MORPHOLOGY, MORPHOPHONOLOGY AND MEANING

IN THE

SINGLE-WORD VERB-FORMS IN BEMBA

by

John Campton Sharman, M.A. (Cantab.)

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Promoter of Studies: Professor D. Ziervogel, M.A., D.Litt.

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My thanks also to Dr. W.H. Whiteley, for a deal of useful comment on matters of presentation and form - and some gentle chiding on matters of non-parliamentary language.

There is no doubt whatsoever that Professor D. Ziervogel was the man who first suggested that the thesis be written; this suggestion resulted in his being saddled with the unenviable task of acting as my promoter of studies.   To him, I owe a very special debt of gratitude for his patience, forbearance, and thoughtful guidance in the clarification of a good many obscure or inadequate passages.

Most patient of all, however, has been my wife, who has typed her way through some four or five editions (and many more 'local' alterations), knowing all the time that she would only have to start the thing all over again in another few months.   My thanks to her for doing the hardest job of all, and also for her incisive criticism and helpful argument.

I am conscious that, in spite of the help of all these good people, there yet remain certain lacunae, inconsistencies and weaknesses.   These are my fault: I can only hope that further investigation and critical comment will serve to set them right.

BIBLIOGRAPHY

Books actually mentioned or quoted in the paper are listed below, with the title-abbreviations used in the text.

Atkins, G   PSN   The Parts of Speech in Nyanja
(Nyasaland Journal, Vol.III, No.1, 1950)

         SWDN   Suggestions for an Amended Spelling and Word Division of Nyanja
(International African Institute Memorandum XXV, 1950)

Bloomfield, L   Language, 1933.

Bryan, M.A.   BLA   The Bantu Languages of Africa, 1959.

Burssens, A   TSL   Tonologische Schets van het Tshiluba, 1939.

Coupez, A   ELL   Etudes sur la Langue Luba, 1954.

Doke, C.M.   B   Bantu, 1945.

         BLT   Bantu Linguistic Terminology, 1935.

         SBL   Southern Bantu Languages, 1954.

         TLG   Textbook of Lamba Grammar, 1938.

F.rtune, G   CIVS   Conjugation of Inchoative Verbs in Shona
(African Studies, Vol.VIII, No.3, 1949)

Guthrie, M   BWD   Bantu Word Division
(International African Institute, Memorandum XXII, 1948)

         BWEA   Bantu Languages of Western Equatorial Africa, 1953.

         CBL   Classification of the Bantu Languages, 1948.

         CBR   Index of Common Bantu Starred Forms
(Unpublished)

         DC 1, DC 2   Devonshire Courses, 1 & 2 (roneod)

         GNP   Gender, Number and Person
(SOAS Bulletin, 1948 or 1949)

         MGVL   Verb List (roneod)

         RPS   Notes for the Royal Philological Society
(roneod)

         T   Tenses (roneod)

Hockett, C.F.   A Course in Modern Linguistics, 1958.

Hulstaert   CLCB   Carte Linguistique du Congo Belge, 1950.

Meeussen, A.E.	CVCB	Le Voyelle des Radicaux CV en Bantou Commun (Africa, Vol. XXII, No. 4, 1952)
	ELO	Esquisse de la Langue Ombo, 1952.
	PGCB	Les Phonèmes du Ganda et du Bantou Commun (Africa, Vol. XXV, No. 2, 1955)
	TPCB	The Tones of Prefixes in Common Bantu (Africa, Vol. XXIV, No. 1, 1954)
Sambeek, J. van	BG	A Bemba Grammar, 1955
Sharman, J.C.	NPPB	Nominal and Pronominal Prefixes in Bemba (unpublished) Afr. Lang. Studies IV, 1963
Sharman & Meeussen	TROST	The Representation of Structural Tones (Africa, Vol. XXV, No. 4, 1955)
Sharman, J.C.	TTBL	The Tabulation of Tenses in a Bantu Language (Africa, Vol. XXVL, No. 1. 1956)
Westphal, E	IMCB	The Indicative Mood and its Classification in Southern Bantu (African Studies, Vol. IV, No. 4, 1945)
	SCZ	The Stative Conjugation in Zulu, Sotho and Venda (African Studies, Vol. IX, No. 3, 1950)
White Fathers	WFD	The White Fathers' Bemba Dictionary, 1954.

Geographical and Dialect Note on Bemba

Local variants and sister dialects are spoken over a very wide area in Northern Rhodesia and Katanga. The Bemba cluster is contained within a circle of some 200 miles radius, with its centre at the Bangweulu Swamp (not Lake). Thus, starting in the west and moving clockwise, the border runs: south-west of the Copperbelt - Elizabethville - Kundelungu Mts. - southern end of Lake Mweru, - north of Mporokoso - Senga - Kayambi - Isoka- the Lwangwa - Mkushi.

