(to) there
		(people)		(manner)	

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-óyo/o-óyu	o-ówa	e-édi	o-ówu	o-óku
without IV	oyó / oyú	owá	edí	owú	okú
	this(person)	these	this	this	(to) here
		(people)	(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 -o throughout.   All examples are from fixed
phrases, and none occurs after peak.   An instance for illustration:

        Ukǒ 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-ndyóoyó	e-wóowó	e-dyóodyó	e-wóowó	e-vóovó
without IV	ndyóoyó	wóowó	dyóodyó	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-ndýooyó, e-w̄oowó 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-ndyóoyú	e-wáayá	e-dyáadí	e-wáaú	e-váavá
without IV	ndyóoyú	wáayá	dyáadí	wáaú	váavá
	this	these	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. (1)

nominal class	1	2	5	14	17
with IV	e-ndyóóna	e-áána	e-dyáadína	e-wáaúna	e-kwáakúna
without IV	ndyóoná	áaná	dyáadiná	wáauná	kwáakuná
	that very	those...	that(matter)	that(manner)	there (to)

---

1. e-ndyóondyána, e-ndyáandína, e-ndyáandyána, e-ndyóondína.

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.

class(stem)	1/1	1/2	1/3	2/1	2/2	2/3
with IV	ó-yaame	ó-yaaku	ó-yaandi	ó-yeeto	ó-yeeno	ó-yaau
without IV	yáame	yáaku	yáandi	yéeto	yéeno	yáau
	my, mine	your(s)	his/her(s)	our(s)	your(s)	their(s)
		(sg)	/its		(pl)	

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.

   ó-yaandi / yáandi his (Series 9) cf. o-yáandi / yaándi 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.

class (stem)	1/1	1/2	1/3	2/1	2/2	2/3
	yaáme	yaáku	yaándi	yeéto	yeéno	yaáu
	with me	...you(sg)	...him/her	...us	...you	...them
			/it		(pl)	

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-yáandi)
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. yáandi his (Series 9, but ó-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:

> A   K
> **akwěyi weéle?**   it is where that you have been?
>
> (where did you go? also where are you going?)

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,[1] their patterns are as follows:

nominal class	1/1	1/2	1/3	2/1	2/2	2/3
	kwaáme	**kwaáku**	**kwaándi**	**kweéto**	**kweéno**	**kwaáu**

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, inthe contexts to which
this chapter is limited, they have only one tone-pattern.

---

1.   No. 13 in Appendix I shows an example of **kwǎandi**, 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+
> wakǎang' ekúulu   he bandaged up <u>the leg</u>

> A   Qs   R+
> wakaanga yǒ ekúulu   he bandaged it up <u>the leg</u>   (cited p. 99)

ekúulu 'the leg' has the same pattern in both slots, while
its Q- variant is ku-úlu.

Similalry, 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+
> bǎvaanaang' oáleéke onsswá   they gave <u>the young people</u> the permission

>   (cited on p. 94)
> A   Q+
> cf. balǒongaang' oáleéke   they used to teach <u>the young people</u>

oáleéke, whether as B or as Q+, has the same pattern, in contrast to the
Q- variant pattern, aléeké.

Conversely, a nominal capable of functioning as C as well as Q-
will display the same pattern in both slots:

   A   ii   C
kafwete kkalǎ nttúmámi he must really be <u>a biddable person</u>

   A   ii   Q-
basinga vvaǎva nttúmámi they will require <u>a biddable person</u>

nttúmámi (TCIy, with reversed final variant nttúmamí) is not tonally
distinguished, whether filling C or Q-, and this pattern contrasts
with that of the Q+ variant, ént-tumámi.

Similarly, nominals in the post-nucleus V+ and V- slots
respectively exhibit a parallel variation:

...éffuku (in) the night, V+ <u>cf.</u> ...ffúku (at) night, V-
This may be compared with the Q+/Q- variants of éf-fulu / f-fúlu '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
tono-morphological variants[1] 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. éf-fulu flower   ond-záambi God
            os-sevá to laugh   e-leénge pumpkin

Variant 2 (Var.2) : characterized by absence of Initial Vowel
        and a particular set of tone-patterns, speficied for each TC:

      e.g. f-fúlu flower   nd-zaámbi God
            s-sevá to laugh   leénge pumpkin

1.   The term <u>tono-morphological</u> 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: os-sevá Var. 1, s-sevá Var.2
'to laugh'.   Likewise:

> ekí-mm-buta Var.1, kí-mm-buta Var. 2 'age'
>
> omú-nd-zo Var.1, 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:

$$\overset{\text{L} \overline{\hspace{3em}} \text{Y}}{\text{enlloongo myăsadilaang' ákulu éeto}} \qquad \text{(oá-kulu Var.1, a-kúlu Var.2)}$$

the remedies which used to use our <u>ancestors</u>

$$\overset{\text{L} \overline{\hspace{1.5em} \text{ii} \hspace{1.5em}} \text{Y}}{\text{ĭnthaangwa / yina yifwĕte zziwúlwa énkkaand' ammbuúndu}}$$

it is the time / that should be opened <u>the book</u> of the heart

> (énk-kaanda Var. 1, nk-káanda Var.2)

The nominals fucntioning 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

<u>Variant 1a</u> (Var. 1a) : characterized by presence/absence of Initial

> Vowel in free variation, but with the tone-patterns of Variant 1

> (o)á-kulu   ancestors   (e)nk-kaanda   book

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 <u>requiring</u> 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:
(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 ЄIP, as well
as nominals without pre-prefix.   V+ includes both omúffuku 'in the
night' and éffuku 'the night'; V- includes múffuku 'in (=by) night'
as well as ifúku '(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.

(1)

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', kwa- '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 <u>not</u> phrase-initial.

characteristic in respect of pre-prefix by means of <u>substitution</u>
<u>class sets</u>, 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   <u>Example</u>

    Variant 1 : has Initial Vowel   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   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.

Unit	Variant required	S𝒞 drawn from set/s
B	1	i and ii
C	2	i and ii
F+	1	i and ii
F-	2	i and ii
Pa	1a	i and ii
Q+	1	i and ii
Q-	2	i and ii
R+	1	i and ii
R-	2	i and ii
S+*	1	ii
S-*	2	ii
T*	2	ii
V+*	1	i and ii
V-*	2	i and ii
Y	1a	i and ii

* in post-nucleus position

The tabel 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 in Chapter 1 [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+
isinga lleĕnd' óssuumb' éyyuunga 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+
bǎvaanaang' oáleéke elaú   they used to give <u>the young poeple</u> <u>the chance</u>

Sequences of the second and third kind have been described, in so far as the individula 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 <u>eliding vowel</u>; the omitted vowel is called the <u>elided vowel</u>.   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+
...éssoong' edyóódyo 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 ‾‾‾‾‾‾ Q+
...mulluúnd' énkkaanda in keeping the skins (mulluúnda + énkkaanda)

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 <u>transference</u>:

F+ ‾‾‾‾‾ S+
...okkot' ómúndzo 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 <u>shifted</u> to the preceding vowel:

F+ ‾‾‾‾‾ Q+
...onnát' ónkkaanda to carry the book (onnatá + ónkkaanda)

The realization of the basic pattern of the variant may thus be distorted, in cases of transference or shift.[1]

3.3.2.2. <u>Unitary nominal groups</u>

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+   ii   Q+   ii
...emáaza móómo <u>and</u>   ...emáaz' emóómo   <u>these</u> waters

---

1.   There are special rules of elision for e?, 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_{al} with dependent pre-prefix attached. The variant required is Variant 2 (no Initial Vowel).

       S-   ii
...múvata dyáandi in his village (cf. é-dyaandi Var. 1)

       Q+   ii
...edyaámbu dyánkhuumbu 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' oyǎandi ómpfumu kayéndaanga that which he the chief used to go

                         (cf. mpfúmu Var. 2)

      Pa   ii   K
min' oyǎandi nkkití kasínga kweénda those which he the trader will go

             (cf. onkkití Var. 1, nkkití Var. 2[2])

The pattern of the   variant may, as in other cases, be distorte d by elision:

L elided + L eliding :   ...éndz' eyááyi this world (éndza + eyááyi)

L elided + H eliding :   ...dyámmbeb(e) ámphweena of the responsibility of greatness (of great responsibility)

H elided + L eliding (transference) : ...zamphil' éyááyi of this kind (zamphilá + eyááyi)

H elided and H eliding (shift) : ...emphíl' áwete the kind of beauty (emphilá + awete)

---

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 inclusing 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

chnaged, 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 aptterns of non-initial nominals, filling identically labelled slots, but in one case including th e peak and the other not, it will be seen that there is considerable agreement :

<div style="margin-left:3em;">

A   ii Q-

osinga ssǎla ssálu   he is going to do <u>some work</u>

A   Q-

wasala ssǎlu   he did <u>some work</u> (ssálu Var.2)

</div>

ssálu and ssǎlu 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:

<div style="margin-left:2em;">

(G: A   Q+)

...vó / wǎmon' ónkkeénto   that / you saw <u>the woman</u>

(G: A   Q+)

...vó / wamon' ǒnkkeénto   that / you should see <u>the woman</u>

(ónkkeénto Var.1)

</div>

ónkkeénto and ŏnkkeénto 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 nkkĕentó   that / you saw <u>a woman</u>
          (G: A   Q-)
     avŏ / wamona nkkeentŏ   if / you should see <u>a woman</u>
                                  (cf. nkkéentó Var. 2)

The Q- items here cannot be described in the same terms; only the
first, nkkéento, is recognizable as having Variant 2 pattern (neither
pattern resembles Variant 1, ónkkeénto).   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 <u>position of the peak</u> : 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 <u>identical</u>
structures, seemingly consisting of the same items, may show different
placing of the peak:

A   ii
asadisí ámmbote   they are good helpers (lit. helpers of goodness)

A   ii   (1)
asadisi ámmbote   they are good helpers

Where the item is both phrase-initial <u>and</u> 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
ámmbote   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   A
asadísi   or   asadisí   they are helpers

cf.   asádísi   or   asádísí   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. <u>Phrase-initial nominals occupying entire phrase</u>

These are limited to nominals heading a slot where the first item
(2)
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
                    (1)
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:

<pre>
         L̄‾‾‾‾‾‾‾Y
kina kiffutĭlwaang' émmboongo   that which is paid at <u>the money</u>

                              (where the money is paid into)
  P   ii   K   A
emmboongo / zina bătaambulaanga / zăkalaanga

<u>the money</u> / that which they used to receive / was
</pre>

émmboongo filling the Y slot has a high tone; emmboongo heading the

P slot does not.

Similarly the pre- and post-nucleus V+ units in the next pair:

<pre>
  A   X   V+
dyassivi kĭkilu éwuúnu   it is of wonder indeed <u>today</u>

  V+   A   ii   Na
ewuŭnu / tusinga mmŏnaana yaándi   <u>today</u> / we shall see (together with)

                                                       him
</pre>

Post-nucleus V+ is filled by éwuúnu, with two high tones; pre-nucleus

V+ has ewuŭnu, 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:

	P/V+ pattern	Variant 1	Variant 2
money	emmboongo	émmboongo	mmbóongo
today	ewuŭnu	éwuúnu,...unú	wúúnu,...unú

Compare also the Q- item and the A head in the following:

<pre>
 P   ii   iA   Q-
etima dyăau / idyavvaaná lusádisú   their intention / is to give <u>help</u>

                                       (lusádisú Var. 2)
  A   ii   K ‾‾‾‾‾R+
lusadisŭ / luna băvwaang' émffunu   <u>it is help</u> / that (of) which they

                                             had the need
</pre>

In the next pair, however, there is more resemblance:

  A
ssǎlu   it is work

  A   ii   Q-
isinga ssǎla ssálu I am going to do <u>some work</u>   (**ssálu** Var. 2)

ssǎlu (A) differs from **ssálu** (Q-) only in having the high tone at peak pitch.

Again, there is no similarity between the new pattern and Variant 1:

	A pattern	Variant 2	Variant 1
help	**lusadisǔ**	**lusádisú, ...ísu**	**olúsadísu, ...isú**
work	**ssǎlu**	**ssálu**	**éssalu**

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 <u>each</u> of the new pattern sets is regularly relatable to <u>one</u> of the tono-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:

	Phrase-initial	Variant 1
money, goods	emmboongo	émmboongo
villages	omavata	omávata
truth	elludi	ellúdi
tomorrow, outside	emmbazi	emmbazí
planks	omabaya	omabayá
people	owaantu	owaántu
pupil	onnlongoki	onnlongóki
face	olose	olóse
he	oyaandi	oyáandi
difference	entswaaswaani	éntswaaswaani

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:

	Phrase-initial	Variant 1
today	ewuŭnu	éwuúnu
to wait for	ovviingĭla	óvviingíla
help	olusadĭsu	olúsadísu
nursing mother	omwalakăzi	omwálakázi

(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 <u>initial modification of Variant 1.</u>

Rule 1 -- the non-realization of the first potential high tone -- operates on Variant 1a as well as on Variant 1:

      P   iA
    yaandi / Imvvaangi   <u>He</u> / is the creator

      P   iA   ii
cf. oyaandi /.ingudi ankhazi   <u>he</u> / is the maternal uhcle

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 Pa), unlinked Q+, pre-nucleus S+ and pre-nucleus V+. Some of these are illustrated below:

         P   ii   K   A
P: emmboongo / zina bataambulaanga / zakalaanga

    the money / that which they used to receive / was

        P*   A   K
P*:   engudi / llekwa kaveeno

    the mother / it is something that she has been given

    (the mother has been given something)

        V+   A   X   K
V+:   emmbazi / mmbunguluulu kikilu issikama

    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 nomials; 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:

	Phrase-initial	Variant 2	cf. Variant 1
money, goods	mmbŏongo	mmbóongo	(émmboongo)
villages	mavǎta	maváta	(omávata)
truth	llŭdi	llúdi	(ellúdi)
tomorrow, outside	mmbazĭ	mmbazí	(emmbazí)
planks	mabayǎ	mabayá	(omabayá)
people	waantŭ	waantú	(owaántu)
pupil	nnlongŏki	nnlongóki	(onnlongóki)
face	losě	losé	(olóse)
he	yaǎndi	yaándi	(oyáandi)
difference	nstwǎaswaani	ntswáaswaani	(éntswaaswaani)

Variant 1 patterns are shown in brackets for comparison.

b) when however the Variant 2 pattern contains <u>two</u> high tones, only
the <u>second</u> 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:

	Phrase-initial	Variant 2	cf. Variant 1
today	wuǔnu	wúúnu	(éwuúnu)
to wait for	vviingǐla	vvíingíla	(óvviingíla)
help	lusadǐsu	lusádísu	(olúsadísu)
nursing mother	mwalakǎzi	mwálakázi	(omwálakázi)

(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 <u>Rule 2</u>.

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.

(1)

Units requiring Variant 2 in phrase-initial position are : A

unlinked Q-, and pre-nucleus S-, T and V-.

A :
                       A
                    mavăta   they are villages

    (G: A   Q-   ) A
    avŏ / wamona meengă, / mooyŏ if/ you should see bloŏd, / _it is life_

           P   A
    edyaadĭ / dyassĭvi   this / _is of wonder_

unlinked Q- :   A   Q-1   ii   Q-2   Q-3
        bătwaasaanga / myendo myănkhuni, / madyookŏ, / ngubă

        they used to send / bundles of firewood, / _cassava_, / _peanuts_

T :   T   S-   ii   iii   A   ii   Q
        muvvutukă / kună tuukú dyadyaámbu, / tŭfwete vvŏva vó

    in returning / to there the origin of the matter, / we should say that

V- :   V-   A   Q-
        mŭffuku / wamona woŏnga _in the night_ / he saw (experienced)

                                       fear

---

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

		Heads unit
ye-/yo-	and, with	E and N[1]
kwa-	by, for, to	J[1]
i-	it is/they are	iA
se-	it is/they are	
	now/then	iA
tu-, etc.	we are, etc.	iA[2]

Since nominals with these are alwasy 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:

yomǎvata   and/with the villages (E or N)

kwayǎandi   to him (J)

senndǔumba   she's a young lady now

ilukwiikǐla, ...ilǔ   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
yomǎvata	mumǎvata	(o)mumạvata
and/with villages	in the villages	in the villages
sewaǎntu	dyɐwaǎntu	(e)dyawaạntu
they are now people	of the people	of the people
ilukwiikǐlu	dyalụkwiikǐlu	(e)dyạlukwiikǐlu
it is the belief	of the belief	of the belief
kwankkeentǒ	kịnkkeentǒ	(e)kịnkkeentǒ
to a woman	womanhood	womanhood

1.   'Rule 1 operates only on Variant 1 (including 1a)', p. 181 above.

'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 aliked The (b) patterns are those of modified Variant 2. There is therefore strong supportfor 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

i) having a basic pattern identical with that of the Variant 2 of the corresponding nominals with morphologically variable prefixes, and

ii) 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 id dictated by the syntactic slot. the nominal is to head.

```
                          variant
                       ↗            ↘
      syntactic slot                    ↗ modification
                       ↘            ↗
                          phrasing
```
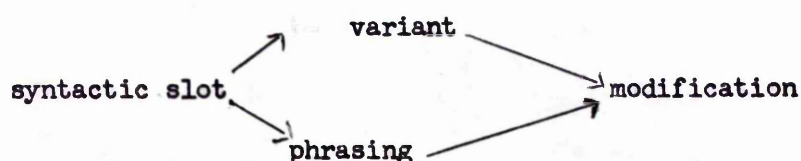
For instance, the A and P units:

```
                  ↗ Variant 2
              ↗                ↘
      A                           → Rule 2 modification
              ↘                ↗
                  → phrase-initial
```

```
                  ↗ Variant la
              ↗                ↘
      P                           → Rule 1 modification
              ↘                ↗
                  → phrase-initial
```

If the slot is to be headed by (o)muuntu 'person':

```
                  ↗ Var. 2 muuntú
              ↗                    ↘
      A                               → Rule 2 muuntǔ
              ↘                    ↗
                  → phrase-initial
```

```
                  ↗ Var. la  (o)muúntu
              ↗                        ↘
      P                                   → Rule 1  (o)muŋntu
              ↘                        ↗
                  → phrase-initial
```
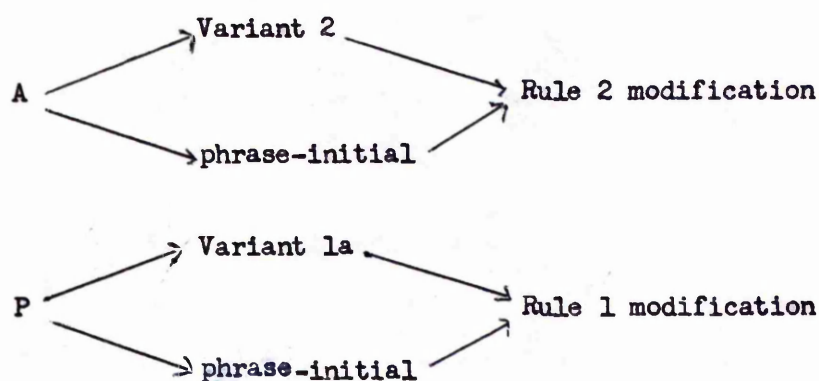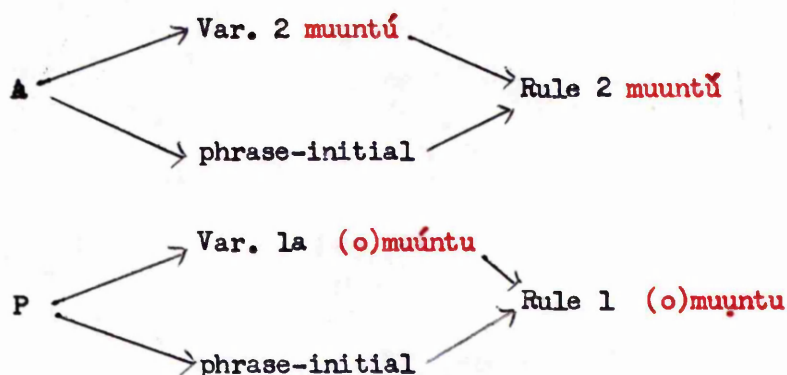
The one difficulty of description concerns the nominals with
morphologically invariable prefixes. They are described as having
the basic pattern and modification proper to Variant 2, but there are
no occurrences of the fully realized variant, nor is therea corresponding
'Variant 1'. They do not, therefore, 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   (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 morphologically variable
      pre-prefix, but not invariable pre-prefix.

      Variant 1 : has Initial Vowel   (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)

Set (iii) : Nominals with morphologically invariable pre-prefix.

      Variant 1 : none

      Variant 2 : no Initial Vowel   (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 repsect of <u>number</u> of potential high tones, all variants have the same number, and in respect of <u>position</u> 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.[1]

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:

    i-mu-má-vata (--→ imumávata)   it is in the villages

    ye-kí-mm-buta (--→ yekímmbuta) 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

Unit	Variant required	Pattern set/s of SC
A	2	i and ii
iA	2	iii
E	2	iii
H	1	i and ii
J	2	iii
N	2	iii
P (not Pa)	1a	i and ii
Q+ unlinked	1	i and ii
Q- unlinked	2	i and ii
S+ pre-nucleus	1	ii
S- pre-nucleus	2	ii
T pre-nucleus	2	ii
V+ pre-nucleus	1	i and ii
V- pre-nucleus	2	i and ii

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:

> iA   ii
> Íffu kyántsi   it is the custom of the country

This is a unitary nominal group, filling the iA slot.

The pattern of Íffu conforms to the description as set out for phrase-initial nominals occupying the entire phrase.   The iA 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 iA head is phrase-initial, and requires Variant 2 : *í-ffu. [1] The initial modification proper to Variant 2 is Rule 2 : second/only potential high tone realized.   *í-ffu has only one high tone, there-fore it is realized.   The realized high tone is the first in the phrase, therefore it takes peak pitch, giving Íffu.

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-ntsi. The preceding item has already taken peak pitch, therefore 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 <u>concatenate sequence</u>. '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:

<div align="center">

P   ii   iii

emabuula mamyǎanzi myǎnkhengakyaǎsa / mǎsikwaanga
</div>

<u>the skin of the roots</u> 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 1a and phrase-initial position.   Variant 1a for this particular nominal is * (e)ma-búula.   Being phrase-initial, it is subject to initial modification, the appropriate kind for Variant 1a being Rule 1 : first potential high tone unrealized, hence emabuula.

ma-myǎ-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-myá-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 : mamyǎanzi.

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+
```
ellaandil' edyðodyó, / nndwiini ĕmmbuungu áame atí (ellaandila + edyðodyó)
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).[1] 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 * ellaandila.

The following item, edyðodyó, 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 : edyðodyó.

---

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:

ellaandil(a) edyŏodṭó

but since both elided and eliding vowel have low tone, there is no distortion.[1]

In the next example, the phrase under discussion consists of a chain group:

V+ ii A Q-
ezaak' ĕnthaangwa, / bavaangaanga nlloŏngo

<u>some</u> <u>times</u>, / they used to make remedies (ezaaka + ĕnthaangwa)

The V+ head, ezaak(a), is a modified Variant 1, as required by the slot it heads. The second item, ĕnthaangwa, 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 : ĕnthaangwa.

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.[2]

The sequence next to be illustrated is from an E slot:

E⎯⎯⎯Q+
yollel' ŏmwáana   and to look after the child (yollelă + omwáana)

The E/SC contains only nominals from Set (ii), that of the nominals with invariable pre-prefixes.. It requires Variant 2 and phrase-initial

---

1. See 3.3.2.1., p. 168: '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 *yollelá.   The appropriate
modification is Rule 2 : second/only high tone realized.   *yollelá
contains only one high tone, therefore it is realized, giving *yollelá.
The high tone is the first realized in the phrase, and therefore takes
peak pitch : *yollelǎ.

    Ŏmwáana is in the Q+ slot, which requires Variant 1 and non-initial
position.   Variant 1 is *omwáana, 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 *yollelǎ.   The
eliding vowel is the first vowel of *omwáana, which has low tone.
In such a case, the high tone is transferred to the eliding vowel,[1]
giving yollel' ŏmwáana.

    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.

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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:

<div align="center">

A   Q-

ẹvvova / yọnlleěke / ffwasạ mvvǒvo

to speak / with ạ young person / <u>is to waste speech</u>

</div>

The A unit head, **ffwasạ**, 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:
*ffwasǎ. In fact, **ffwasạ** has no realized high tone at all.

mvvǒvo 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 *mvvóvo, 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 **ffwasạ**, and the consequent occurrence of peak pitch in **mvvǒvo**.

Taking the basic patterns of the sequence as a whole, one sees that
there are two potential high tones:

<div align="center">

*ffwasá mvvóvo

</div>

but only the second of these is realized in **ffwasạ mvvǒvo**.

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 ifthe item contains two, the first is not realized. An example is asạdĭsi 'they are helpers', which, like ffwasạ, 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 *ffwasá mmvóvo the rule is applied to the sequence as to one item, then the pattern *ffwasạ mmvóvo 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:

*ffwasá-mvvóvo modified by Rule 2 to *ffwasa-mvvóvo

The realized high tone is first in the phrase, hence ffwasạ-mvvŏvo.

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 oɓa 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 capabale of being followed by Q-, as in the example of ffwasạ-mvvŏvo. 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:

    iA   ii
    Iffu kyántsi   it is the custom of the country (concatenate)

       iA   ii
cf. ịffu-kyǎntsi   it is the custom of the country (composite)

It is to be noted that description in terms of composition is only <u>required</u> in cases where (i) Rule 2 is the appropriate modifiĉation <u>and</u> (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:

  H ‾‾ Q-
ẹssya vvuǔvu kúndzo áko, / nkhiǐnga / malembĕ maandi katalekele
<u>to place hope</u> at the house of an in-law, / suddenly / it is his pumpkins
                           that he has cooked[1]

1. 'Don't rely on your relatives' providing you with food.   Experience shows that cadging kinsmen are fobbed off with the worst abailable.' Pumpkins are not regarded as sufficient food, without cassava porridge.

For the sequence ẹssya vvuǔvu, description in terms of concatenation
will suffice.   The first high tone will be unrealized, since Rule 1
is in operatioh.   The head of H is always Variant 1, and phrase-initial.
Equally, there is no bar to analyzing as a composite : ẹssya-vvuǔvu.
When concatenation and composition are distinguishable, Q- is regularly
in composition with the preceding phrase-initial unit, and vvuǔvu 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
> asạdisǏ ámmbote   they are good helpers

asạdisǏ heads the A unit.   As such it appears as Variant 2, *asádisí
modified by Rule 2 : *asạdisí, and its realized high tone is first in
the phrase, hence asạdisǏ.   The modification operates over the first
two potential high tones only, never beyond.   Analysis as a composite,
asạdisǏ-ámmbote, 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 componen t of a demonstrable
composite sequence is not distinguished in any way other than tonally
from ahe 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:

        A   ii
       muuntụ-ǎmmbote   he is a good person

cf. muuntǔ   he is a person

      P   ii   iA   ii
ẹnthaangw' ǎddya / ịnthaangw'ǎddya

                                      (1)
the time for eating /<u>is the time for eating</u> (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:

      A   ii
     sẹ-dyǎnkkeénto   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 : sẹ-dyǎnkkeénto. 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: ẹnthaangw'-ǎddya.

4.2.3. Compounding

The following is a sequence which cannot be described in terms of either concatenation or composition:

    A   ii
    asadisi ǎmmbote   they are good helpers (cf. oásadísi 1, asádisí 2)

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:

    P   ii   A
    yau ǎkulu / bǎvovaanga vó   they the ancestors / used to say that

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)yáau 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 peculairity 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:

     A   Q-   ii

băsadilaanga / nllongo myayĭingi   they used to use / <u>many remedies</u>

            (cf. nlloóngo 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:

     A   C   ii

băkalaanga / asadisi ămmbote   they were / <u>good helpers</u>

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-
£lass 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 <u>compound</u>.   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:

<p style="text-align:center">asadisi-   yau-   nllongo-</p>

(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':

        A(c)   C(c)

        asadisi-ǎmmbote   and   asadisi-ǎmmbote

        P(c)   Q(c)

        yau-ǎkulu   nllongo-myayǐingi

(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: [1]

        A(c)

        asadisi-ǎmmbote   they are good helpers

        A   ii

cf. asadisǐ ǎmmbote   they are good helpers (concatenate or

                                                composite)

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. [2]

---

1.   Where non-initial components head syntactic slots, however, they
are given the unit label.   See the example min'-oyǎandi '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 thata 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 la,' 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:

-ǎmbote   -ǎkulu   -myayǐingi

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

final vowel of the sc.:

yandǐ-ngudi   she the mother   cf. (o)yáandi Var.1, yaándi Var. 2

and ⸜ngudi

munǎ-ndzo   in there the house (there in the house)

cf.   (o)múna Series 2, muúna Series 3, and ⸜ndzo

The dc. appears to have peculiar features in the case of
possessive pronominals of Series 9.   As non-initial members of
possessive complexes, these have been described as appearing in
Variant 2 form   (1) :

...⸜ngudi záau   their mothers (cf. (ó)zaau Var.1)

When the possessive complex is compounded, however, the pronominal
shows Variant 1 pattern:

ngudǐ-zaau   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)   ii(c) Pa   ii   K   ii

   nkkumbu-myawǒonsono / min'-oyǎandi nkkití kasínga kweénda

all the times / <u>those</u> which <u>he</u> the trader will go

oyǎandi heading the Pa unit has IV, and is the dc. of a compound.

Compare however:

    V(c)   Pa   ii   K ———— Qs
    vaav'-ǎkulu �éeto básadilaangá dyo   (cf. oákulu)

<u>then</u> that our <u>ancestors</u> used to practise it (when our ancestors...)

The head of the Pa unit here, ǎkulu , has no IV. Similarly, the Q+

unit requires Variant 1, and always appears with IV, even when

compounded:

   V(c)   Q+   ii   A
   ttuuk'-ěnthaangwa yáayína, / walǔundaang' ěnkkaanda myábbulu

<u>to come from</u> that <u>time</u>, / he used to keep the skins of the anima ls

(from that time onwards)

ěnthaangwa fills a Q+ slot, and is the dc. of a compound with the

sc. ttuuk(a).

    The sc, of a compound may, however, take pre-prefixes:

   iA(c)
 ingudi-ǎnkhazi   he is the maternal uncle (lit. mother of relatives)

                (i-, stabilizing pre-prefix)

  J(c)
 kwandzambi-ǎmphuungu to God of the highest

            (kwa- J unit pre-prefix; cf. (o)ndzáambi Var.1,

            ndzaámbi Var. 2 'God')

  dyandzambi-anaǎna of frivolity (lit. of the eighth god)

(dya- poss. pref. and (o)ndzáambi, ndzaámbi 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. **eváàva** Var. 1, **váavá** Var. 2, Series 7)

ttuuka- from...onwards (cf. **éttuúka** Var. 1, **ttúuká** Var. 2)

This feature cannot therefore be taken as a <u>criterion</u> 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:

nllongo-myayĭingi many remedies (compound)

cf **nloongo-myayĭingi**   (composite)

nthangwa-zawŏonsono all times (compound)

cf. **nthaangwa-zawŏonsono**   (composite)

Compounding <u>may</u> 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 <u>length</u> from
non-geminates:

nkumbu-myayĭingi many times, often (cf. **nkkúumbu** Var. 2)

nti-myangolŏ   trees of strength, hardwoods (cf. **nttí** 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:

thangwa-   times   cf. nthǎangwa Var. 2
tsusu-   chicken cf. ntsúsu Var. 2

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.

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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:

   A   N(c)
wǎkala / yomadyǎ-maandi   he was / <u>with his food</u>

   S(c)   E(c)
munǎ-nitu / yemuna-mwaǎnda   <u>in the body</u> / <u>and in the mind</u>

                       (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 <u>compounds</u>
heading these slots:

   A   X   C(c)   (1)
winaangǎ mphe / mwan'-aNdzǎambi he is also / <u>the child of God</u>

    A   Q(c)   (2)
bǎsadilaanga / nllongo-myayǐingi they used to use / <u>many remedies</u>

   A   S(c)   (3)
zekoka / kuna-kǒoko kwalú nene turn / <u>to the</u> right (hand)

                     (lit. to there the hand of rightness)

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

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1.   Cited on p. 83 under 2.1.8.

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:

> P   ii(c)   A
> eyaayǐ / yau-yoolě / yivvaanaangǎ ntsaǎsa
>
> 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:

> V-   ii   iii   iv(c)
> mutteezǒ kyangǒonde zǒǒzo / zaǔ-vwa
>
> in the period of those months / they a ninesome
>
>   (throughout those nine months)

The compound here is now here 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:

> A   ii
> mwaan'-ǎmpfumu   he is the child of a chief (composite)
>
>   A(c)
> cf. mwan'-ǎmpfumu   (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:

<div align="center">

A   ii   A(c)

vata-dyǎmmbote   or   vata-dyǎmmbote

it is a fine village

</div>

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:

<div align="center">

A   S(c)

bǎvutukaanga / kuna-mavatǎ-maau

</div>

they would return / to there villages their (to their villages)

<div>

       S(c)

cf.   kuna-mǎvata   to there villages (to the villages)

</div>

---

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, -mavată- displays the non-realization of potential high tone characteristic of an sc., in contrast to the second element of the bi-component compound, -măvata, which is a dcl and shows fully realized high tone (Variant 1a).[1] The final high tone in -mavată- 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)   A
> yau-akulă-eeto / okŏ vo they our ancestors / it is there that
>
> (our ancestors used to say that)

cf. yau-ăkulu   they the ancestors

The second component of the triple compound, -akulŭ-, 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.-ăkulu 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 tne 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.

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1.   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 frame-work 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

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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 <u>external</u> relationships of the group. Relationships of this kind are signalled in other ways, by the chacarteristics of the unit as set out in the definitions of Chpater 2. The meaning of the initial sequence types must therefore be sought elsewhere, in the <u>internal</u> 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 <u>only</u> as composite, in conditions where the concatenate/composite distinction is overtly marked. Such for instance is

    iA   ii
    seẹsi-ndzǒ   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	omwísi-váta
member of a kibanga group [1]	omwísi-kíbbaanga
customs/language of the Kongo	ekísi-Kóongo
members of a clan	oési-kaandá [2]

The stem of the first component can be generalized as **-isi-** [3] .
The members of the **-isi-** set may be called <u>bound items</u>, since
they never appear without a following nominal. When heading a
phrase-initial unit where composition can be distinguished from
concatenation, **-isi-** and the following nominal are always in
composite sequence.

---

1.   The **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 **yíbbaanga**.

2.   Most second components of the set can be described as having
Variant 2 pattern, e.g. **-váta**, cf. Var. 1 **évata**.   The pattern
-kaandá however does not exist outside the set.   Var.2 for this item
is **kaánda**, undistinguished tonally from Var. 1.   The pattern **kaandá**
may perhaps be regarded as a fossilized earlier Variant 2 pattern.

3.   Guthrie, <u>BSS</u> p. 21, no. 17, calls the equivalent structures in
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 (ó)nk-kwa/nk-kwá 'possessor' Class 1, and the corresponding Class 2 plural, (o)á-kwa/a-kwá. 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.

<pre>
     A   ii   iii
  nkkw(a)-ãnttim' avvólo... <u>she is possessor</u> <u>of a heart</u> of calmness

  akw(a)-angaǎngu   they are possessors of wisdom
</pre>
(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 á 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 elswhere 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 kyántsi   it is the custom of the country (concatenate)

cf. iffu-kyántsi   it is the local custom (composite)

      yollel' ŏmwáana   and to look after the child (concatenate)

cf. yollel(a)-omwăana   and child-care (composite)

      ffwasa-mvvŏvo   it is speech-wasting (lit. is to waste speech)

      esi-văta   they are village people (lit. inhabitants (of) a village)

      mwaan'-ămpfumu   he is a chief's child (lit. child of a chief)

      nkhi-ănthaangwa? what time is it? (lit. it is what of time?)

The last example shows *nkhí? '(it is) what?' which only stands as a

nucleus, and when followed by a possessive, is always in composition

with it. [1]

    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 descri be

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, howeter, it is not in composition, e.g.

nkhĭ kasínga vváanga? 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 c̬se 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
nllongo- '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 IƁ.   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:

kuná-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 / kunǎ-ndzo   I went back to the house

        A        S-
cf. mbvutukidi kǔndzo        I returned to the house

        A        S+
and mbvutukidi okǔndzo       I 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-ǎkulu     they the ancestors
    yandǐ-ngudi   she the mother
```

Pronominals heading compounded possessives may sometimes be rendered by English prepositions:

```
        A         Q(c)
    walǒongwaanga / edi-dyavveěnga   she was taught / about avoiding
                                     (lit. this (matter) of avoiding)
```

In some cases the distinction between the three kinds of sequence may be indicated by different lexical items:

```
    ọse dyǎnkkeénto        the father of the woman (concatenate)
    sẹ-dyǎnkkeénto         (he is) the woman's father (composite)
    se-dyǎnkkeénto         the paternal aunt (compound)

    ẹndza yǎkkaka          a world of difference (concatenate)
    ndz(ạ)-ǎkkaka          a different world (composite)
    ndz(ạ)-ǎkkaka          another    world (compound)[1]
```

---

1. The concatenate shows a different morphological form of the possessive prefix, ya-, as against a- in the composite and compound. The distribution of this feature is not sufficiently regular to allow of its admission as an additional marker of distinction.

ẹnkkuumbu myayĭingi	on many occasions (concatenate)
nkkụumbu-myayĭingi	many times (composite)
nkkumbu-myayĭingi	often, frequently (compound)

Needless to say, nothing in English can match the <u>phrasing</u>
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 apprently 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 remembreed 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:

<pre>
    A   Q(G:A   Q+   )   (1)
yambula / twafiimp' ĕmphangaméno   let / us look at the structure

    A   C(G:iA   ii   iii
wǎkituka / sẹsuku-dyǎandi dyánndeéka   it became / now (it is) his

                                           bedroom (2)
</pre>

---

1. Cited on p. 116 above.

2. Cited on p. 117 above, without indication of composition.

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 exponence takes precedence
over that of the external relationships 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 v
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 subodrinate 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 rleationships of the head of the sequence, i.e., its relationships with other units in the sentence, which are part of the unit definition.

Compounding id 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. <u>Introduction</u>

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 <u>headed</u> by a particle in terms of
compounding ; that is, particles do not appear as <u>subordinate</u> 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 Xa particle **e?**, and two particle G heads, **kana** and **vo**, which may fill other primary slots in the sentence:

X/SC : beéni   **much, greatly**   náanga   perhaps

dvaáka   again   nkkutú   even

káka   only, merely   ozeévo   therefore
                                                    (1)
kála, kalá   already   útu   just

kíbeeni   self   vála, valá   far off

kíkilu   very   véle   however

(´)mphe   also

(2)

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 amwǎaná mphe   the mother of the child also

cf. engudi amwǎana   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 dyǒodyó mphe   this matter also

cf. edyaambu dyǒodyó   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 (´)mphe, 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   Q(G)
    Ìssya vó   it is to put that (that is to say)

  or **Ìssyá 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 instances of low tone elided and eliding vowel:[1]

            A   ii   F+   Xa
        osinga lleĕnd' ómmon' e? will you be able to see?

            A   ii   F+
    cf. **osinga lleĕnd' ómmona**   you will be able to see

However, when the elided vowel has high tone, this is realized on the vowel preceding the elision:

            A   ii   F+   Xa
        osinga lleĕnd' okkót' e? will you be able to get in?

            A   ii   F+
    cf. **osinga lleĕnd' okkotá**   you will be able to get in

This may be described as high tone <u>shift</u>, as in cases where both elided and eliding vowel have high tone[2]. 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. 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 Variant 2 form (1). 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. kalá, kála 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:

...náanga	/nǎanga/	perhaps
...ozeévo	/ozeěvo/	therefore
...kana	/kana/	whether, before
...(´)vo,vó	/vǒ/	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.[1]   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 β/SC :	yǒ	and	kaǎnsi	but
			iboosǐ	and then

members of G/SC :	sě	it is now/then	nkhetě	before
	ngǎ	it is possible	avǒ	if
	ně	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.

     G ── X ── Gii
     kana nkkutŭ vo   even if, even though

       G ──── X ─ Gii
     kaneelĕ mphe vó   also although

     (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 over one item --
composition:

     β ── x
     kaạnsĭ-mphe   but also   cf.   kaᾰnsi   but   and   'mphe   also

       β ── x
     kaạnsi-ŭtu   but exactly   cf.   kaᾰnsi   but   and   útu   just

       x ── G
     naạnga-vŏ   except, unless   cf.   náanga, năanga   perhaps   and   vó   that

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:

$\beta \overline{\quad} \times$

yĕ-mphe (or yĕ mphe, concatenate)   and also   <u>cf</u>. yĕ <u>and</u> (´)mphe

$\beta \overline{\quad} \times$

iboosĬ-mphe (or iboosĬ mphe)   and then also <u>cf</u>. iboosĬ

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 yĕ and iboosĬ, 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:

G ii	G × G ii
kaneele-vŏ although	kaneelĕ-mphe vó also although
	G × G ii
	kana-nkkutŭ vo even though

kaneele never occurs without a following particle; its basic tonal structure
cannot be established   . kana has been shown to have no high tones,
and vó 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. <u>Initial sequence and syntax</u>

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:

<div style="margin-left:2em">

kaneele-vǒ although   **kaneelě-mphe vǒ** also although

kele-vǒ   if (unrealized condition)

</div>

Neither **kaneele** nor **kele** occurs without following particle, and in this
respect_∧ they are comparable to the 'bound' nominal items.   The sequence forms
a whole which may be regarded as one item.