Bemba is the African lingua franca of the Copperbelt, and has extended down the line of rail into each main town as far as Lusaka, with two more outlying 'islands' in Livingstone and Wankie.

The heart of the 'real' Bemba-speaking country is around Kasama, and it is the language of this area that provides all the material for the present thesis.

People actually calling their language icíbembá (even though having a special name for their own dialect thereof) extend from the Luapula valley (even the Kundelungu Mts.) in the west to beyond Chinsali in the east, and from Mbereshi, from beyond Mporokoso and Kayambi in the north, to beyond the Luapula and Mpika in the south.

But then there are several tribes calling themselves and their languages by names other than Bemba, who nevertheless must be regarded as part of the same dialect cluster. Thus, to judge from the ample material in TLG, even Lamba must be included as a sister-dialect - and if Lamba, then presumably Lala, Swaka and Biisa. The main differences are in shapes of tense signs and in tones.

Aushi is really only distinguished by relatively small
tonal variation, so Hulstaert (CLCB) is quite right to
include it as a dialect of Bemba.   I would not agree
with Doke's inclusion of Mambwe and Lungu (there is a
group of Bembs called Lungu, near Kapatu, but these
are linguistically nothing to do with the Lungu around
Abercorn, who are a different tribe - just as the Bemba-
speaking Lunda of the Luapula valley are no longer
linguistically related to the Lunda-speaking Lunda near
Balovale).

Using Guthrie's numbering, I would say (with RLA)
that the group includes all the M 40's and 50's.

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PREFATORY NOTE

Prefatory Note

In a paper of this type, it is clearly impossible to argue *as if* from initial zero assumptions; and so I have found it necessary often to presume the truth of facts that have not at that particular stage of the paper been 'proved' true.

However, this is not out of keeping with normal scientific technique; and if nothing later occurs to contradict the assumptions made, that in itself is one good reason for accepting their validity. Over a longish period of investigation I tried to build up what seemed to be (certain minor details apart) a self-consistent picture of the Bemba verb: at first making all manner of hypotheses, discarding the faulty ones as they were shown to be faulty, modifying others, and becoming gradually convinced of the greater validity of some of them, as incoming evidence continued to be confirmatory, and nothing turned up to contradict.

I hope 'proofs' will in all cases appear somewhere in the paper, even if not immediately a given assumption is made or implied. I can only crave the reader's indulgence and ask him to take such unproven points on trust for the time being. After all, the only logical outcome of an attempt to introduce each item earlier and earlier is to end up with the entire thesis on page one.

Another important consideration is this: if a given form is regularly observed in speech then it must be accepted, and every effort made to incorporate it into any general theory: in any case it must never be left out of account, even though it seem unaccountable. So there are several items against which I have had to leave query marks; sometimes because my data are inadequate and sometimes because the theory doesn't seem good enough: but

I would rather leave query marks than suppress evidence
merely because it is uncomfortable, or suggest that
observations were complete and correct when they were
in fact incomplete and possibly incorrect.

By the same token, <u>no</u> form must be an invention, or
forced artificially from the informant to bolster up a
theory. Here, only those forms actually recorded are
used as examples. Other general guides have been Occam's
razor and the simplicity postulate. I have tried to
stand by the great dictum: "Entia non sunt multiplicanda
praeter necessitatem"; not only as regards the entities
themselves, but also as regards the labels given to them.
Thus, to each individual form or element I have tried to
allocate one label only - and, equally important, tried
to make sure that each label is only attached to one single
form or element. The simplicity postulate tells us that
if we can think of two or more possible <u>explanations</u> for
the same phenomenon, we should take the simplest - because
such an explanation is also the easiest to handle and
communicate, usually the most aesthetically pleasing, and,
in short, the most likely to be 'true'.

Further, I have tried to limit myself to what is
practical and convenient; the approach has been an
essentially pragmatic one - "if it works, use it."
Actual method can be summarized in terms of two well-known
scientific techniques: first, the overall scientific
method of induction, hypothesis and trial, leading to
acceptance or rejection; and second, the control-experiment,
whereby we set up what we hope are constant conditions,
and then try to alter only one variable at a time.

During the course of my study of Bemba, it became more
and more apparent that I needed some kind of analysis of
tonal structure beyond that already provided by Dr. Guthrie's
very valuable orthography[1], which was a compromise between
'structural'[2] and tonological. Work on this began in
Tervuren in 1952 under Dr. Meeussen, who showed me how we
can regard a phonological/tonological form as the represen-
tation of a 'structural'[2] form, and how to set about the
business of making an analysis of the kind I wanted.