5.3.2.   <u>Phrase-initial sequence headed by nominal</u>

For description of phrase-initial sequences, headed by a nominal, in
which particles occur, all three terms are used:

concatenation: **idyǎssya vó** it is of putting that   (it is that)

composition: **woọnga-kǎka kalénda yómmweéna**

                  <u>it is fear only</u> that he could experience with respect to it

                        (he could only be afraid of it)

compounding: **kina kifwěte kkósoká / ammbuta-kǎka**

                  which (= where) may sit / <u>elders only</u>

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 ──────── X
kwayĕeto ozeévo      to us therefore
```

```
   iA       X
Ïnthaangwá mphe      it is the time also
```

```
   E ───── Q(G)
yĕvvova vó           and to say that
```

```
   P ───── X      iA       Q(G)
edyąaká mphe / idyăssya vó    another (point) also / is (of putting) that
```

Concatenation is not very common, and appears to be restricted to the
X particles ozeévo, náanga, (')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        X
woọnga-kăka...   it is fear only   cf.   woŏnga   it is fear
```

```
   A        X
dyạmmbote-bečni   it is very good  cf.   dyẵmmbote   it is good (of goodness)
```

```
   A        X
dyassịvi-kĭkilu   it is very surprising  cf.  dyassĭvi   it is surprising
```

```
   A        X
wanjẹembă-mphe   he is also kindly  cf. wanjĕemba   he is of kindness
```

```
   iA       X
sẹttala-kăka    it is now looking only (we shall just have to wait
```

and see)   cf.   sĕttala

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:

       A   C(c)——— X
kyǎkala / kyanKkobo-kĭkilu   it was/<u>of strength very</u> (very strong)

       A   C(c)——— X
mǎkalaanga / mammbote-beěni   they were /<u>extremely good</u>

       L——— ii ———Y(c)___ X
kina kifwěte kkósoká / ammbᵤuta-kǎka which should sit / <u>elders only</u>

                                    (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:

P(c)— X   iA
yau-kǎka / iǎkala   <u>they only</u> / are the ones who were <u>cf.</u> (o)yạau they

V(c)—(G: A(c)   X   K)
waǔ-vo / yandi-kǎka kákala   <u>now that</u> / <u>it is he only</u> that he was

                              (since / he was all alone) <u>cf.</u> (e)wạa ǔ <u>or</u>

                              (o)wạau now, thus <u>and</u> yaǎndi it is he

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:

     kuna-ssusi-kǎka   thither unexpectdeness only (quite unexpectedly)
<u>cf.</u> kunǎ-ssusi   thither unexpectdeness (unexpectedly)

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:

> iA   X
> indzo-kǎka it is only the house   (composite)
>
> or indzo-kǎka   "   (compound)

Where the particle is either (′)mphe or (′)vo, similarly the distinction is neutralized:

> iA(c)   X
> idyau-dimosí mphe it is it the same also (it's the same too)
>
>   (bi-component compound + ′mphe with high tone fusion)
>
> or idyau-dimosí-mphe (triple compound, the high tone representing
>
>   <u>only</u> that associated with   ′mphe)

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:

> A(c)   X
> nkkeento-kǎka she's a mere woman (compound)
>
> A   X
> cf. nkkęentǒ káka she's only a woman (concatenate or composite)

Composition is not required as a term when the initial nominal is under Rule 1 modification, where the first high tone is unrealized:

> P‾‾‾‾X   iA
> oyąandí mphe / iwayěndaanga <u>he also</u> / was the one who would go

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. yĕvvova vó 'and to say that'. At the other end of the scale, vo may appear as dc. of a compound, as in waŭ-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 (ʼ)mphe 'also', ozeévo 'therefore' and náanga 'perhaps'. Particles such as káka 'only', beéni 'much, greatly' and kíkilu 'very' only appear in composite or compound sequence.(1)

There is thus variation among the particles as to the sequences in which they may occur : (ʼ)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 compoudning.
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. (1)

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:
    P   A   Pa ——— K
    ẹkkuma / nkhĭ omuǔntu kafwéte... the reason / is what that a man should...
    V(c)——— Pa__ ii_____'K
    vaav'-ǎkulu éeto básadilaanga... when that our ancestors used to practise...
(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 depnedent 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 strcutures; 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)
        avɔ̌ / ozɔ̌lele   if / he wishes

    (G: iA   L)
    avɔ̌ / seyǎandi ozolele 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 pote_ntial high tones; it can then be described as
having no potential high tones, since there is no high tone realization.
The A verbal /ozɔ̌lele/ 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; ozɔ̌lele 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 depdenent nomino-verbals, although comparison of the two sets of
patterns at a later stage is interesting. (1)

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
> mǎkalaanga   they were
>
> A
> wǎsala   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 than Rule 1 modification does not apply to _any_ verbal in the A slot.[1] Description becomes impossible unless this principle is followed.

Compare now the following:

> (G: A   )
> avǒ / 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

     mǎkalaanga   they were

       A   C

    makalaanga-mǎmmbote   they were good

and

      A

    wǎsala   he worked

    A   Q-

    wasala-ssǎlu   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 verbals

which contain peak pitch at a point other than on the first vowel:

A
waboonga   he took

A   Q-
waboonga mabayă   he took some planks

(both examples tonetically marked only)

waboonga contains only one realized high tone, but it cannot be deduvced from this that there is no other potential high tone.   However, when it is followed by a Q- item, such as mabayă, 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 waboonga has onyl one potential high tone, realiz ed in /waboonga/.   Hence the analysis of the second example is

A   Q-
waboonga-mabayă   he took some planks

Another case in which it is at first sight difficult to establish the basic tonal structure is that of

A
bettaambulaangă   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 pssoibility 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-
bettaambulaangă mmboongo   they receive money (or, goods)

(tonetic marking only)

The sequence here cannot be described in terms of composition; mmboongo 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 bettaambulaangǎ 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

high tone only.[1]   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:

A
bettaambulaangǎ   they receive

As in the case of nominal composites, the Q- item may be written

hyphenated, but there is no exponence of composition here:

A   Q-   A   Q-
bettaambulaangǎ-mmbóongo   or   bettaambulaangǎ mmbóongo

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 : ót-taambúla /t-táambulá '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
bakáangaanga   they used to bind

    A   Qs
bakaangaanga-kŏ   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 bakaangaanga... has no realized high tone.
Composition characterizes A : Qs, as well as A : Q-.

    Compare however:

    A
bettaambulaangă   they receive

    A   Qs
bettaambulaanga zŏ   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.   (1) I therefore prefer a descritpion 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. (2)

---

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 : yanăta I carried, yabanăta I carried them.

Thus : bettaambulaangazŏ 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. (1)   For nominals with morphologically invariable
pre-prefixes, this prcoedure was adopted, there being more justification,
as is set forth in 4.1.4., p. 189.

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1. Frustra fit per plura quod potest fieri per unum, Odo Rigaldus,
Commentarium super Sententias, MS Bruges 208, fol. 150a., according to
Boehner, the earliest formulation of 'Ockham's razor'.   Boehner,
Ockham, Philosophical writings, Nelson, London, 1957, fn. p. xx.

6.1.3. Tone-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 (1) . The 'long vowel' analysis is useful for some cases
here, since it results in a simpler statement. The distribution is
summarized below.

radical shape	TCI	TCIy	TCIII
-C(V)-	-w- hear		
-CV(:)C-	-tal- look(at)		-sev- laugh (at)
			-kal- be
	-keeng- guard		-soomp- borrow
-CV(:)(C)VC-		-sadis- help	-kiyil- visit
		-viingil- wait for	-viingil- replace
		-siis- leave(tr.)	-vaav- require
-CV(C)VCVC- and			
-CVCV(C)VC-		-sungamen- remember	-vilakan- forget
		-bookel- name	-lwaakil- arrive at,for
		-monaan- see each o.	--sukwiil- wash with

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:

   wătala he looked cf. ót-tala /t-tála TCI

but wasěva 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.

otădidi he has looked (INV in TCI)

osevĕlɐ he has laughed (INV in TCIII)

There is not however always such a difference correlatable with membership
of a different TC:

nthadidi 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:

nthadidi	I have looked		yătala I looked
		but	
otădidi	he has looked		wătala 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 radcials:

ok-kalá to be	cf.	os-sevá to laugh (TCIII)	
	but	ót-tala to look (TCI)	
okkalăanga he is	cf.	ossevăanga he laughs	
	but	ottalaangă he looks	

In these cases -kal- displays patterns associated with TCIII.   Contrast:

wăkala he was	cf.	wătala he looked (INV in TCI)	
	but	wasĕva he alughed (INV in TCIII)	
okĕdi he has been	cf.	otădidi he has looked (INV in TCI)	
	but	osevĕle he has laughed (INV in TCIII)	

-in- 'be' and -inin- 'be for' appear only in one tense (Tense 1 [1], with Present reference with/without continuative suffix), and have here patterns similar to those associated with TCIII radicals:

wină(anga)   he is   cf.   ossevă(anga)   he will laugh/laughs (INV in TCIII)

                        but   ottạlaangă   he looks)
                               ŏttala   he will look) (INV in TCI)

winĭnaanga   he is for   cf. ossevĕlaanga he laughs for (INV in TCIII)

                          but ottạdilaangă he looks at for (INV in TCIy)

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+
bătwaasaang' omádya...   they used to bring the food (concatenate)

    A   Q-
wabọonga-mabayă   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 initiaḍ 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+   ii
bătwaasaang' omádya máau   they used to bring their food

    A   B   Q-
wasămunwinaang' omwáana tusaánsu she used to tell the child stories

---

     A   F+
báyatikaang' éddya   they would begin to eat

    A   S+
wakŏt' omúndzo   she went into the house

     A   V+   ii   iii

kyakilŏongaang' ezziíngu kyáandi kyawóonsono

                                       (1)

he used to teach himself throughout his whole life

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 <u>no</u> potential high tones, the first high tone of the following nominal will take peak pitch:

 (G: A   Q+   )
 avŏ / wamon' ŏnkkeénto   if / <u>you should see the woman</u>

    A   F+
ndzolele ŏvvutúka   I wish to return

When however the verbal contains two potential high tones, the concatenate/composite distinction cannot be shown:

     A   B   Q+
 dimmwẹesaang' ŏwaántu émphasi <u>it causes to be experienced to people</u>

                                 the distress (causes to be experienced by..

                                 (dimmwẹesaangǎ + owaántu)

      A   Q-
cf. yivvạanaangǎ 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 ky- in the verbal kyakilŏongaang(a) 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:

i) nominals and DNVs [1] of unit SCs of the 'minus' group: Q-, F-,S-, V- and C

ii) pronominals filling M and Na

iii) particles filling X.

    A   Q-
wạsala-ssắlu   he did some work

    A   F-
ozọlele-vvŭtuká   he wishes to return

    A   S-
winạ-mŭndzo   he is in the house

    A   C
makạlaanga-mắmmbote   they were good

    A   M   C
winạanga-kwaắndi kyámmbote   he is perfectly all right

    A   Na
wayẹnda-yaắndi.   he went with her

    A   X   N
wamọkena-kǎka / yŏmmbwa   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-)
            avŏ / wamona-meengǎ   if / you should see blood

                A   F-
            ndzolele-kweĕnda   I wish to go

---

1. Illustrated under 6.2.4.2., winạ-wǎkubama 'he is ready' (p. 263).

b) if the second component contains two potential high tones, the second
only is realized:

> (G: A F-
> avǒ / wamona-nkkẹentǒ if / <u>you should see a woman</u>
>
>   A   F-
> ndzolele-vvụtukǎ   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 <u>three</u> items:

> A   F-——— Q-
> ndzolele-ssụumba-yyǔunga I want to buy a rain-coat

6.1.4.3. <u>Initial sequence and syntax</u>

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
beyong 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.

<div align="center">

A   A   X_a

numweene   you have seen   <u>but</u>   numweenĕ e? have you seen?

A   A   X_a
cf. ŏssala -   you will work   <u>and</u>   ŏssal' e?   shall you work?

</div>

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 verbals (Tense 2 only [2]) 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:

(G: iA   L   )
avŏ / seyăandi ozolele   if / it is now he <u>who wishes</u> (...ozolele)

(G: iA   K   )
avŏ / sedyǫŏdyo kaveenge if / it is now this <u>that he has done</u> (..kaveenge)

---

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 L̪ verbals are always morphologically identical with the corresponding A (pure) verbals, but may sometimes differ in respect of tonal structure:

A	L
ozŏlele he wants	...ozolele he who wants (Tense 4)

K verbals may differ morphologically from the corresponding A and L verbals, and may or may not differ tonally:

	A	L	K
(Tense 4)	ozŏlele	...ozolele	...kazolele
	he wants	he who wants	which he wants
(Tense 1)	ŏmmona	...ómmona	...kammóna
	he will see	he who will see	...which he will see

Tonal distinctions are however minimal, and in many cases there is none:

	A	L	K
(Tense 2)	wăvaanga	...wávaanga	...kávaanga
	he made	he who made	which he made

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)‾‾‾‾‾‾‾ K
kina-kyănthete kávaanga   that first one <u>that he made</u>

P |iK|
cf. edyaadĭ / ikăvaanga   this / <u>is what he did</u>

When however the fully realized pattern shows two high tones, the phrase-initial stabilized form shows only the second realized:

Q(c)　　　　K
konso-ĕki bellóombaánga　　anything they ask for

|iK|
ibellǫombaănga　　　　　it is what they ask for

'Second/only potential high tone realized' is an adequate description of both patterns of the |iK| verbals.

There is however a different situation when the ʻfully realizedʼ pattern contains no high tones:

iA　　　K
idyǫŏdyo kazolele　　it is this that he wants
|iK|
Ïkazolele　　　　　it is what he wants

Here the phrase-initial form, with pre-prefix i-, 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, for all types of verbals, including the nomino-verbals, but in each case (1) 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/íkazolele
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:

$\boxed{iL}$ S-
izabanátaanga kuúna   they are the ones who took them there (concatenation)

$\boxed{L}$ K
wakubama-njiná   it is ready that I am (composition)

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+ :   edyaadí / ikavǎavilwaang' évvaanga this / is what she was required to d

          iK   Q-   L   ii   Y   ii
Q- :   ibalǒngokelaanga mawóonsono mafwéte zzáay' émwáan' ánkkeénto

    it is (there) that they learnt everything which a young lady ought to know

       iL   S-
S- :   izabanǎtaanga kuúna   they are the ones who took them there

       iL   X   Y
X :   ivǎdiilaangá mph' émmbuta   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
                                      sequence
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 compoisition, 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:

$$\boxed{L} \quad K$$

wakubama-njiná   it is ready that I am

(lit. it is one who has become prepared...)

$$\boxed{L} \quad X \quad K$$

wasaangaana-beéni winá   it is very mixed that it (colour) is

Here the range of units which may occur immediately after $\boxed{L}$ 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. $\boxed{iL}$ and $\boxed{iK}$ apparently have a
special syntactic status, since whatever unit follows, they are always
in concatenate sequence with it. By contrast, $\boxed{L}$ 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 $\boxed{L}$ never
occurs without a following unit in the same phrase, it may also be
regarded as having somehwta of a special status; there are no other
units filled by verbals which require <u>non-final</u> 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

ii) where L or K is preceded by a __stable question__ item filling A.   This

 is symbolized by the label A?

(i)
   iA   K ——————— Q(c)
  Ìnthaangwa kávewaanga / llekwa-yăkkaka

  it is the time when he would be given / other things

   iA   L ——— S- ii iii
  Ìttadi wináanga múntsi anttóto waNgóla

  it is the metal which is under the soil of Angola

(ii)
  A?   K ——— Q(G
  awĕyi dyatónenwaanga vó it is how that it was recognized (for) that (?

  A?   K
  nkhĬ ovváangaánga? it is what that you do? (what do you do?)

   A? L
  năni 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 isneither iA, nor a question item:

    A   K
madya-kådya it is food that he ate

    A   K
mundzo-kenǎ it is in the house that he is

    A   L
nttela-ussǔkaánga   it is statuee which comes to an end

Further, the sequence A : C with a DNV of the L/SC filling C is also composite:

    A   C(L)
wina-wǎkubama he is ready (a person who has become ready)

Particularly worthy of metnion is the fact that Ka as second item in a phrase-initial sequence is always in composition with immediately preceding A:

    A   Ka
ssevwa-kasěvwaanga 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 preseding.

    P   A   V(c) $\overline{\qquad}$ L $\underline{\qquad}$Q-
edyaadǐ / divvaangamaangǎ / nkkumbu-myǎkoondwa nthalú

this / is done / <u>times which lack number</u> (times without number)

                            cf. énk-kuumbu / nk-kúumbu 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)   K ———— F— ___ Q+   ii   iii
> **vaava-kamăna ttélamĕs' ŏndzo ăandi ánthete**
>
> <u>here that he finished</u> setting up his first house
>
> (when he had...   cf. **(e)váavá**)

The dc. of the compound here is a K verbal; as in the previous example,
the compound heads V.

> A   Q-———— ii(c) ——L
> **waboonga-mabayă / mena-măkala**   he took some planks / <u>those which were</u>
>
> P ———— ii(c) ——K   A   C
> **eyyaka / kina-kăvaanga / kyakala-kyangolŏ**
>
> the fence / <u>that one which he made</u> / was of strength
>
> P(c) ————— L   iA
> **edi-dyalăandilaanga / idyattwaasă**
>
> <u>this which used to follow</u> / is of bringing
>
> (what followed was that they would bring)

The great frequency of 'borken groups' associated with the occurrence of
L and K verbals was noted in Chapter 2 [1].   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) ————— K
> **eki-kyánthete kávaanga**   the first one <u>he made</u> (K not in compound)
>
> P ———— ii(c) ——K
> but **eyyaka / kina-kăvaanga**   the fence / (the) which he made
>
>   <u>or</u>, that he made (Kis dc. of compoun

---

1. See for instance 2.3., pp. 120-1.

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-ǎkkaka ákalaanga   other helpers <u>who were</u> (L not in compound)

A   Q - ‾ii(c)‾ L
wabǫonga-mabayǎ / mena-mǎkala he took some planks / <u>some which were</u>

<u>or,</u> ones which were (L dc. of compound)

L and K verbals are also found as dc's of triple compounds:

V(c) ‾‾‾‾‾‾‾ L
ttuuka-kuna-kuttǔukǎ   to come from there

(from where it begins)

S(c) ‾‾‾‾‾‾ K
muna-menǎ-kawiidi   in there those <u>which he has heard</u>

(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.
-menǎ-kawiidi (cf. kawiidi) is the last example is an instance of this.
Cf. also:

V(c) ‾‾‾ K ‾‾‾‾ F+
vaavǎ-mayatikidi oyyilǎ   <u>when it began</u> to boil (water)

iA   L ‾‾‾‾ F+   (1)
but semwǎana oyatikidi óssoonga it is now a child <u>who has begun</u>

Compare the similar occurrence of a high tone on the stabilziing pre-prefix
in Ìkazolele, 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.[1] 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 ttǒma llongókaanga 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, ttoma. -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 ssǎla they have done working

cf. bameěne   they have finished

The auxiliary -mene displays no vowel length, in contrast to the full verbal -meene (-man- finish).

vǒ / kenda kkiyǐla   that she might go and visit

cf. vǒ / 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 ssǎlaangá káka 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 sp.elling:

    lenda ffwǎ   he might die

cf. olleěnd' ǒffwa   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'.

(1)

Conversely, a second auxiliary in the form of an INV does show the
gemination representing the Class 15 prefix:

    oluta ttǒma llongǒkaanga he usually learns best

ttǒma displays no reduction of tt-.

Consonant clusters are also reduced:

    vaava-mbǒne ssǎla   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
    nkhǐ osǐnga vvǎanga?   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-vvu̧tukǎ   you must go back cf. ǒv-vutúka / v-vútuká

This is best described as the operation of Rule 2 initial modification,
since only the second potential high tone of vvu̧tukǎ is realized.
Comparison may be made with forms such as wamona-nkkęentǒ, 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

　　　osịnga-vvŭtuká　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 osịnga- (cf.

nkhĭ osínga vváanga?　in which osínga has high tone).　One bar to

analyzing as a compound here is that vvŭtuká has Variant 2 pattern,

not Variant 1, which is (ó)vvutúka.　All dc's of compounds hitherto

described have Variant 1 pattern, and if vvŭtuká were to be classified

as a dc. , it would form an exception.

I am therefore led to describe auxiliaries as notcompounded 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 constfucts 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?, $\boxed{\text{iL}}$ 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.

Unit label	Position	Phrasing
A		initial
B	post-nucleus	non-initial
C	post-nucleus	non-initial
C(c)	post-nucleus	initial
E	post-nucleus	initial
F	post-nucleus	non-initial
G	varies	initial
H	pre-nucleus	initial
J	varies	initial
K	post-nucleus	non-initial
L	post-nucleus	non-initial
M	post-nucleus	non-initial
N	post-nucleus	initial
Na	post-nucleus	non-initial
P	varies	initial
Pa	precedes K	non-initial

Table IV : Phrasing of syntactic units /ctd

Unit label	Position	Phrasing
Q	post-nucleus	non-initial
Q(c)	post-nucleus	initial
Q unlinked	post-nucleus	initial
R	post-nucleus	non-initial
R(c)	post-nucleus	initial
S	pre-nucleus	initial
	post-nucleus	non-initial
S(c)	post-nucleus	initial
T	pre-nucleus	initial
	post-nucleus	non-initial
T(c)	post-nucleus	initial
V	pre-nucleus	initial
	post-nucleus	non-initial
V(c)	post-nucleus	initial
X	pre-nucleus	initial
	post-nucleus	non-initial
Xa	post-nucleus	non-initial
Y	after L	non-initial
Y(c)	after L	initial
Beta	before Alpha	initial

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

Phrase-initial unit	Second component
A (pure verbal)	B any plus unit (F+, Q+, S+, V+)
iK iL	any unit
iA (nominal) A? (nominal)	L, K

2. Characterized by composition

Phrase-initial unit	Second component
A (pure verbal)	C, M, Na, T, X any minus unit (F-, Q-, S-, V-)
L	any unit (restricted range, includes K and X)
A (not iA or A?)	L, K, Ka

Note : this tabel 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 all 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 compoudning cuts acposs, 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 straight-forward 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 homophonous items can still be described as having different basic tonal structure. Invariable 'surface' distinction is not a necessary pre-prequisite 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 apprently similar phrases, combine to produce this impression upon one's first hearing the language spoken. (1)

---

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.[1] 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.

It is perhaps 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

i) single-nucleus sentences

A   nucleus

A?   nucleus headed by (atable) question item

B (C,E...) primary unit, defined in relation to nucleus[1]

—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

---

1.   Letters used are : B, C, E, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, X, Y.

ii) multi-nucleus sentences

∝ (Alpha)   nucleus ± primary units defined in relation to it

β (Beta)   unit other than Alpha

Pitch- and tone-marking

á   i) in item preceded by * = potential high tone

     ii) otherwise = realized high tone

ă   high tone realized at peak pitch

a̤   'unrealized' potential high tone (potential high tone realized as low tone)

a   potential/realized low tone

/   i) phrase boundary (not marked at beginning and end of citations)

     ii) divides citation of two tono-morphological variants

...   uncited material

----   (over cited Zombo) peakless phrase (in Chapter 1 only)

a   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[1]
cp	concord prefix
dc.	dominant component (of compound)
DN	dependent nominal
DNV	dependent nomino-verbal
EIP	extra independent prefix
H	high tone[1]
IN	independent nominal
INV	independent nomino-verbal
IV	Initial Vowel (of nominal)
L	low tone[1]
NA	nasal consonant plus additional element
NC	nasal + (non-nasal) consonant
$\emptyset$	zero
P.N.	personal name
p.p.	possessive prefix
SC	substitution class
sc.	subordinate component (of compound)
TC	tone-class
V	vowel[1]
V:	long vowel
Var.	Variant

1. Also occurs as unit label (see Syntactic unit notation above) but context indicates proper interpretation of symbol.

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For External Examiner

p. 284 (Bibliographical references):

Replace No. 13 by:

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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.

1.

```
 1
   A       ii        Q+1       2
                               ii(c) ———— L _____ Y
 osi̱nga-llongŏk' émphaangwa / yina-yivvăangwaang' élukáamba, /
 he will learn the making / the which is made the climbing-sling, /

       3           4                    5
         Q+2         ii(c) —— L _____ S(c)    (1)
       emmbata̱ / yina-yimmatwăanga / kună-ba, /
       the climbing / the which is climbed / up the palm-tree, /

       6           7                       8
         Q+3          ii(c) ———— L           É
       enkhulu̱muka / yina-yikkulŭmukwaanga, / yentsakă /
       the descent / the which is brought down, / and the throwing up /

               9
                 ii(c) ◄—— L _____ Y
               yina-yıssakwăang' elukáamba.
               the which is thrown up the climbing-sling.
```

(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

osi̱nga-llongŏk(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. kună-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'.

-llongŏka is a TCIII 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.

émphaangwa 'the making' : independent nominal of Class 9, TCI, heading
Q+, which requires non-initial position (unless unlinked) and Variant 1.
(Cf. Variant 2 mpháangwa.)   Peak pitch has already been taken by
the first realized high tone of the preceding verbal.

Phrase 2

yina-yivvăangwaang(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.

élukáamba '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 *elukáamba (Variant 2
lukáamba) ; 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

emmbata 'the climbing' : IN of TCIII (-CVCV stem), heading unlinked Q+.

Q+ requires Variant 1 (cf. Variant 2 umbatá, 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 emmbata 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-yimmatwǎanga 'the which is climbed   ' : compound of the same kind as

in Phrase 2, with r̃ponominal 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 verbas of this TC.   Here there is no elision of

final vowel.

Phrase 5

kunǎ-ba '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-ba / 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 emmbata,

Phrase 3.

Phrase 7

yina-yikkulŭmukwaanga '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

yentsakă '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-yissakwăang(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.

elukăamba 'the climbing sling' : Y unit, requiring Variant 1 and non-initial
position.   Cf. Variant 2 lukaámba.

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 émphaangwa 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.

1 V(c)	2 A	3 Q(c)	4 Q-2
Muna-mǎsika, / bǎtwaasaanga / myendo-myǎnkhuni, / madyǫokǒ, /			
In the evening, / they used to send / bundles of firewood, / manioc, /			

2.

5,———— 6 ———— 7,
Q-3 ————— E1 ————— E2
    ngubǎ, / yeyǎaka, / yeyǎaka.

pea-nuts, / and other (things), / and others.   (pea-nuts, etc., etc.)

Phrase 1

muna-mǎsika '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.)

    compinent of the compound shows the Variant la pattern (cf. Variant 2

    masíka), proper both to its function as dc. of a compound and as non-

    initial member of an appositional group.

Phrase 2

bǎtwaasaanga 'they used to send' : verbal of Tense 2, with continuative suffix

    attached ; radical of TCIy, cf. the INV ót-twaása 'to send'.   This is a

    pure verbal, standing as nucleus, with realization under Rule 2.

Phrase 3

myend-myǎnkhuni '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

madyọokŏ 'manioc, cassava' : unlinked Q- unit. Q- requires Variant 2,
*madyóokó, cf. Variant 1 emádyoóko ; 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

ngubǎ 'pea-nuts' ; 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

yeyǎaka 'and others' (Class 8) : E unit head, hence phrase-initial.
(e)yá-aka / ya-áka 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

yeyǎaka '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.

3.

1					
P —	L___Na	S-	ii — K	____ Q+	

Evvuụvu kyǎkala yaándi múnthaangwa yóóyo kátuungaang' onssaámpa, /

The hope that was with him in this time that he was building the hut, /

	2	3		4			5	
—	E(G:	A	)	iA	Q(G:	V(c)		

yovǒ / ssabǎ, / ikyǎssya vó -- / konsǒ-llumbu, /

and that (= or) / (it is a) shelter, / is of putting that -- / some day, /

6	7		8			
A[G:	A	N	ii— Q+	ii		

sě / kakala / yelaụ-dyǎmmona ndzaáza yákkaka, /

it is then / he may be / with the chance of seeing another ship, /

9

iii(c) __ L   ii(Bs) — Q+   ii ____ Q+   ii])

yina-yisǐnga kúmvvaán'elaú dyáttiinin' éssaánga kyáakína.

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

Evvuụvu kyǎkala 'The hope which was' : this may be described as a concatenate
sequence. Evvuụvu '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)vvuúvu (TCIII), and the IV is present. kyǎkala '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.

yaándi 'with him' : Na unit, non-initial. This is an item of pronominal
Series 10, which has no variants.

múnthaangwa '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 / ntháángwa '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.

kátuungaang(a) 'that he was building' : K verbal, non-initial position.
The radical is from TCI (cf. ót‿tuunga / t‿túunga 'to build') and
is here in Tense 2, with continuative suffix.   The elided vowel has
low tone, which is omitted.

onssaámpa 'the hut' : IN of Class 3, TCIII, filling Q+, which requires
Variant 1 and non-initial position ; cf. Var. 2 nssaámpa.   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

yovǒ '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

ssabǎ '(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 --→ ssabǎ,
cf. Var. 1 *essabá (Class 7, TCIII).

Phrase 4

ikyǎssya '(it) is of putting', i.e. '(it) is' : stabilized INV of Class

15, TCI, with possessive prefix, functioning as nucleus of the main
'to put'.
sentence. Cf. éssya / ssyá. The basic pattern of the unstabilized

item is fixed at *(e)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 onỹl 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

konsŏ-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. éllumbu / llúmbu. The high tone of ʹllumbu 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

sě 'it is then' : G unit head functioning as nucleus within primary Q(G).

Realization is under Rule 2, the only high tone being realized.

/sě/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

yelau̜-dyǎmmona '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.

ndzaáza 'ship' : IN (Class 9, TCIII), heading possessive complex in the
   Q- slot.   Variant 2, non-initial position.

yákkaka '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-yisǐnga kúmvvaán(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).

elaú 'the chance' : Q+ head, therefore Variant 1 and non-initial position.
   The IV of this nominal causes elision of the final vowel of preceding
   kúmvvaán(a), but aʋ both vowels have low tone, there is neither shift
   nor transference.

ɑyáttiinin(á) '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 *essaánga, hence éssaánga.

éssaánga 'the island' : IN (Class 7, TCIII) heading Q+; Variant 1, non-initial
   position.   The high tone transference has been explained in the previous
   note.

kyáakína 'that particular, that very' : pronominal of Series 8, second

 member of chain group, requiring Variant 1a 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 exponence.

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.

4.

```
   1          2            3      4              5
    iA   Q(G:       P        E[ G:    A    ii  ]      A         C[G:
   Íssya vó, / ẹnkhoombo / yovŏ / ngulu̧-yŏóyo / yăkalaanga vó /
   it is to put that, / the goat / or / it is this pig / was that/

      6            7       8            9
       iA         E{G:    A    ii}       J       ])
   sematŏongo, / yovŏ / nndii̧lŭ alúku / kwamwa̧lakăzi.
   it is then an accompaniment, / or / it is a help in eating of porridge/ to
                                                    the nursing mother.
```

(That is to say, this goat, or pig, was by way of being an accompaniment
to, or help in eating porridge for the nursing mother.)

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 Q 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 sentehce.   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 vó heading a G unit, in the
formal kímphovi (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 yovŏ 'and that, or', account for a great deal of
complex embedding.

5.

1	2	3	4
A	N ———— L	S(c)	ii(c) ——— L ———

Bǎkalaanga / yoma̧dya-mǎfwaana / kuna-kǐbaanga / mena-mǎtuukaanga /

They were / with food which was enough / at the kibanga / the which(=food)

came from

5			6	7	
——— S(c)	ii	iii	6 E ——— Qs	S(c)	ii

munǎ-ndzo zawaǎntu ǎkkaka / yo̧ttwaasa-mǒ / vanǎ-kutu dyakíbaanga.

in the houses of other people / and to bring it / on the company of the kibanga.

'They had at the kibanga sufficient food, which came from other people's houses and was brought to the company of the kibanga. (1))

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 E units extending verbals. When the structure has passive meaning, frquently 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 yo̧ttwaasa-mǒ 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 *yǒttwaása.

---

1.   For notes on the kibanga, see fn. 1 under 4.2.4.1., p.217.

6.

1			2			3	
P •——ii——— X			A	X		E	

Edyaambu dyŏŏdyo ozeévo / dyafiimpwaanga-dyaăka / yeffimpŭlulwa/

This matter therefore / was examined again / and re-examined /

4		5		6	
J ——ii——— E				ii(c)	

kwaẹsi-kaandă / yekinkhăki / kyamwan'-ănkkeénto.

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 kaandă ; 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 -mwan'- is (o)mwá-ana / mwa-ána 'child'. The compound means simply 'woman', not the literal rendering 'child of (a) woman'.

7.

1_X $\quad$ $2 \atop V(c)$ — K ____ Q(G: $3 \atop A$ $\qquad$ ii $\quad$)

Ozeěvo, / vaavă-tuvovele vó / nndungụnuka-zanssěedya, /

Therefore, / when (that) we have said that / it is the child's progress, /

$4 \atop iA$ $\quad$ Q(G: $\quad$ A 5 $\qquad$ F- ——— Q(G : 6 $\quad$ P* $\quad$ ii $\quad$ iii

Ïssya vó / tuzolele yyiÏndula kana vó / ekkadịlu kyamwǎan' endyóoyó -- /

it is to put that / we wish to consider whether that / the state of this child --/

$7 \atop A?$ $\qquad$ K ——— $8 \atop S(c)$ $\qquad$ ii $\qquad$ $9 \atop iii$

awěyi kinínaanga / muna-nndungŭnuka zavvúmi, / njyiÏndu, /

it is how that it is (for) / in the progress of 'vumi' [1], / thoughts, /

$10 \atop iv$ ——— $11 \atop E$ $\qquad$ $12 \atop ii$ ——— $13 \atop E$ $\qquad$ ii])

nthonǎ, / yeummbakŭuzi , / zzayÏ, / yengaạngu-zǎandi.

discrimiration, / understanding, / knowledge, / and his wisdom.

(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

$\qquad\qquad\qquad\qquad$ Rule 2 -- 1, 3, 5, 7, 9-13

Initial sequences : concatenate -- 4, 5?, 6, 7

$\qquad\qquad\qquad$ composite -- 3, 5?, 13

$\qquad\qquad\qquad$ 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-yyiÏndula.

---

1. ev-vúmi (Class 14) is the recognition of the different degrees of
respect due to fellow human beings, and to humans ịn 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 E 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.

8.

1	2		3	4
ⓑ	T(c) ii	iii⌐Q(G:	P———	E

Yé / muna-kkuma-kyǎssya vó / .Ntsiimba / yeNdzǔzi /

And / on account of the fact that / Ntsimba / and Ndzuzi /

5		6		7		
A	C⌐G: A	ii ⌐)	P(c)	ii	iii

bayǐndwiilwaanga vó / waan'-ǎssiimbi; / konso-njyiǐndu zámmbi /

were thought of that / they are sprite children, / any evil thoughts /

8	9	10			
——S(c)——— E	A	ii	iii——X

munǎ-se / yǒngudi / zifwete-ttoma-vvengǒmonwa kǎka.

in the father / and mother / must be studiously avoided.

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 .Ntsiimba, 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.

9.

1		2		3	4		
P1	ii	A		β	P2	ii	

Emwạanzi wóówo / wazěengwaanga, / iboosÍ / ebụula dyǎandi /

This root / was cut up, / and then / its bark (skin) /

5		6		7	8		
iA2		N(c)	K	C(G:	iA	)	

idyatǔutwaanga / yevaná-yıkıtukidi / ně / semffuǔmřu, /

is what was pounded / until it became /(it is)like / it is now powder, /

9	10	
β	A3	

iboosÍ / yayǎnikwaanga.

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 ně 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 ně as A within G, and itself introducing a G sub-unit, i.e. C(G:A[G: , on the pattern of sě, which is simultaneously A and G head. I find this rather unsatisfactory, however. ně 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.

10.

1	2	3	4	5
(G:	P	A	E 1 ii	E2

Avǒ / muụntu / kakala / yẹnnduunzu-ǎnttu, / yeffukǔtila, /

If / a person / were to be / with a head-ache, / and a cold, /

6	7	8
E3	E4	E5)

yemabiĭbi, / yomǎaka, / yomǎaka, /

and feelings of faintness, / and others, / and others, /

9	10	11
A Q+	(G ii :	A)

wǎvaangilwaang' ǎffutu / kịnu-maǎna / kavumbamena.

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, et.c̃, 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 hihg 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 maǎna 'those (matters)' and with ye- attached, as yakĭnu '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 can be stated with more certainty is that the phrase is a composite sequence, since maǎna 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*kínu is attested from its other context, yakínu. 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.

1		2		3		
A1	Qs	A2	Q(G:	A	R+	)

Watala-yŏ -- / wămona vó / yătolok' ekúulu.

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 composition with following Qs[1], whereas wămona 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, yătolok(a) is in concatenation with following R+.

1. Also analyzable as a single item, see p. 248 and notes to No. 5, Phrase 6.

12.

```
    1                2
    T(c)             P(c) ——— L ⌐——— F+⌐——— Q+      ii
    Muna-dyǎadí,/ konso-ǒyo wázolaang' ézzaáy' éssalu kyóokyó,/

    Because of this, / anyone who wanted to know this work,/
```

```
    3          4          5          6
         A     ( G   ii   :   A        N ——— L ——— Q+     ii  )
    wayěndaanga / kịnu-maǎna / kaziinga / yoyǎandi wázaayaang' éssalu kyóokyo.

    used to go / to the end that / he may live / with him who knew this work.
```

Initial realizations : Rule 2 -- 3 4, 6

                         (Phrase 5 has no potential high tone)

Initial sequences : concatenate -- 6

                          composite   -- 4

                          compound   -- 1 2

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.

13.

1	2			3			
P		A	F+	(G	X	Gii	:

Edyạadĭ / dyăkwamininaang' éssadílwa / kana-nkkutǔ vo -- /

This / continued to be practised / even if -- /

4	5			
P	iἰA(c)	M	)	

entsakạ / izau-azimosi-kwăandi.

the games / are exactly the same.

(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?

compound -- 5

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 shwon. Particle sequences however display no other behaviour.

The most interesting phrase is 5. Here the dominant component of the compound is the M unit kwăandi, which here displays a tone-pattern differing from that of its occurrences out of compound, kwaándi. It will be remembered that the pronominals of Series 1, which have two variants, display similar patterns : cf. (o)yáandi Var. 1(a) and yaándi Var.2. The pattern of kwăandi 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. kwăandi).

14.

1		2			3	
P —— X		A	ii	C(G:	A	)

Wạkkakǎ mphe / olenda-bbọokelwǎ vo / Makǒonko.

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.

1	2	3	4				
P	A(G:	A	S(c)	ii —— L___C [G:			

Ẹkkuma / kǎdi -- / wǎwutuka / munǎ-llumbu kyákala vó -- /

The reason / is because -- / he was born / in a day which was that -- /

5		6				
P	ii	A(c)	[K	Q+	ii	

ẹvvuku kyǎmmbwiila / muna-ttoma-ffwasǎ kiná -- émphatu zawóonsono /

a plague of locusts / it is in well and truly destroying that it is -- all the fields /

7		
S(c)	ii])	

muna-ntsǐ-aandi mvviímba.

in the whole of his country.

(...he was born at a time when a plague of locusts was engaged in ravaging all the cultivated fields throughout his country.)

Initial realizations: Rule 1 -- 1, 5

Rule 2 -- 2, 3

Initial sequences : concatenate -- 5

compound -- 4, 6, 7

For a note on kǎdi 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 G head it has no high tone : kadi.

Phrases 6 and 7 are headed by triple compounds.   Note the
occurrence of the auxiliary INV ttoma 'do well' as (second) sc.
of the compound in Phrase 6, cf. ttóma 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 (ppl 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
kiná 'that it is', which otherwise would have shown high tone shift :
kín' émphatu.

The A compound heading Phrase 6 is a group which is a member of the
T/SC.

1	2		3		
(G:	iA(c)	ii	S(c)	ii	iii

Ně / idina-tulěnda mmóna / muna-nndongǒkelo zayínndende yamakaánda

As / it is that we may see / in the learning of children of races

iv	v	)	4 P(c)	5 E(c)	ii X

mawoónsono mamúndza, / konso-kǐnndende, / yekonso-muǔntu ǎkkaká mpne, /

all of in the world, / every child, / and every other person also, /

6 A	C	V+	ii	iii	iv

okkalaanga-nnlongǒki éllumbu yawóonsono yazziíngu kyáandi.

remains a learner all the days of his life.

(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 **ně** 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.

1	2			3			
ß	P*	ii	iii	A?	K	ii	C

Kaǎnsi, / ẹmphutwiilǔ zamphilá yóóyo -- / awěyi zilénda kkadíla zasíkila?

But, / answers of this sort -- / it is how that they can be (for) correct?

(But, how can answers of this sort be correct?)

Initial realizations : Rule 1 -- 2

Rule 2 -- 1, 3

Initial sequneces : 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 *awéyi? '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:

nkkumbu-myayĭingi   'many times, often' is realized as

nkkum'-myayĭingi

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 kímphovi 'mastery of language, pratory',
e.g.

V(c)⁻ K __C(G: P   A   F+)
vaava-kinǎ vo / oyạandi / oyǎtikidi ottoná

when it is that / he / has begun to distinguish

rather than

V(c)   Pa⎺⎺⎺⎺⎺⎺⎺K _____F+
vaav'oyǎandi kayatikidi ottoná

when he has begun to distinguish

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' ŏmaámbu 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 váangu (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

nkhúumbu (Class 9) 'name' as well as for nkkúumbu (Class 3) 'time, occasion'.   Some writers however make a distinction by writing the latter as n'kumbu or ñkumbu.

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)

		literally	compare
ngudi-ănkhazi	maternal uncle	mother of relations	éngudi/ngúdi
se-dyănkkeénto	paternal aunt	father of woman	óse/sé
mwan'-ănkkeénto	girl, daughter	child of woman	omwáana/mwaána
mmbuta-zaăkeénto	old ladies	elders of women	émmbuta/mmbúta
mwan'-ayakăla	boy, son	child of male	omwáana/mwaána
mpfumu-ăvata	village chief	chief of village	émpfumu/mpfúmu
mpfumu-akaănda	clan chief	chief of clan	"
ndzambi-ămphuungu	supreme God	God of highest	ondzáambi/ndzaámbi
ndzambi-anaăna	frivolity	god of eight	"
nkkumbu-myayĭingi	often	times of manyness	énkkuumbu/nkkúumbu
nthangwa-zawŏonsono	always	times of allness	énthaangwa/ntháangw
asadisi-ămmbote	super-helpers	helpers of goodness	oásadísi/asádisí
ndzo-ănthete	first house	house of first	éndzo/ndzó
lumingu-lwamvviĭmba	entire week	week of wholeness	(o)lumiíngu
ntsusu-amwălakázi	nursing mother's chicken	chicken of nursing mother	éntsusu/ntsúsu

		compare
malengě-maandi	his pumpkins	(o)maleénge
ngudĭ-zaandi	their mothers	éngudi/ngúdi
yakalădyaame	my husband	(e)yakála
mwaná-aandi	his child	omwáana/mwaána
madyá-maandi	his food	omádya/madyá
akulŭ-eeto	our ancestors	oákulu/akúlu

Note that nkhĭ? it is what? is always compounded with following possessive:

nkhi-ănthaangwa?	what time is it?	it is what of time?	(Ĭnkhi?/nkhĬ?)
nkhi-ămffunu?	what use is it?	it is what of use?	
nkhi-ăssalu?	what work is it?	it is what of work?	
nkhi-amphilă?	what sort is it?	it is what of sort?	

but not with following IN without possessive prefix:

nkhĬ nndwaáka kallwaákaanga? it is what arrival that he arrives?