Previously all phonetic/tonetic forms had been auto-
matically transcribed in a compromise orthography derived
from that of Dr. Guthrie (but still structural/tonological);
but from 1952 I began to try to write and think in one or
other or both of two new orthographies. The one is
phonological/tonological, eg. bákééés; the other struc-
tural, eg. bá-ka-is-a + D.[3] This procedure so clarified
insight into the tonal structure of the language (as
opposed to its tonology), and especially into the power,
beauty and absolute reliability of the rules of tonal
representation[4], that I adopted it for all expositions;
and it really forms the mainspring of the investigatory
machinery in the present paper.

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[1] Examples of which occur in BWD, DC1 and DC 2.

[2] I should strongly emphasise once more that this use of the
word 'structural' implies 'at a morphophonological level',
and not 'at the syntactical level'. (In the latter case,
we could in fact well continue to use the older word 'con-
struction' rather than 'structure'.)

[3] As a point of interest, the Guthrie orthography for this
would have been bákhíéé. The phonetic transcription is
ʋákέ:έ

[4] See TROST

One main purpose of the thesis is in fact to demon-
strate the practical advantages that may be derived from
always quoting each form both as analysed at a second-
degree[1] structural level, and as represented at the
phonological/tonological level: again, these advantages
should become apparent without the necessity for further
comment.   At this stage, however, a quotation from TROST
may not be out of place:

> "On the structural level, it is usual to consider
> and write each element (radical, affix, etc) as it
> occurs, both in the form quoted and in all other
> forms, as an abstraction. On the phonological
> level, we normally discuss and note down each word
> in terms of relevant sound units, disregarding
> structural variations if they happen to be neutral-
> ized for the hearer. On the phonetic level, we
> consider and try to write each sentence as it sounds
> in the particular utterance under examination. The
> relationship between the phonological and the
> phonetic levels is simple and clear, though one
> should not be misled by this clarity into assuming
> identity.

> "It is customary to call a phonetic/tonetic form
> the realization of a phonological/tonological form.
> Here a phonological form is called the representation
> of a structural form, and this article is chiefly
> concerned with the tonal relationship between
> structural and phonological levels, ie. with tonal
> representation.

> "Each of the three levels is given an orthography
> of its own, viz.

> (1) structural: bá-ka-pít-a represented by
> (2) phonological: bákapítá   realized as
> (3) phonetic: ᵾakapitá   (they will pass)"

By using with care and rigour certain terms and
definitions (some new, some old), by introducing certain
entirely new concepts, and by employing certain new
techniques (such as that described above), the study of
the Bemba verb (and hence of the Bantu verb generally)
can be greatly eased. This the thesis will attempt to
show ambulando, without calling attention to each and

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[1]That is, at a second level of abstraction within the
morphophonological.

every point of procedure as it arises; but rather by a cumulative effect arising from the total method of presentation. Since this aim (to show that a new approach can and will simplify study) must necessarily involve us _passim_ in much that is new, we cannot expect everything to be familiar or conventional, nor must we expect to find everything defined beforehand. Once again, this would mean everything would have to end up on the first page! Terminology that is not immediately self-explanatory is in _some_ cases defined, but in others 'left to define itself by usage'.

Other aims are at one and the same time constructive and critical: chiefly by force of counter-example, I seek to show that some of the views held methods used, and results obtained by each of the two major English-speaking schools of Bantu linguistics are in certain respects variously inadequate, or misleading, or even frankly erroneous. A consolidated and detailed discussion of specific cases and examples has been relegated to Appendix B, since it would have disrupted the exposition to have included such examples in the main body.

Lastly, I hope that this thesis may perhaps provide a model, or series of models, on which analyses of other Bantu verbs might be based. This is not in the least to suggest that other Bantu languages have exactly the same characteristics as Bemba, but simply that students might find they get further faster and more easily, by using similar _methods_. Among these, I would single out in particular:

(1) the general method of tabulating tenses (and other verbal features);

(2) the method of tonal analysis, the recognition of
the tonal structures and the different categories
of structural tones, and the formulation of rules
governing their representation at the tonological
level[1], leading to:

(3) the technique of always exposing the relationship
between structure and phonological representation
for every form; without which we cannot properly
achieve (1) above.

Kasama 1950-51
Lusaka 1951-55
Nairobi, Dar es Salaam and Kampala 1956-59
Shrewsbury and Birmingham 1959-60
Nairobi 1961-63

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[1]Tonal structure and its representation are at the very
heart of the morphological and morphophonological analysis:
hence throughout this paper, tones are marked as a _sine qua
non_. Without them, the thesis could not exist.

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INTRODUCTION

INTRODUCTION

1.1.   Some people use familiar terms one way, and some another.
So that the reader may embark on the main body of the text with
as few terminological doubts as possible, I start with a little
preliminary discussion of the ways I believe I use certain
terms and devices.