(what is the nature of his arrival?)

b) IN + IN in appositional group:

		literally	compare
ngo-mwǎana	afterbirth	mother-child	éngwa/ngwá
zulŭ-nkhulu	first-born	sky-alder	(e)zulú
nkhamǎ-vwa	nine hundred	hundreds a ninesome	énkhama/nkháma
ngonde-naǎna	eight months	months an eightsome	engóonde/ngoónde
funda-dimosĬ	one thousand	a thousand a single one	efúunda/fuúnda
llumbu-kimosĬ	one day	a day a single one	éllumbu/llúmbu
makum'-mǎya	forty	tens a foursome	omákuúmi/makúumí
makum'-moolě	twenty	tens a couple	"

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-kimosĭ
(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-kĕllumbu   day by day

    (-a)mphila-mumphilă   (of) verious kinds (lit. kinds in kinds)

    ndzila-ndzĭla   stripes (lit. paths-paths)

    yiyole-yiyolĕ   in pairs (lit. a twosome a twosome) cf. eyiyoolĕ

(2)
c) nominal + X particle   :

    kyankkobo-kĭkilu   extremely tough (lit. of toughness indeed)

    dyammbote-beĕni   very good (lit. of goodness very)

    ammbuta-kăka   elders only

    akkakă-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-ŏwo   something like that (lit. some thus)

    konsŏ-ngudi   every mother

    konsŏ-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:

    P   A   K
   ẹllumbu / kịbi-wiĭzidi   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 bec se (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-myǎkoondwa (nthalú) times which lack (number) = (count)less times

cf. énkkuumbu/nkkúumbu

waantu-ǎleembama   gentle people (lit. people who have become gentle)

akiti-ǎfulalala   successful traders

awoonso(nc)-awwǔtukaánga   all who are born

f) IN + M (pronominal of Series 12):

impfumu-kwǎandi   he is in fact the chief   cf.   émpfumu/mpfúmu

and   kwáandi/kwaándi

yikwa-kwǎandi (káka)   (only) a few in fact   cf.   eyíkwa/yikwá

and   kwáandi/kwaándi

g) ttuuka- 'since, from' + IN:

ttuuk'-ěnthaangwa   from the time   cf. óttuúka/ttúuká

tuuk'-ěngutuúka   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

yandǐ-ngudi	she the mother	cf.	oyáandi/yaándi
yau-ǎkulu	they the ancestors		oyáau/yaáu
zaǔ-vwa	they a ninesome		ozáau/zaáu
dyau-adimosǐ	it the same (matter)		edyáau/dyaáu
yandi-nndokǐ	he the ill-wisher		oyáandi/yaándi

(ii) + **vo** (Class 14 only):

waǔ-vo   since, because (lit. thus that <u>or</u> now that) **cf.** owáau/waáu

b) Series 2/3 pronominal : (i) + IN (appositional group):

<div align="center">literally</div>

vanǎ-nthaandu   on the top   on there the top

kuna-mǎzaandu   to markets   to there the markets

munǎ-ndzo   in the house   in there the house

<div align="center">(ii) + L or K verbal :</div>

<div align="right">literally</div>

dina-dinǎ_aŋga	**the which is (L)**	that one which is
dina-kǎzola	the which he wanted (K)	that one he wanted
ndyon'-ozeeye	who knows (L)	that one who knows
menǎ-kazeeye	the which he knows (K)	those which he knows
yevanǎ-mikitukidi	until they have changed	w_ith then that they have
	(K)	changed

<div align="center">(iii) + nominal functioning as Pa to a K verbal</div>

(c)   Pa   ii   K   ii

min'-oyǎandi nkkitǐ kasǐnga kweěnda

<u>the which he</u> the trader will go

Q₍c)   Pa   K

din'-oyěeto tuzeeɟe   <u>the which we know</u>

c) Series 4 pronominal : (i) + possessive :

edi-dyavveěnga	about avoiding	this (matter) of avoiding
eki-kyǎllaamba	that of cooking	this (task) of cooking
oma-mazziǐngu	concerning life	these (matters) of life
oma-makyěese	the happiness	these (matters) of happiness
owu-wankhadǐlu	concerning the	thus of character
	character	

(ii) L or K verbal:

<div align="right">literally</div>

edi-dyalǎandilaanga	what followed (L)	this which followed
edi-kǎzola	what he wanted (K)	this which he wanted
edi-ditutwěese	that has brought us(L)	this which has brought us
ekǏ-kisiidi	what remained	this which remained

d) Series 7 (Class 16 only) : (i) + K verbal:

<div align="right">literally</div>

vaav'-oḷweěke	when you arrive	then that you have arrived
vaavǎ-kawiidi	when he hears	then that he has heard
vaav'-ǒmweene	when you see	then that you have seen
vaava-kamǎna	when he finished	then that he finished

(ii) + IN standing as Pa to K verbal:

vaav'-omwǎana kayatikidi	when the child has started
vaav'-ǎkulu éeto bǎsadilaanga	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-akaǎnda   he the clan chief

yau-akulǔ-eeto   they our ancestors

konso-ffu-kyǎmmbi   any bad habit

konš-mpfumu-ǎvata   each village chief

nkhi.- compounds may not however be preceded by another sc.

1(b) : IN + IN :   yandi-zulǔ-nkhulu   he the first-born

1(d) : IN + X particle: yau-akulǔ-mphe   they the ancestors also

1(e) : IN + L verbal: konso-ffulu-kyǎluunzaanga   any place which was

painful

2(b) : Series 2/3 pronominal + IN:

ttuuka-munǎ-nitu from inside the body

2(c) : Series 4 pronominal + possessive:

muna-owu-wǎvviimpi as far as health   is concerned

Series 4 pronominal + L/K verbal:

konso-ekǏ-kisiidi   anything that remained

konso-oy(o)-ǒzeeye 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 nkhǐ? 'it is what?'
and awěyi '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

        nkhǐ osínga vváanga?   it is what that you are going to do?

or in a compound   of which the question item is subordinate component:

    nkhi-ǎnthaangwa besínga llwaáka?   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
the peculiarity of the final rise on e? (1)   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:

> osịnga-lleĕnd' ómmon' e?   will you be able to see?
>
> osịnga-lleĕnd' ómmona   you will be able to see

iii) Questions without either question item or particle have the peak at
a higher pitch than $\wedge$ corresponding non-questions; sometimes, as in type (i),
the peak is at breaking-point.   Further, there is no fall on a final
high tone:

> tuyyạtĭk' óssalu omásika máamá?   shall we begin the work this afternoon?
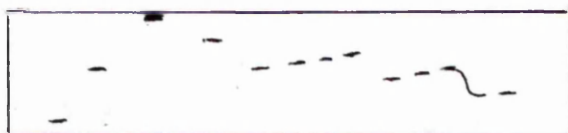
cf.   tuyyạtĭk' óssalu omásika máamá we shall begin the work this afternoon
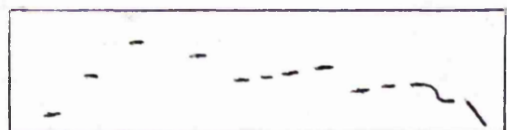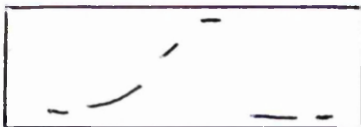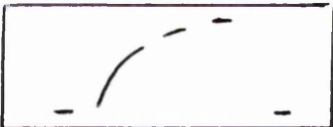
Appendix V

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 $\left[\diagup \right]$ and the 'plateau' or 'convex' contour $\left[\frown \right]$.
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:

P   ii
edyaambu dyănkuumbu   the matter of the name (Rule 1 modification)

iA   ii
idyaambu-dyămmbi   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 ịntsi-ănnene kíkilu 'it is
an extremely large country' showed rise on the first vowel (ị-) 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 (Nthǎandu).   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 certains groupes syntaxiques s'établit un "pont tonal" entre
les syllabes hautes de deux ou de plusieurs formes.' (1)
An example (p. 20) is:

    ←——→
  batádídí bakhóombo   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:

  A   Q-
  batạdidi-nkhǒombo   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 braŏd 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-:

| e-vata | village | e-ffulu | place/s |
| o-mavata | villages | e-ndzo | house/s |

b) nominal class prefix which may have one of the following shapes:

zero (∅)	:	∅-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)

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-)
>
> (1)
>
> nkhuumbu   name   (Class 9, prefix NA-   , here realized as n-
>
>   and aspiration of -k- of the stem -kuumbu)

c) <u>nominal stem</u>, ending always with a vowel, beginning with consonant
or vowel:

> ma-vata   villages   (stem -vata)
>
> ma-ambu   words   (stem ambu)

d) <u>stem augment</u> : 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

(2)

a special shape of prefix before an augment.

> ki-mm-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 -nd- 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-njyiindu 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 -aau to which

is attached a class marker of the typical shape C- :

(o)yaau they (Class 2, 3rd person)

(e)dyaau 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, eena 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 V_2 and b) e- for classes with -i is V_2. The Initial

Vowel is a repetition of V_1 :

(o)owa these (Class 2)

(e)edi this (Class 5)

(o)owu thus (Class 14)

Series 5 : as Series 4, but V_2 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

<u>Series 11</u> : shape aCeyi, -C- being a class marker:

> adyeyi?   which? (in Class 5)
>
> aweyi?   how?   (in Class 14)
>
> akweyi?   where? (in Class 17)

<u>Series 12</u> : kwa- attached to pronominal stem as for Series 9, with assimilation of vowel quality as for the p.p.

<u>Note</u>: the stems of Series 9, 10 and 12 are described as identical; they are however only so from the point of view of <u>shape</u>. Series 9 differs <u>tonally</u> 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) <u>pre-prefix</u> : shape (C)V-.

      i-wavaanga <u>he is</u> the one who did, <u>it is</u> he who did

      se-kammona <u>it is then</u> that he will see

      u-dikkadilaanga <u>it is thus</u>/<u>how</u> that it is (for)

Pre-prefixes are limited to L and K verbals.

ii) <u>concord prefix</u> : shape zero, CV-, C- or V-. Some zero prefixes are free variants of vocalic prefixes.

      (o)-zolele <u>you</u> (sg) want

      ma-mmoneka <u>they</u> (Class 6) will be apparent

      m-amoneka <u>they</u> (Class 6) appeared

      y-amona <u>I</u> saw

(C in this context includes semi-vowels.)

iii) <u>pre-radical tense sign</u> : shapes range from zero to -VCV-.

      tu-∅-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) <u>object infix</u>, one of a set of six, restricted to persons of Classes

    1 and 2.   Shapes are -C-, -V-, and -CV-, including consonant clusters

    under -C-, but not semi-vowels.

          twa-s-seva   we laughed at <u>you</u> (sg)

          twa-a-seva   we laughed at <u>them</u> (Class 2)

          twa-nu-seva   we laughed at <u>you</u> (pl)

          ba-nt-seva   they laughed at <u>me</u>

          ba-ns-seva   they laughed at <u>him</u> (<u>her</u>)

   Object substitutes of other nominal classes are not infixes.

v) <u>verbal radical</u> : minimum shape -C-.   The radical may be <u>simplex</u>

    (unextended) or include one or more of a number of verbal extensions,

    i.e., be <u>extended</u>.

          ya-vaang-a   I did, I made   (-vaang- do, make)

          dya-vaangw-a it was made   (-vaangw- be made)

          ya-vaangilw-a I was made for, had made for me

                                          (-vaangilw- be made for)

vi) <u>final vowel</u> : -a or -i.   This is part of the tense sign.

          untsoong-i   tell me

          wantsoong-a you told me

vii) <u>perfect suffix</u> : 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 insome cases there is fusion of

    radical and suffix.

tuzol-ele   we have desired (= we want) ; radical -zol-

dimonek-ene it has appeared ; radical -monek-
                                               (1)
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-elo   he has been laughed at ; cf. osev-ele he has laughed

ovaang-iilu he has been made for ; cf. ovaang-iidi he has made for

viii) <u>continuative suffix</u> : shape -VngV, V harmonizing ith 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.)'.

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1. The sequence *li 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.

(1)

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 (2) . 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 pluperfec

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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, kazziinga 'he actually did live' (which was unexpected in the circumstances).

5. cp - a - radical - perfect suffix (continuative suffix) :

    Past Perfect (Continuous)

    dy-a-monek-ene   it had been seen, was seen

    dy-a-monek-ebe-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-yele   we had gone

    tw-a-yele-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. keenda) let him go

8. cp - u - 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-bwíila / b-bwíilá 'to befall'; and óm-mona / m-móna 'to see' but
óm-monéka / m-móneká '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 TCs 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.)

Tense 1.   cp - C / ku - radical - a (anga) : Future (present)

a) without object infix or continuative suffix

	A	L	K	Class 15 INV	TC
he will hear	ówwa	ówwa	kawwá	ow-wa /w-wá	I
he will see	ómmona	ómmona	kammóna	óm-mona / m-móna	I
he will tell	óssoonga	óssoonga	kassóonga	ós-soonga / s-sóonga	I
he will give	ovváaná	ǫvváaná	kavváaná	óv-vaána / v-váaná	Iy
he will help	ossádisá	ossádisá	kassádisá	ós-sadísa / s-sádisá	Iy
he will wait for	ovvíingilá	ovvíingilá	kavvíingilá	óv-viingíla / v-víingilá	Iy
he will remember	ossúngamená	ossíngamená	kassúngamená	ós-sungaména / s-súngamená	Iy

(reversed final variants for all patterns with two high tones)

	A	L	K	Class 15 INV	TC
he will carry	onnatá	onnatá	kannatá	(o)n-natá	III
he will teach	olloónga	olloónga	kalloónga	(o)l-loónga	III
he will require	ovvaáva	ovvaáva	kavvaáva	(o)v-vaáva	III
he will visit	okkiyfla	okkiyfla	kakkiyfla	(o)k-kiyfla	III
he will replace	ovvíingila	ovvíingila	kavvíingila	(o)v-víingila	III
he will forget	ovvilákana	ovvilákana	kavvilákana	(o)v-vilákana	III

b) without object infix, with continuative suffix attached

	A	L	K	Class 15 INV	TC
he hears	owwáangá	owwáángá	kawwáangá	ów-wa / w-wá	I
he sees	ommónaangá	ommónaangá	kammónaangá	óm-mona / m-móna	I
he tells	ossóongaangá	ossóongaangá	kassóongaangá	ós-soonga / s-sóonga	I
he gives	ovváan aangá	ovváan aangá	kavváanaangá	óv-vaána / v-váaná	Iy
he helps	ossádisaangá	ossádisaangá	kassádisaangá	ós-sadísa / s-sadísá	Iy
he waits for	ovvíingilaangá	ovvíingilaangá	kavvíingilaangá	óv-viingíla / v-víingílá	Iy
he remembers	ossúngamenaangá	ossúngamenaangá	kassúngamenaangá	ós-sungaména / s-súngamená	Iy

(all forms have reversed final variants)

	A	L	K	Class 15 INV	TC
he carries	onnatáanga	onnatáanga	kannatáanga	(o)n-natá	III
he teaches	olloóngaanga	olloóngaanga	kalloóngaanga	(o)l-loónga	III
he requires	ovvaávaanga	ovvaávaanga	kavvaávaanga	(o)v-vaáva	III
he visits	okkiyílaanga	okkiyílaanga	kakkiyílaanga	(o)k-kiyíla	III
he replaces	ovvíingilaanga	ovvíingilaanga	kavvíingilaanga	(o)v-viíngila	III
he forgets	ovvilákanaanga	ovvilákanaanga	kavvilákanaanga	(o)v-vilákana	III

c) with object infix, without continuative suffix

	A	L	K	Class 15 INV	TC
he will hear us	okutúwa	okutúwa	kakutuwá	ôw-wa / w-wá	I
he will see us	okutúmona	okutúmona	kakatumóna	ôm-mona / m-móna	I
he will tell us	okutúsoonga	okutúsoonga	kakutusóonga	ôs-soonga / s-sóonga	I
he will give us	okutuváaná	okutuváaná	kakutuváaná	ôv-vaána / v-váaná	Iy
he will help us	okutusádisá	okutusádisá	kakutusádisá	ôs-sadísa / s-sádisá	Iy
he will wait for us	okutuvfingilá	okutuvfingilá	kakutuvfingilá	ôv-viingíla / v-vfingilá	Iy
he will remember us	okutusúngamená	okutusúngamená	kakutusúngamená	ôs-sungaména / s-súngamená	Iy

(all forms with two high tones have reversed final variants)

	A	L	K	Class 15 INV	TC
he will carry us	okutunátá	okutunátá	kakutunátá	(o)n-natá	III
he will teach us	okutulóongá	okutulóongá	kakutulóongá	(o)l-lóonga	III
he will require us	okutuváavá	okutuváavá	kakutuváavá	(o)v-vaáva	III
he will visit us	okutukfyllá	okutukfyllá	kakutukfyllá	(o)k-kiyfla	III
he will replace us	okutuvfingilá	okutuvfingilá	kakutuvfingilá	(o)v-vfingila	III
he will forget us	okutuvflakaná	okutuvflakaná	kakutuvflakaná	(o)v-vflákana	III

(all forms have reversed final variants where given as L-H)

d) with object infix and continuative suffix

	A	L	K	Class 15 INV	TC
he hears us	okutuwáangá	okutuwáangá	kakutuwáangá	ów-wa / w-wá	I
he sees us	okutumónaangá	okutumónaangá	kakutumónaangá	óm-mona / m-móna	I
he tells us	okutusóongaangá	okutusóongaangá	kakutusóongaangá	ós-soonga / s-sóonga	I
he gives us	okutuváanaangá	okutuváanaangá	kakutuváanaangá	óv-vaána / v-váaná	Iy
he helps us	okutusádisaangá	okutusádisaangá	kakutusádisaangá	ós-sadísa / s-sádísá	Iy
he waits for us	okutuvfingilaangá	okutuvfingilaangá	kakutuvfingilaangá	óv-viingíla / -vfingilá	Iy
he remembers us	okutusúngamenaangá	okutusúngamenaangá	kakutusúngamenaangá	ós-sungeména / s-súngamená	Iy
he carries us	okutunátaangá	okutunátaangá	kakutunátaangá	(o)n-natá	III
he teaches us	okutulóongaangá	okutulóongaangá	kakutulóongaangá	(o)l-loónga	III
he requires us	okutuváavaangá	okutuváavaangá	kakutuváavaangá	(o)v-vaáva	III
he visits us	okutukíyilaangá	okutukíyilaangá	kakutukíyilaangá	(o)k-kiyíla	III
he replaces us	okutuvfingilaangá	okutuvfingilaangá	kakutuvfingilaangá	(o)v-víngila	III
he forgets us	okutuvílakanaangá	okutuvílakanaangá	kakutuvílakanaangá	(o)v-vílákana	III

(all patterns have reversed final variants)

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'.

Tense 2.   cp - a - radical - a (anga) :   Narrative Past (Continuous)

a) without object infix,(with) without continuative suffix

	A	L	K	TC of INV
he heard (used to hear)	wáwa(anga)	wáwa(anga)	káwa(anga)	I
he saw (used to see)	wámona(anga)	wámona(anga)	kámona(anga)	I
he told (used to tell)	wásoonga(anga)	wásoonga(anga)	kásoonga(anga)	I
he gave (used to give)	wávaana(anga)	wávaana(anga)	kávaana(anga)	Iy
he helped (used to help)	wásadisa(anga)	wásadisa(anga)	kásadisa(anga)	Iy
he waited for (used to wait for)	wáviingila(anga)	wáviingila(anga)	káviingila(anga)	Iy
he remembered (used to remember)	wásungamena(anga)	wásungamena(anga)	kásungamena(anga)	Iy
he carried (used to carry)	wanáta(anga)	wanáta(anga)	kanáta(anga)	III
he taught (used to teach)	walóonga(anga)	walóonga(anga)	kalóonga(anga)	III
he required (used to require)	waváava(anga)	waváava(anga)	kaváava(anga)	III
he visited (used to visit)	wakíyila(anga)	wakíyila(anga)	kakíyila(anga)	III
he replaced (used to replace)	wavfingila(anga)	wavfingila(anga)	kavfingila(anga)	III?
he forgot (used to forget)	wavflakana(anga)	wavflakana(anga)	kavflakana(anga)	III

b) with object infix, (with) without continuative suffix

	A	L	K	TC of INV
he heard (used to hear) us	watúwa(anga)	watúwa(anga)	katúwa(anga)	I
he saw (used to see) us	watúmona(anga)	watúmona(anga)	katúmona(anga)	I
he told (used to tell) us	watúsoonga(anga)	watúsoonga(anga)	katúsoonga(anga)	I
he gave (used to give) us	watúvaana(anga)	watúvaana(anga)	katúvaana(anga)	Iy
he helped (used to help) us	watúsadisa(anga)	watúsadisa(anga)	katúsadisa(anga)	Iy
he waited for (used to wait for) us	watúviingila(anga)	watúviingila(anga)	katúviingila(anga)	Iy
he remembered (used to remember) us	watúsungamena(anga)	watúsungamena(anga)	katúsungamena(anga)	Iy
he carried (used to carry) us	watunáta(anga)	watunáta(anga)	katunáta(anga)	III
he taught (used to teach) us	watulóonga(anga)	watulóonga(anga)	katulóonga(anga)	III
he required (used to require) us	watuváava(anga)	watuváava(anga)	katuváava(anga)	III
he visited (used to visit) us	watukíyila(anga)	watukíyila(anga)	katukíyila(anga)	III
he replaced (used to replace) us	watuvfiingila(anga)	watuvfiingila(anga)	katuvfiingila(anga)	III
he forgot (used to forget) us	watuvflakana(anga)	watuvflakana(anga)	katuvflakana(anga)	III

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).

Tense 4.   cp - radical - perfect suffix (continuative suffix) ; Present Perfect (Continuative/Pluperfect)

N.B.   Illustration is limited to radicals with unfused suffix.

a) without infix or continuative suffix

	A	L	K	INV of Class 15
I have heard	ngwiidi	ngwiidi	ngwiidi	ów-wa / w-wá
he has heard	(o)wiidi	(o)wiidi	kawiidi	
I have looked	nthadidi	nthadidi	nthadidi	ót-tala / t-tála
he has looked	(o)tádidi	(o)tadidi	katadidi	
I have left	ntsiisidi	ntsiisidi	ntsiisidi	ós-siisa / s-siisá
he has left	(o)siisidi	(o)siisidi	kasiisidi	
I have prepared	nkhubikidi	nkhubikidi	nkhubikidi	ók-kubíka / k-kúbiká
he has prepared	(o)kúbikidi	(o)kubikidi	kakubikidi	
I have laughed	ntsevele	ntsevéle	ntsevéle	(o)s-sevá
he has laughed	(o)sevéle	(o)sevéle	kasevéle	
I have required	mbvaavidi	mbvaávidi	mbvaávidi	(o)v-vaáva
he has required	(o)vaávidi	(o)vaávidi	kavaávidi	
I have thought	mmbadikidi	mmbadíkidi	mmbadíkidi	(o)b-badíka
he has thought	(o)badíkidi	(o)badíkidi	kabadíkidi	

b) with infix, without continuative suffix

	A	L	K	INV of Class 15
I have heard you	inuwíidi	inuwíidi	inuwíidi	ǧw-wa / w-wá
he has heard you	unuwíidi	unuwíidi	kanuwíidi	
I have looked at you	inutádidi	inutádidi	inutádidi	ót-tala / t-tála
he has looked at you	unutádidi	unutádidi	kanutádidi	
I have left you	inusfisidi	inusfisidi	inusfisidi	ós-sifsa / s-sfisá
he has left you	unusfisidi	unusfisidi	kanusfisidi	
I have prepared you	inukúbikidi	inukúbikidi	inukúbikidi	ók-kubfka / k-kúbiká
he has prepared you	unukúbikidi	unukúbikidi	kanukúbikidi	
I have laughed at you	inusévele	inusévele	inusévele	(o)s-sevá
he has laughed at you	unusévele	unusévele	kanusévele	
I have required you	inuváavidi	inuváavidi	inuváavidi	(o)v-vaáva
he has required you	unuváavidi	unuváavidi	kanuváavidi	
I have thought of you	inubádikidi	inubádikidi	inubádikidi	(o)b-badíka
he has thought of you	unubádikidi	unubádikidi	kanubádikidi	

c) without infix, with continuative suffix attached

	A	L	K	INV of Class 15
I had heard	ngwiidiinge	ngwiidiinge	ngwiidiinge	ów-wa / w-wá
he had heard	(o)wiidiingé	(o)wiidiinge	kawiidiinge	
I had looked	nthadidiinge	nthadidiinge	nthadidiinge	ót-tala / t-tála
he had looked	(o)tádidiingé	(o)tadidiinge	katadidiinge	
I had left	ntsiisidiinge	ntsiisidiinge	ntsiisidiinge	ós-siisa / s-siisá
he had left	(o)siisidiingé	siisidiinge	kasiisidiinge	
I had prepared	nkhubikidiinge	nkhubikidiinge	nkhubikidiinge	ók-kubika / k-kúbiká
he had prepared	(o)kúbikidiingé	(o)kubikidiinge	kakubikidiinge	
I had laughed	ntseveleenge	ntsèvéleenge	ntseveleenge	(o)s-sevá
he had laughed	(o)sevéleenge	(o)sevéleenge	kaseveleenge	
I had required	mbvaavidiinge	mbvaávidiinge	mbvaávidiinge	(o)v-vaáva
he had required	(o)vaávidiinge	(o)vaávidiinge	kavaáávidiinge	
I had thought	mmbadikidiinge	mmbadíkidiinge	mmbadíkidiinge	(o)b-badíka
he had thought	(o)badíkidiinge	(o)badíkidiinge	kabadíkidiinge	

d) with object infix and continuative suffix

	A	L	K	INV of Class 15
I had heard you (pl)	inuwîidiinge	inuwîidiingé	inuwfiidiingé	ów-wia / w-wiá
he had heard you	unuwfiidiingé	unuwfiidiingé	kanuwfiidiingé	
I had looked at you	inutádidiinge	inutádidiingé	inutádidiingé	ót-tala / t-tála
he had looked at you	unutádidiingé	unutádidiingé	kánutádidiingé	
I had left you	inusîisidiinge	inusîisidiingé	inusîisidiingé	ós-siísa / s-siísá
he had left you	unusîisidiingé	unusîisidiingé	kanusîisidiingé	
I had prepared you	inukúbikidiinge	inukúbikidiingé	inukúbikidiingé	ók-kubíka / k-kúbiká
he had prepared you	unukúbikidiingé	unukúbikidiingé	kanukúbikidiingé	
I had laughed at you	imuséveleenge	inuséveleengé	inuséveleengé	(o)s-sevá
he had laughed at you	umuséveleengé	umuséveleengé	kanuséveleengé	
I had required you	inuvaavidiinge	inuváavidiingé	inuváavidiingé	(o)v-vaáva
he had required you	unuváavidiingé	unuváavidiingé	kanuváavidiingé	
I had considered you	inubadikidiinge	inubádikidiingé	inubádikidiingé	(o)b-badíka
he had considered you	unubádikidiingé	unubádikidiingé	kanubádikidiingé	

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.

katuvaaná káka   that he may give us only

(1)

cf.   katusoonga-kăka   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).

Tense 8. cp - a - radical - a : Subjunctive

a) without object infix		b) with object infix		TC of INV
he may hear	kawa	he may hear us	katuwá	I
he may see	kamona	he may see us	katumóna	I
he may tell	kasoonga	he may tell us	katusóonga	I
he may give	kavaana	he may give us	katuváana	iY
he may help	kasadisa	he may help us	katusádisá	Iy
he may wait for	kaviingila	he may wait for us	katuvíingilá	Iy
he may remember	kasungamena	he may remember us	katusúngamená	Iy
he may carry	kanata	he may carry us	katunatá	III
he may teach	kaloonga	he may teach us	katulóonga	III
he may require	kavaava	he may require us	katuváává	III
he may visit	kakiyila	he may visit us	katukíyíla	III
he may replace	kaviingila	he may replace us	katuvíingila	III
he may forget	kavilakana	he may forget us	katuvilákana	III

Appendix IX

Auxiliary verbals

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	yadį-wŏ kúvvaanaangá I would have given it to you
-ende, -ele go and	...vó / kenda-kkiyĭla that/she may go and visit
-fwete should, ought	fwete-kkală she must be
-iza, -izidi come and	kafwete-kwiza-wwaăna she must come and find
-kala, -kedi be	waaŭna kakédi ddyáangá while he was eating
-kutukwa (or -utukwa)	
be liable to	onttǫto / ukutųkwa-bbwă dyaáka
	the earth / is liable to fall down again
-kwaama keep doing	wakwaama-ssălaangá káka he just kept on working
-lembi, -lembele not do	avŏ / sęlembele-ddyăatá if / it is now that he
	has failed to walk (if after all he hasn't...)
-lenda may, might	onssęedya / lenda-ffwă the baby / might die
-luta, -lutidi rather,	
usually do	olųta-ttŏma llongókaanga he usually learns best
-mana, -mene have done	vaav'-omĕne ssála when you have done working
-nkhwa might do	bankhwa-ddiĭkilwa they might be poisoned
-sala, -sidi manage to,	ketusįdi-wwă ko we have never yet heard
ever do	

(1)

(2)

---

1. Note composition over three items of the verbal group here.

2. Found only in negative constructions in the data.

-singa shall, will do   isịnga-vvŭtuká I shall return

                                                                  (1)

-teka, -tekele do first   fwete-ttẹka-ssukŭla you must first wash

-toma, -tomene do well,   toma-vvwaǎnda   sit properly

  properly, a lot,

  naturally, of course

-vita, -vitidi do previously   ně / ịtuvitidi-vvŏva kalá as / we have

                                            already stated before

-vika happen by chance,   ně / sẹvika-ssyǎ vo although

  fertunately, unexpectdely   (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:

      ikwẹnda-ttǎla 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:

                                                        (2)

      ukutụkwa-bbwǎ dyaáka it might fall (-kutukwa or -utukwa)

---

1. Composition over three items.

2. Laman gives -kutwa; Bentley has no equivalent. Bentley admits

as axuiliaries 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:      P ── X        iA )
kadi / loolŏ mphe / ilwăkala  because / this also / is what was
```

```
 P      A(G:    A          C   )
ekkuma / kădi /kyakala-kyăzuungwa  (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 kădi (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 *kádi --- kadi
for the first case, implying Rule 1 modification, does not accord with the
general position.

Occurrence of kădi 'it is because', i.e., as a nucleus, appears to be
limited to the context of ekkuma 'the reason' as P ; it is in the nature
of a fixed expression.   Nor may any item intervene between the two ;
if ekkuma heads a P unit containing other items, the nucleus is not kădi:

```
 P      Pa ──────────K _____N                iA(c)        ii ── Q
ekkuma yăandi ... kenĕnaanga / yofinjyiĭndu / ... / imună-kkuma kyássya vó
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 *kádi
(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 / ĭkazolele 'it is what he wants' (iK)

(also / dină-kazolele 'the which he wants' (c)).

CONSONANT REINFORCEMENT AND KONGO MORPHOLOGY

BY

HAZEL CARTER

CONSONANT REINFORCEMENT AND KONGO MORPHOLOGY

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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]

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[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
j 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.

CONTENTS

The material is arranged under the following headings :

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 :

se (he is a) father   sse (it is a) colour

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.

yammmona I saw him

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 :

yammona 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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[3] ' Long ', ' intensified ' or ' double ' consonants appear in other Bantu languages, where they seem to be syllabic. See for instance J. Jacobs, ' Long consonants and their tonal function in Tetela ', *Kongo-Overzee*, XXIII, 3–4, 1957, 200–12 ; H. P. Blok, ' Iets over de zogenaamde " geïntensiveerde " fonemen in het Ganda en Nyoro ', *Kongo-Overzee*, XVII, 3, 1951, 193–220 ; E. O. Ashton, E. M. K. Mulira, E. G. M. Ndawula and A. N. Tucker, *A Luganda grammar*, London, 1954, 10–12. Zoombo reinforced consonants are not syllabic (see section 3.0 below).

TABLE I

THE CONSONANTS OF ZOOMBO

	Bilabial/ labio-dental	Alveolar/ palato-alveolar	Palatal	Velar
Voiced plosives	b	d	(j)	(g)
Voiceless plosives	p	t		k, kk*
Voiced fricatives	v/β	z/ʒ		
Voiceless fricatives	f	s/ʃ		
Nasals	m	n	(ɲ)	(ŋ)
Lateral		l		
Semi-vowels			y	w

*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 z before i, and ʃ is a free variant of s before i ; both are found
   in R form
ɲ (palatal) and ŋ (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,[4] 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

| b/bb | yabaka | I seized | (No. 1) |
| | yabbaka | I did seize | (No. 2) |

The duration of the bilabial closure is ·1 sec. for b and ·2 sec. for bb.

| k/kk | ikono | it is the stop/chapter | (No. 3) |
| | ikkono | it is the portion | (No. 4) |

Duration of the closure for the velar plosive is approximately ·1 sec. for k and ·3 sec. for kk.

| s/ss | ise | it is the father | (No. 5) |
| | isse | it is the colour | (No. 6) |

The period of friction seen on the spectrograms shows that the sibilant is longer for ss, approximately ·25 sec., while s has approximately ·15 sec. duration.

| m/mm | yamona | I saw | (No. 7) |
| | yammona | I did see | (No. 8) |

The duration of the nasal is ·5 sec. for m and 1·0 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.*)

| w/ww | wawa | you heard | (No. 9) |
| | wawwa | you did hear | (No. 10) |

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, wáwwâ high-high falling.— *Author's note.*)

(ii) N + RC/N + combination containing no RC

| mbb/mmb | imbbu | it is the sea | (No. 11) |
| | immbu | it is the mosquito | (No. 12) |

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

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	**inkkuumbu**	it is the time	(No. 13)
	inkhuumbu	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	**wansseva**	he laughed at him	(No. 15)
	wantseva	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 **wantseva**. 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 **wantseva**.

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

mm/mm	**yammona**	I saw him	(No. 19)
	yammona	I saw you	(No. 20)

Duration of the nasal is 1·2 sec. for **mm** 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.

unṇ/unn	ikunṇata	I shall carry him
	ikunnata	I shall carry you

In unṇ the vowel has prominent nasality ; in unn the vowel has much less. Differences in the quality of these two vowels were also observed. In unṇ the vowel has almost the quality of [ə] 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	sse	(it is) a colour
(*b*) Intervocalically	yasseva	I did laugh
(*c*) After nasals	yansseva	I laughed at him
(*d*) Before voiced plosives	wammbona	he saw me

RC's in a combination are always homorganic to the adjacent element of the combination :

mbb, mpp, mvv, mff, mṃ	(bilabial and labio-dental)
ndd, ntt, nzz, nss, nṇ, nll	(alveolar and palato-alveolar)
ṇyy	(palatal)
nkk, nww	(velar)

Reinforced nasals (RN's) occur before voiced plosives :

mmb, nnd (but not *nnj, *nng)

Plain and reinforced variants of k are found in lexical items :

| yakala | I was (stem -kala), past narrative tense |
| yakkala | I denied (stem -kkala), past narrative tense |

Where kk occurs in conditions where other consonants are subject to R, there is no contrast between plain kk and reinforced kk :

| yakkala | I certainly was (stem -kala), past emphatic tense |
| 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	kuendela	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 -end(el)a ' go (for) ' and -iz(il)a ' 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 C_1/V_1 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 :

imbbu	stem -bu (No. 11)
inkkuumbu	stem -kuumbu (No. 13)
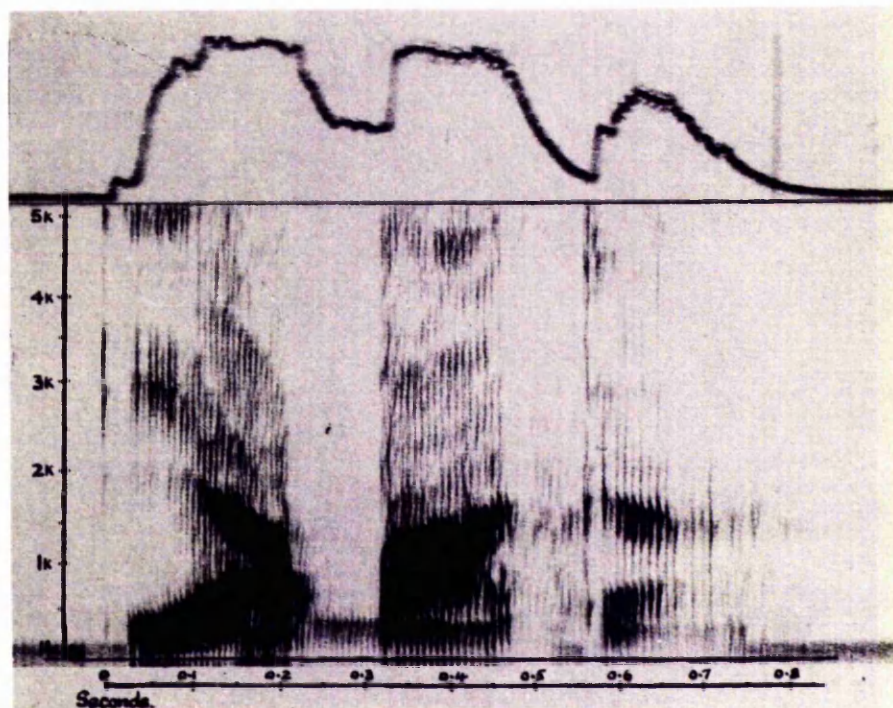
PLATE I

1. yabaka   (I seized)
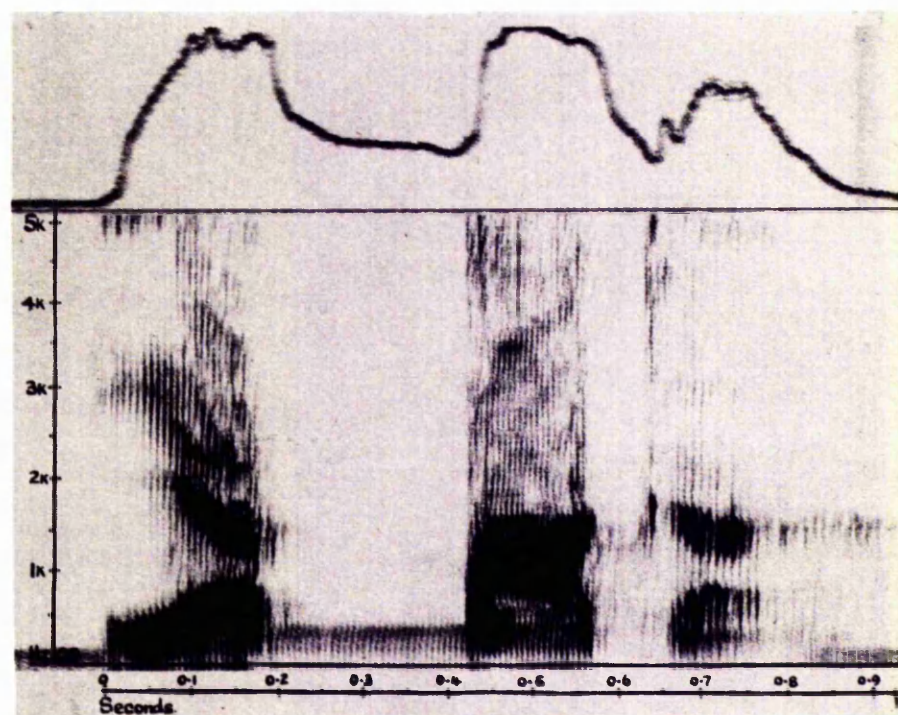
2. yabbaka   (I did seize)

PLATE II
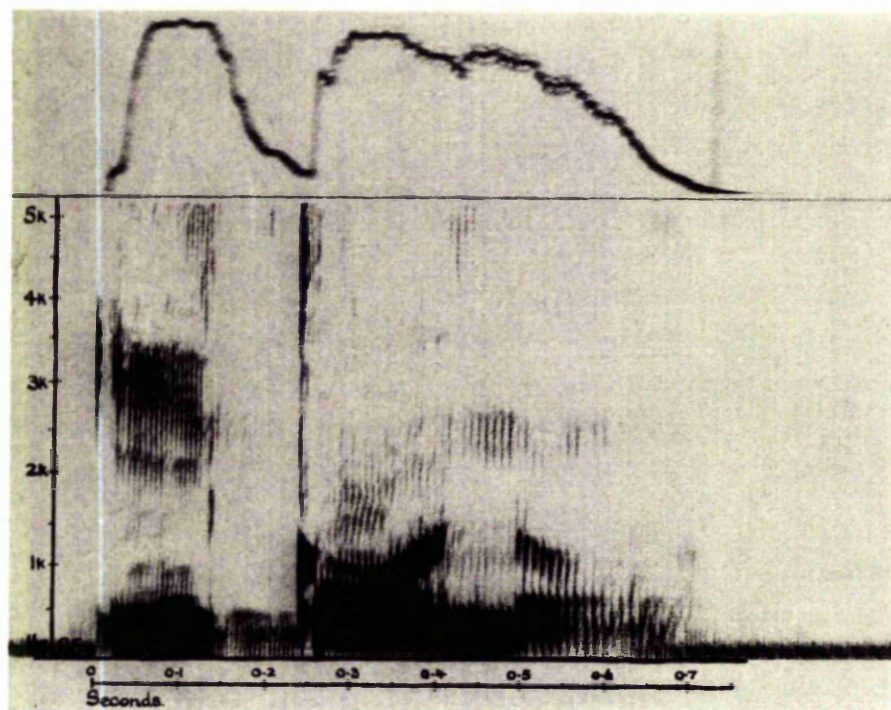
3. ikono   (it is the stop chapter)
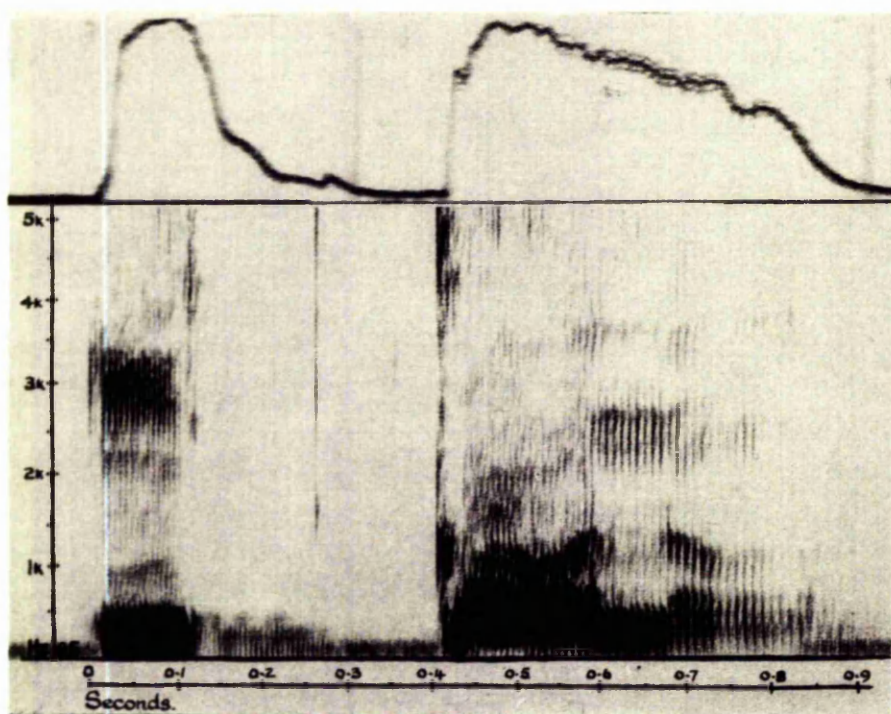
4. ikkono   (it is the portion)
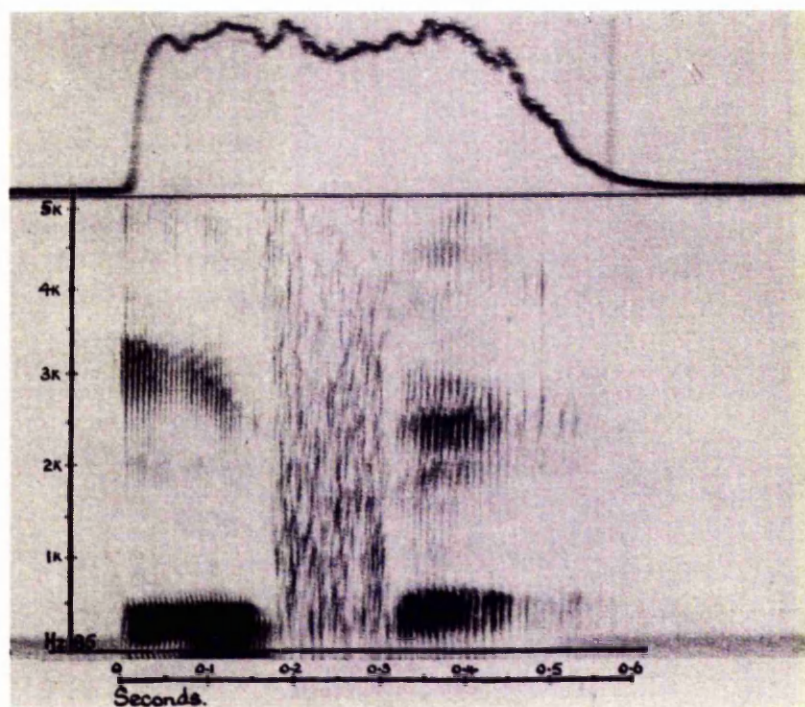
PLATE III

5. ise   (it is the father)
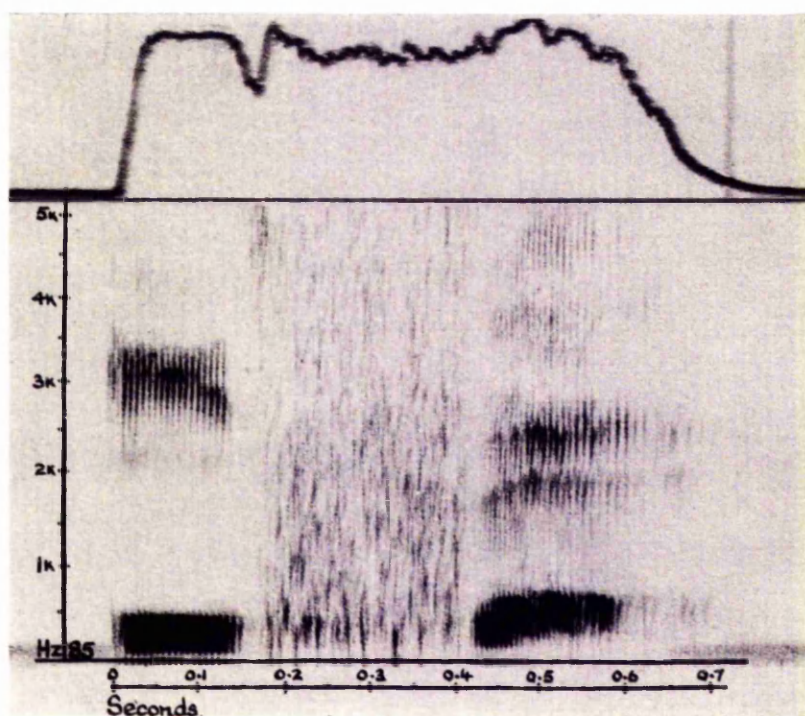
6. isse   (it is the colour)

PLATE IV
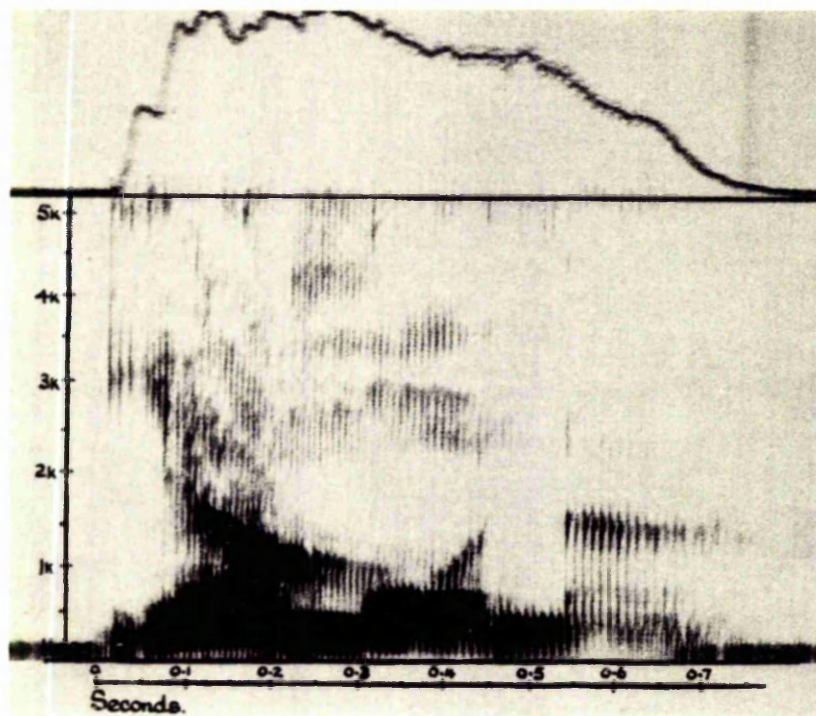
7. yamona   (I saw)
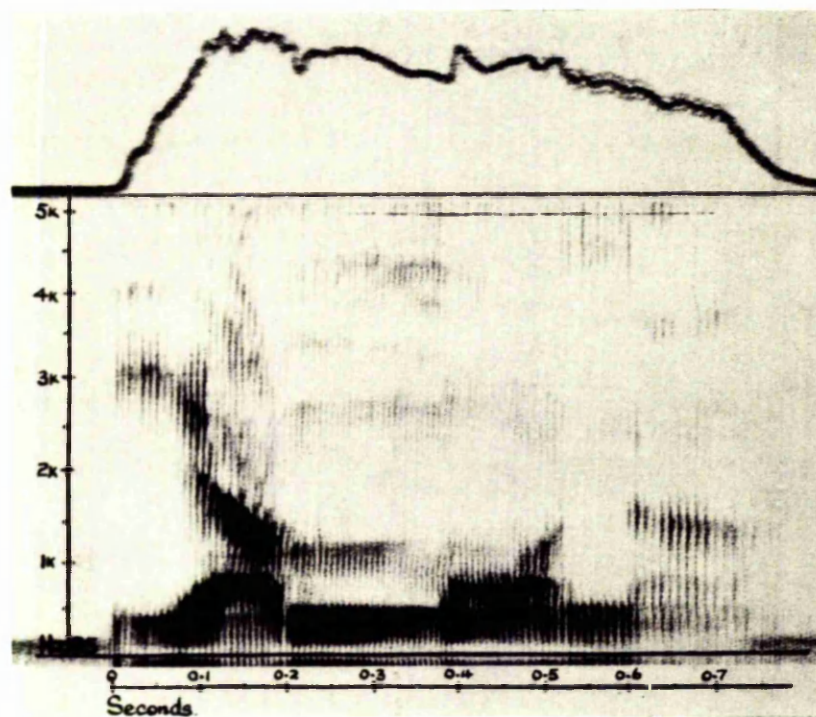
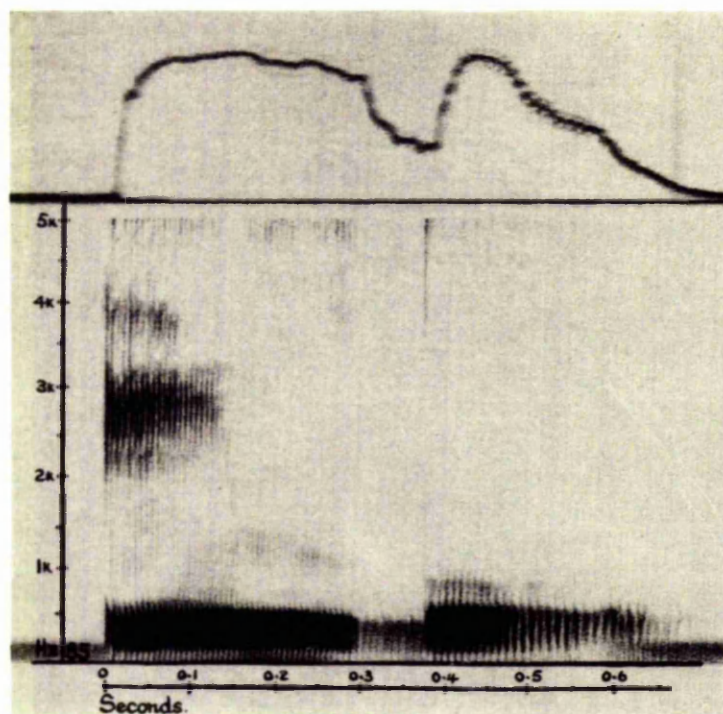8. yammona   (I did see)
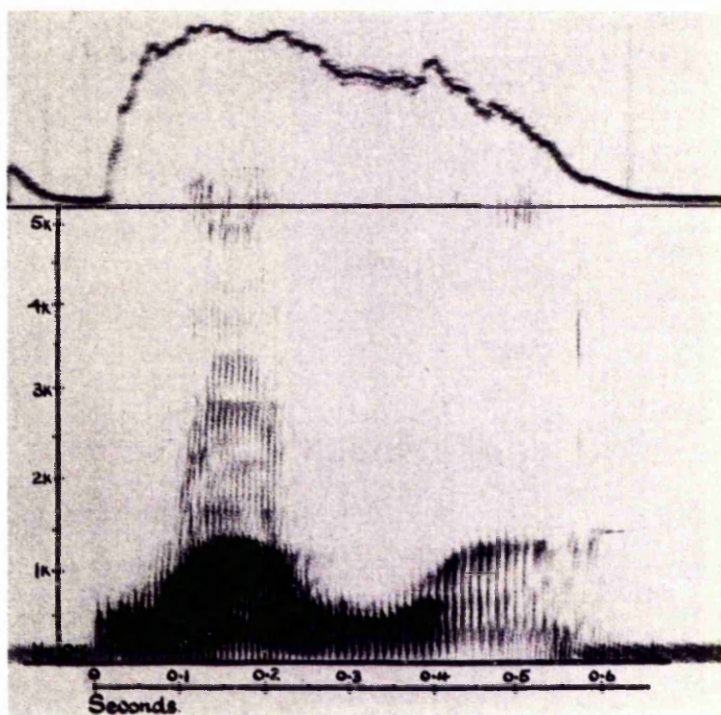
PLATE V
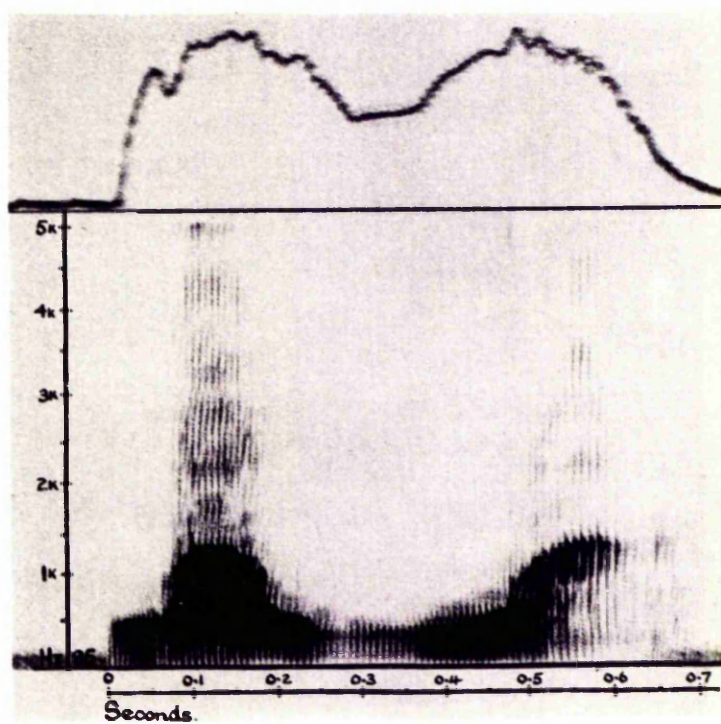
9. wawa   (you heard)
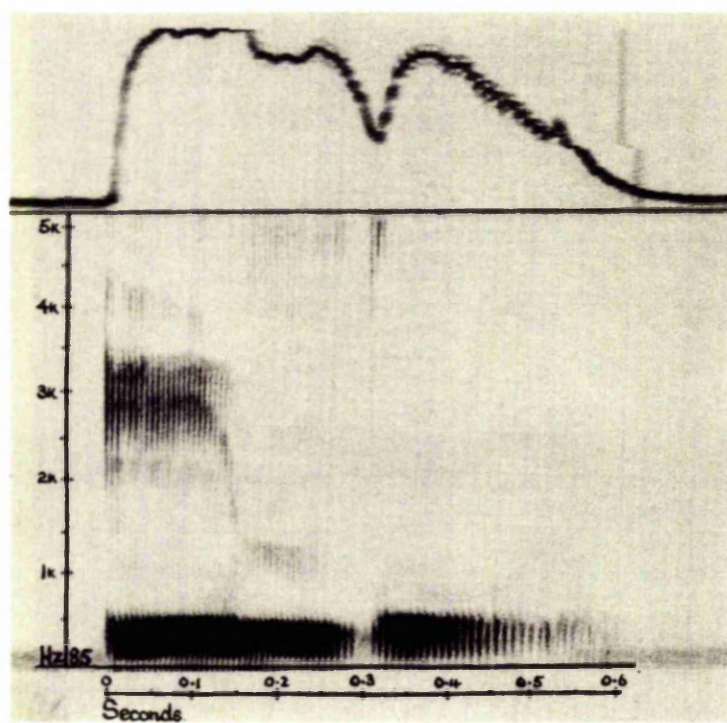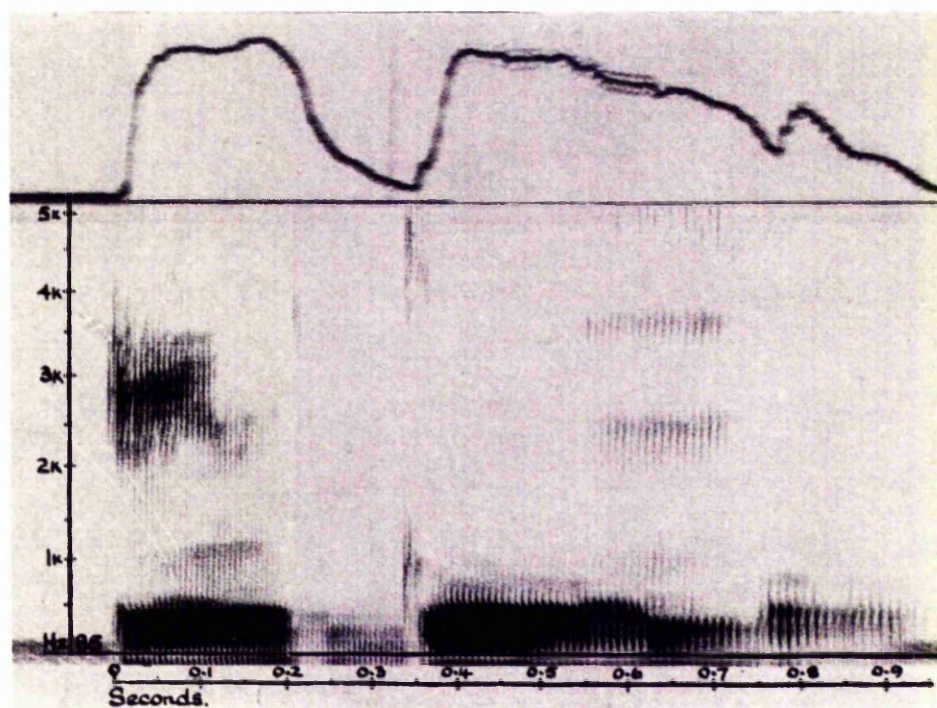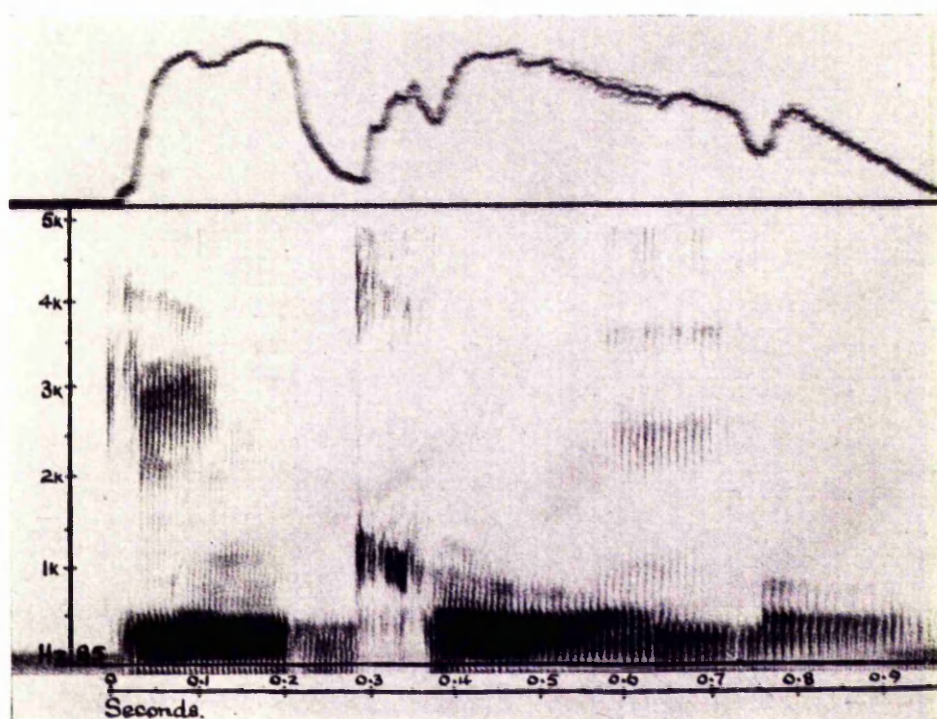

10. wawwa   (you did hear)

PLATE VI

11. imbbu (it is the sea)
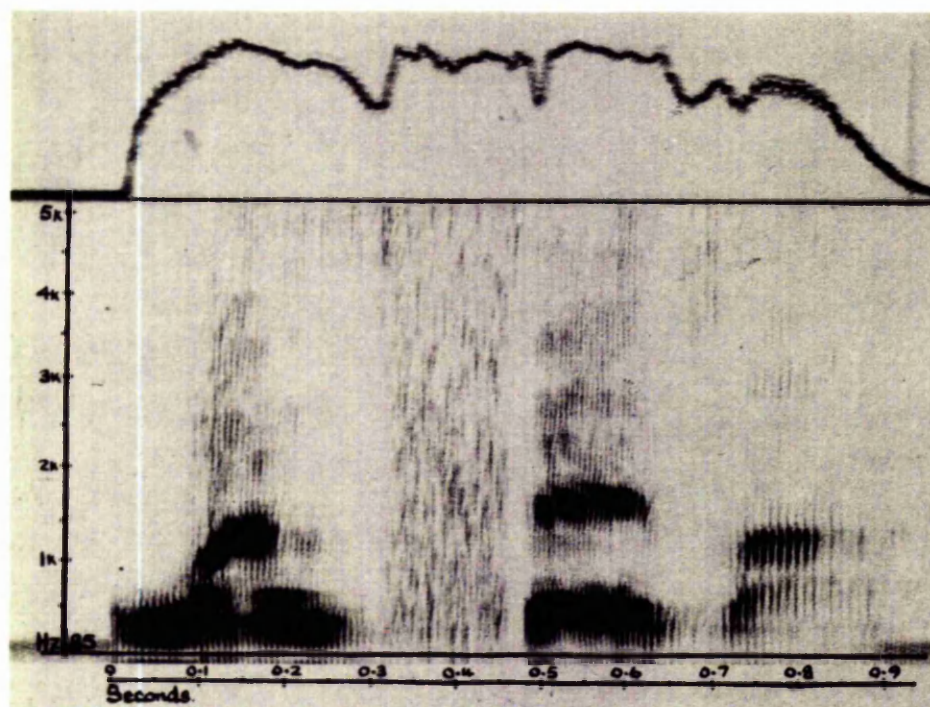

12. immbu (it is the mosquito)
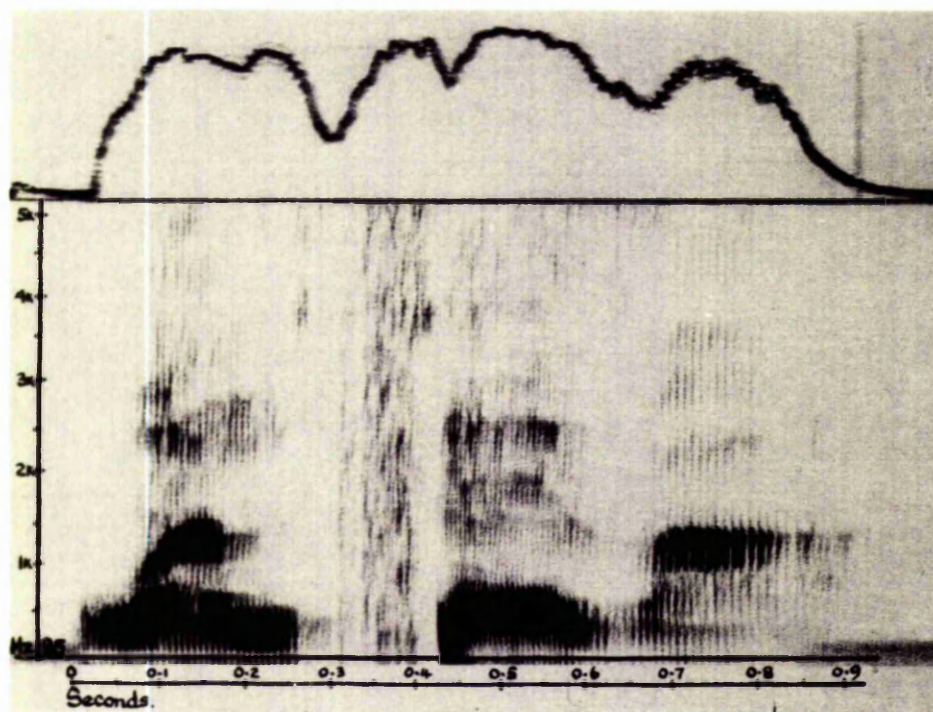
PLATE VII

13. inkkuumbu (it is the time)

14. inkhuumbu (it is the name)

PLATE VIII

15. wansseva   (he laughed at him)

16. wantseva   (he laughed at me)

PLATE IX
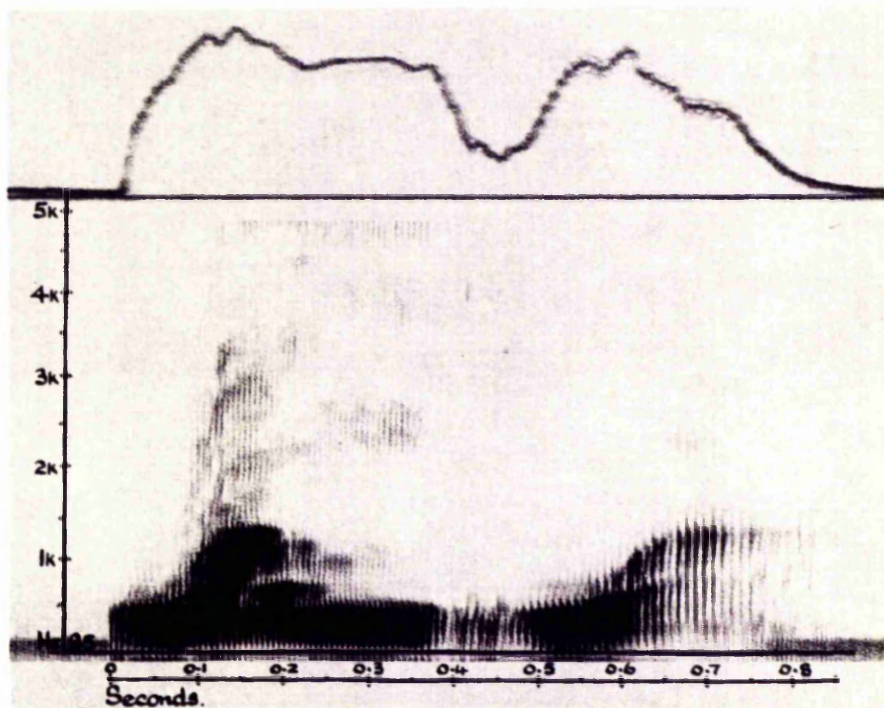
17. wanwwa   (you heard him)
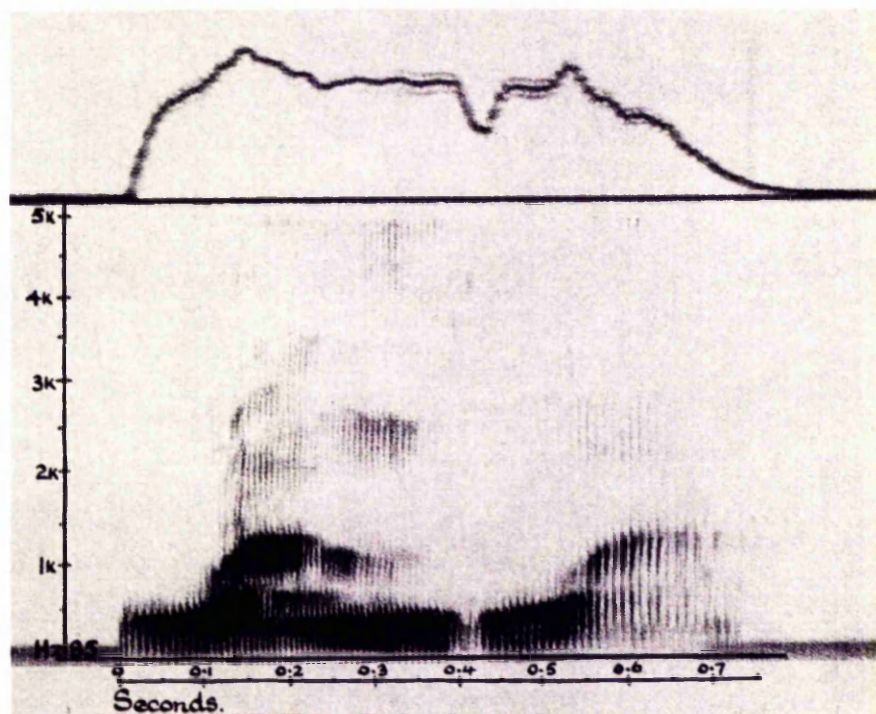
18. wangwa   (you heard me)

PLATE X
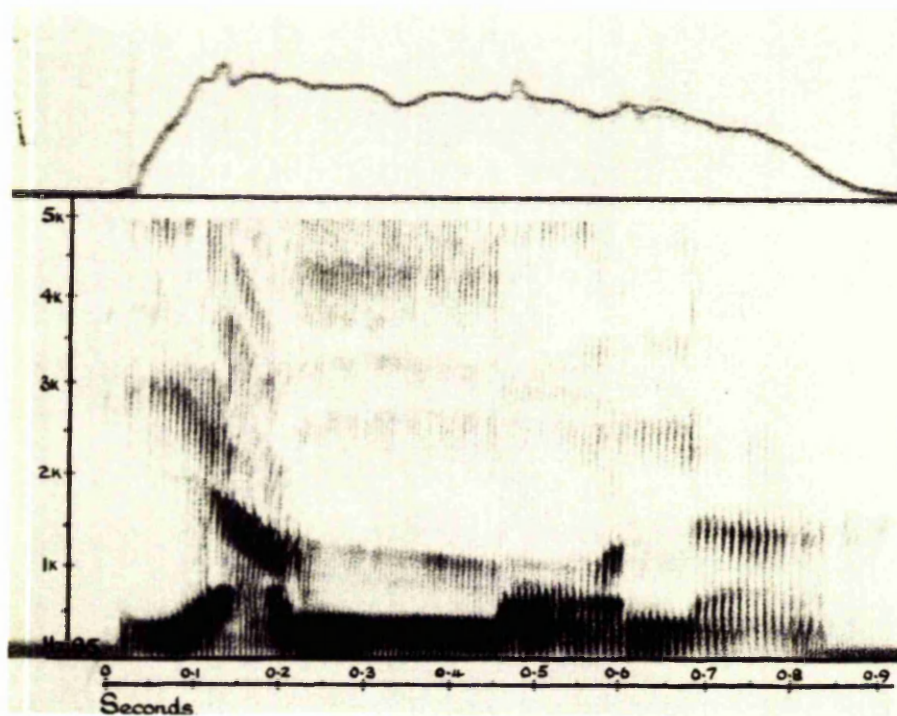
19. yammona   (I saw him)
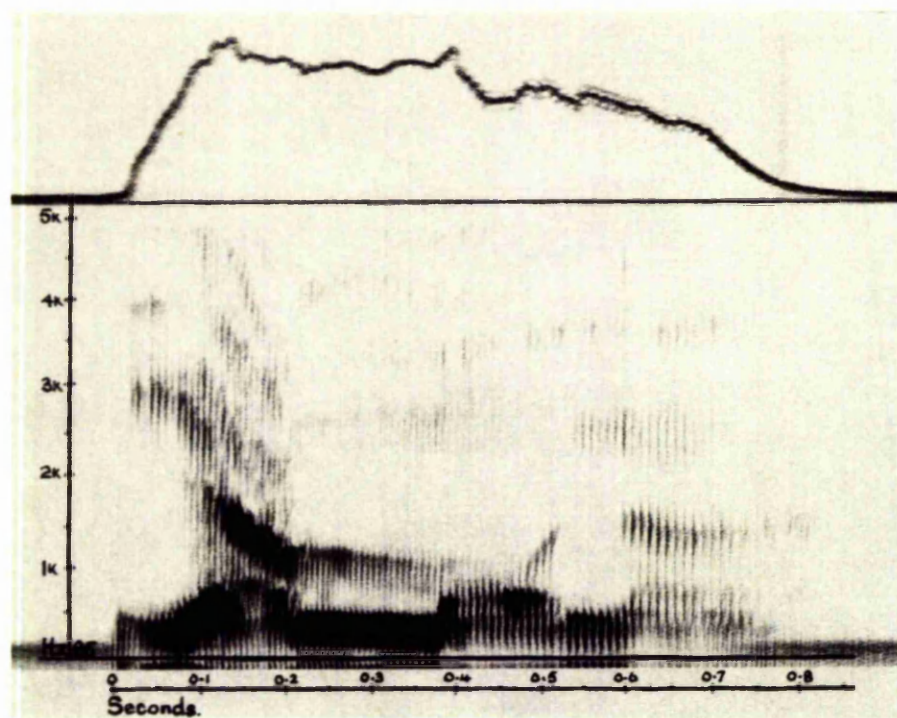
20. yammona   (I saw you)

wansseva	verb stem -seva laugh (No. 15)
wanwwa	verb stem -wa hear (No. 17)
yammona	verb stem -mona see (No. 19)

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
yannata	I carried him ; verb stem -nata
nlloongi	teacher ; stem -loongi, 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
nndya	act of eating ; cf. -dya eat
nthala	act of looking ; cf. -tala look
mphova mbvova	act of speaking, statement ; cf. -vova speak
wandzola	he loved me ; cf. -zola love
wampfila	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

njyala	act of spreading ; cf. -yala spread
ngazi	palm-nut, stem? -azi
ngolo	strength ; stem? -olo
ngudi	mother ; stem? -udi
ngwuta	act of giving birth ; cf. -wuta give birth

The third element here takes a variety of forms, e.g. :

Aspiration *after* C	inkhuumbu, nthala
Voiceless plosive, between N and C and homorganic to both	wantseva, wampfila
Voiced plosive, between N and C/V and homorganic to both	wangwa, mbvova, wandzola, njenda, njiza, njyala, ngazi, ngolo, ngudi, ngwuta
R of the nasal	mmbaka, nndya
R of the nasal, and replacement of l by d	wanndoonga

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 : **nnd**, 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 : mm̩
NA + d, n, l : nnd, cf. NR + d : ndd ; NR + n : nn̩ ; 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

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[5] E.g. J. Vandyck, *Etude du Kikongo*, Tumba, undated, p. 8. Vandyck calls the nasal equivalent to N of NR- ' nasale forte . . . Cette nasale porte l'accent dynamique et forme syllabe '. Also A. Seidel and I. Struyf, *La langue congolaise*, Paris, 1910, p. 10 : ' *m* et *n*, quand

TABLE II

NA- COMBINATIONS

(i)   NA + voiced plosive :   A realized as R of the nasal

$$NA + \begin{array}{ll} b & : \textbf{mmb} \\ d & : \textbf{nnd} \end{array}$$

(ii) NA + voiceless plosive :   A realized as aspiration after C

$$NA + \begin{array}{ll} p & : \textbf{mph} \\ t & : \textbf{nth} \\ k & : \textbf{nkh} \\ kk & : \textbf{nkh} \end{array}$$

(iii) NA + fricative, semi-vowel, vowel :   A realized as plosive after nasal, homorganic to the following sound and harmonizing with it in voice

$$NA + \begin{array}{ll} v & : \textbf{mbv/mph} \text{ (see note)} \\ z & : \textbf{ndz} \\ f & : \textbf{mpf} \\ s & : \textbf{nts} \\ y & : \textbf{njy} \\ i & : \textbf{nji} \\ e & : \textbf{nje} \\ w & : \textbf{ngw} \\ a & : \textbf{nga} \\ o & : \textbf{ngo} \\ u & : \textbf{ngu} \end{array}$$

(iv) NA + nasal, lateral :   A realized as R of nasal and C replaced by voiced homorganic plosive

$$NA + \begin{array}{ll} m & : \textbf{mmb} \\ n & : \textbf{nnd} \\ l & : \textbf{nnd} \end{array}$$

Note.—**mbv** has an alternative **mph**. In most words this is a free variant : **mbvova/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 ' syllabicity ' 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 :

wansseva he laughed at him (sometimes pronounced **wãsseva**)

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:

nkhuumbu name (sometimes pronounced **khuumbu**)

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.

Nos. 7 and 8 show two tenses, one with R as part of the tense sign and the other without R :

yamona	I saw (past narrative tense, sign -a- -a)
yammona	I did see (past emphatic tense, sign -aR- -a)
	verb stem -mona see

Similarly Nos. 9 and 10 :

wawa	you heard (past narrative, sign -a- -a)
wawwa	you did hear (past emphatic, sign -aR- -a)
	verb stem -wa hear

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 :

yayenda	I went (past narrative)
yakuenda	I did go (past emphatic)
yammona	I did see (past emphatic, no object infix)
yakunumona	I did see you (pl.) (past emphatic, object infix -nu- ' you (pl.) ')

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 :

yamona	I saw
yammona	I saw you (sg.) (infix -R-)

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)		(ii)	
yayyendela	I went for you	yakuendela	I did go for
yawwa	I heard you	yawwa	I did hear

-ku- clearly is not a realization of -R-, since Ro 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 : [6]

njenda	act of going, cf. **-enda** go

Failure to distinguish between **m**, **mm** and **mm** led to confusion of two of the object infixes and inability to distinguish either from the infix-less form in some

[6] 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. **lâmina**). 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 homophonous :

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 C_1. 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
>
> and
>
> 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-
ikubayizila/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 continuative*

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- -a 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
-nu-	you (pl.)
-a-/-ba-	them (Class 2)

-ki-⎫
-yi-⎬self

K

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

yabbaka	I seized you (yabaka I seized ; yanubaka I seized you)
wawwa	he heard you (wawa he heard ; wanuwa he heard you)
twasseva	we laughed at you (twaseva we laughed, twanuseva we laughed at you)
wammona	he saw you (wamona he saw ; wanumona he saw you)
yayyendela	I went for you (yayendela I went for ; yanuyendela I went for you)
tuyyiziidi	we have come for you, pres. perfect (tuiziidi we have come for ; tunuiziidi we have come for you)
ikummona	I shall see you (immona I shall see ; ikunumona I shall see you)

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 allomorphs.   It may be contrasted with the infix of the 1st person singular, which is -NA-, examples of the latter being shown in brackets.

Examples

nwambbaka	you seized him (nwammbaka you seized me)
wanwwa	he heard him (wangwa he heard me)
wansseva	he laughed at him (wantseva he laughed at me)
wammona	he saw me (wammbona he saw me)
wanyyendela	he went for him (wanjendela he went for me)
nunyyiziidi	you have come for him (nunjiziidi you have come for me)
okunttala	he will look at him (okunthala he will look at me)
kakunwwa	he did hear him (kakungwa he did hear me)

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- :

> emuana/omuana   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.

> ke twamona muana ko we didn't see a/the child
> twamona muana   we saw a child

and nouns with an element prefixed :

> meeso mamuana   eyes of a child
> imuana   it is the child

Use of the single prefix form outside these contexts implies stabilization :

> muana twamona   it is a child (that) we saw
> muana wabwa   it is a child (who) fell down
> muana   it/he/she is a child

Where the noun is unstable and definite, the double prefix is normally used :

> omuana wabwa   the child fell down
> twamon' omuana   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 [7] and in addition there are Classes 1a and 2a controlling agreements of Classes 1 and 2 but having different noun prefixes.

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[7] There is no system of concordial agreement corresponding to Class 12 in other Bantu languages, of which the class prefix is ka- or similar. There are however suggestive forms like kala ' already, long since ', cf. 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 -loka), Class 15
          nndoki   witch, Class 9
          kinndoki   witchcraft, Class 7

ki- in kinndoki looks like an extra prefix, since nndoki exists as a separate word, but kinndoki only controls prefixes of Class 7, never of Class 9. The element identical

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[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/nndoki** 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. **nkhiti** ' 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. nttadi (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 mmbuta 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

NOUN CLASS PREFIXES NOT CONTAINING R

Class no.	C stem prefix	V stem prefix	Extra prefix	Augment prefix
1a	zero	unrecorded	none	none
2	a-	wa-	a-	none
2a	aki-	unrecorded	none	aki-
5	zero	di-	none	di-
6	ma-	ma-	none	ma-
9	NA-	NA-	none	none
10	NA-	MA-	none	zi-
11	lu-	lu-	none	none
13	tu-	tu-	none	none
16	va-	va-	va-	none
17	ku-	ku-	ku-	none
18	mu-	mu-	mu-	none
19	unrecorded	fi-	none	fi-

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.

<div style="margin-left:2em">

Class 7   C stem prefix R-
              V stem prefix ki-
              Augment prefix ki-

</div>

Examples may be shown contrasting with Class 5 nouns which have zero prefix, or verb stems in the case of derivatives.

<div style="text-align:center">

Examples

</div>

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)
nnoona	example
sse	colour (se father)
tteevo	breath
vvaangu	creature (vaangu action ; -vaanga make, do)
wwiisa	influence
yyitu	relative, kinsman
zziingu	life (-ziinga live)

V stem prefix ki- :

kiana	garden
kielo	door
kiozi	cold
kiufuta	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)
kinkhuikizi	belief (-kuikila believe)
kingudi	motherly position/behaviour (ngudi mother, Class 9)
kimbvumina	milk
kinyya	challenge

The last example, kinyya, shows R in a -NR- augment.

<div style="margin-left:2em">

Class 8   C stem prefix R-
              V stem prefix yi-
              Augment prefix yi-

</div>

Class 8 is the plural class for nouns in Class 7, though in many cases there is no corresponding plural, e.g. tteevo ' 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-
V stem prefix u-
Augment prefix u-

Few Class 14 nouns have plurals ; where these exist they are usually in Class 6.

Examples

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-.

It may be asked what is the justification for including ulolo 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	C stem prefix R-
	V stem prefix ku-
	Augment prefix ku-

This class contains only verbal infinitives.[9] 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, -ba-.

-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- :

bbaka	to seize (baka ! seize !)
ddya	to eat (dya ! eat !)
ffuunda	to complain (fuunda a thousand)
kkala	to be (stem -kala)
kkala	to deny (stem -kkala)
lloonga	to learn (loonga dish)

---

[9] Three other nouns are sometimes assigned to this class :

kutu	ear, pl. matu (Class 6)
kuulu	foot, leg, pl. maalu (Class 6)
kooko	hand, arm, pl. mooko (Class 6)

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 (nṇwa 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- :

kummbaka	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-
kuabaka/kubabaka	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 '.[10]

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   C stem prefix NR-
                            V stem prefix mu-
                            No augment or extra prefix recorded

Examples are compared with corresponding plurals in Class 2 and sometimes with related verbs.

Examples

C stem prefix NR- :

mbbuunzi	younger sister (abuunzi)
mffidi	leader (afidi ; -fila lead)
nkkeento	woman (akeento ; also makeento Class 6 ; cf. nkheento (Class 9) female animal)
nkkuundi	friend (akuundi)
nlloongi	teacher (aloongi ; -loonga teach)
nnati	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 C_1 and with related verbs. Class 9 has prefix NA-.

Examples

C stem prefix NR- :

mbbu	sea (mmbu mosquito)
mffunu	necessity (mpfumu chief)
nkkuumbu	time, occasion (nkhuumbu name)
nkkalu	denial (-kkala deny ; nkhalu calabash)
nlluunzu	pain
nŋwa	mouth (nndwa act of drinking, -nwa drink, nnwa to drink, Class 15)
mppata	unit of currency (mphatu field)
nsse	race, type (ntse rawness)
nttadi	overseer (nthala act of looking, -tala look at)
mvvovo	expression (mbvova act of speaking, mphovelo way of speaking, -vova speak)
nzzobo	paste (ndzoba act of making into paste, zoba make into paste)
nyya	a foursome (-ya adjective stem)

V stem prefix mu- :

muini	sunlight
muenze	virgin
muanda	spirit
moolo	lazy person (stem -olo)

Augment prefix mu- :

munndele	European
munkhoondwa	one who lacks (-koondwa lack)
munkhuikizi	believer (-kuikila believe)
mumphodi	one who draws down (on himself) (-vola draw down)
muntse	sweet-cane

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- :

nkkuumbu	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)
minndele	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- :	atatu	three (stem -tatu)
V stem prefix w- :	woole	two (stem -oole)
	waaka	other (stem -aaka)
Augment prefix a- :	awoole	two (cf. woole)

Class 4

C stem prefix NR- :	nttatu	three
V stem prefix my- :	myoole	two
	myaaka	other
Augment prefix mi- :	mimyoole	two (cf. myoole)
	minttatu	three (cf. nttatu)

Class 10

C stem prefix zero :	tatu	three
V stem prefix z- :	zoole	two
	zaaka	other
Augment prefix zi- :	zizoole	two (cf. zoole)
	zitatu	three (cf. tatu)

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/awoole 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-   nkke, 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
	kikke	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 ', yiyyoole. 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.

I		II	
áwa	they heard	——	(no corresponding example)
ábaka	they seized	anáta	they carried
ásadisa	they helped	amókena	they conversed
ázayakana	they became known	avílakana	they forgot

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 **avílakana** 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)V-		*Infix without vowel*	
atúbaka	they seized us	ábbaka	they seized you (sg.)
anúbaka	they seized you (pl.)	ámmbaka	they seized me
aábaka \ abábaka /	they seized them	ámbbaka \ ábbaka /	they seized him

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 **á-**. 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.

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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
> **ffiimpa**   to examine ; Class 15, stem **-fiimpa**

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- :

<table>
<tr><td align="center">Laadi</td><td align="center">Zoombo</td></tr>
<tr><td>nikukuba (ni-ku-u-kuba)   I hit you</td><td>ikukkuba (i-ku-R-kuba) I shall hit you</td></tr>
</table>

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.

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[11] *Eléments de grammaire yaka* (cited in n. 5, above), p. 8.
[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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