Just as a phonetic transcript uses symbols (eg. IPA) to
represent as close an approximation as possible to the vowels
and consonants we hear, so on the same (observational) level
we can record the <u>tones</u> of the utterance, indicating relative-
pitch-differences (not absolute): this we may do fairly
accurately in one of two reasonably practical ways -

(i) by a system of number-affixes, each number being affixed
     to the appropriate phonetic symbol for vowel or vowel-like,
     and standing for a previously agreed relative tonal level.

(ii) by a separate, graphical transcription, eg.

$$\bar{} \; \diagdown \; \_ \; - \; \_ \diagup \; \frown \; \diagdown \; - \; - \; - \; \diagup \bar{} \diagdown \; \_ \diagdown \; .$$

Or, by reducing distinctions still further, we may achieve a
quite practical 'broad' tonetic transcription using common
diacritical marks such as:-

á   à   a̍   ǎ   â   a (and others, as needed)

For Bemba, a serviceable tonetic transcript may be achieved
with:- a̋   á   a̍   a   à   plus the blanket-instructions
"after every 'low' tone, the next 'high' is 'stepped down', so
that the whole utterance normally displays downdrift unless
otherwise indicated."

Furthermore, at the phonetic level a given language may
display two quite distinct sounds (eg. b and ʋ, or t and r) -
but when we list all observed occurrences of these, we find
that in no case do they distinguish meanings, and that the
first always occurs post-nasal, while the second is always
intervocalic.   This would be sufficient reason for regarding
them as allophones or two variants of the same <u>phoneme</u>.

Simélarly with <u>tonemes</u> - for example we may find that, in a
given language, a (tonetic) falling tone and a (tonetic) mid
tone are both simply reflexes of the same toneme, but that in
the first case the vowel is long, and in the second case it
is short.

There are of course all manner of variations of tonematic
law, from language to language; but certain features are fairly
common in 'Common Bantu'. For example, in Bemba (and in many
other Bantu languages) there are three tonemes at the tonological
(phonological) level: high, mid, low (or 'normal'). Long vowels
may have hh, mm, ll, hl (but <u>not</u> lh). Short vowels may have h,
m, l. There are however only two <u>basic</u> tonemes (as in all
Bantu tonal languages?); once the rules of tonal representation
are discovered, we can get down to the 'second (morpho) phono-
logical level' and write <u>either</u> H <u>or</u> L, the which, as they are
represented at the tonolggical level, will turn out to be (h, m,
or l) and (l or h) respectively. At the phonetic level, we can
of course indulge in as many variations of pitch as the human
voice is capable of, but always linked back to our basic 'high,
mid, low'.)

So, a phoneme is a 'minimum unit of distinctive sound-
feature' (Bloomfield, Language), and a toneme is 'a minimum
unit of distinctive tone-feature'. Phonemic/tonemic means
'pertaining to these minimum units'.

Phonology/tonology are 'the studies of significant speech-
sounds/tones'(ibid). I would like to add: 'at a level of
generalisation, while tonemics/phonemics are at the level of
particularization.' (Burssens, for example, calls his book,
"Tonologische Schets van het Tshiluba"; and pp.xii gives
'phonologische tekens'. When he comes to discuss individual
significant sounds and tones, however, he heads his chapters
'Phonemen' (p.6) and 'Tonemen' (p.12).)

'Structural': this word is used by linguists at several
different levels - the two most popular being:-

(i) morphological   (ii) syntactical

For example, when educationalists (and linguists) are talking
about 'The Teaching of English as a Second Language' and use
the words 'structural' and 'structures', they always mean
'constructions' in the broad syntactical sense.

In my paper, it is always used at level (i). Underlying
any (intelligible) observed utterance, there is an (abstract)
structure. This structure consists, first, of morphemes (or
even submorphemes, if we consider the H/L level of abstraction).

In a language like Bemba, each morpheme consists of one or
more phonemes with an attached toneme. In many languages, each
consists of one or more phonemes, modulated by a secondary
phoneme (any of which may be attached to any morpheme) - Bemba
has certain secondary phonemes also, but these have been dis-
regarded in the present paper since they lie outside its purpose
and scope: they have to do with the conveyance of special
emotional attitudes, and are realized in speech as eg.differ-
ences in voice quality, stress (ie. breath force, not tonic
stress) and intonation (as distinct from tone-pattern, which is
rigid, and underlies intonation.)

Now, a morpheme is "a linguistic form which bears no partial
phonetic-semantic resemblance to any other" (Bloomfield). But
as the same author remarks elsewhere: "..we can distinguish
several ranks of morphologic structure." In the present paper,
I have taken each example-word as starting out from the same
level of abstract structure, viz. a level at which a given
morpheme always appears as denoted by the same symbol(s). Thus,
1st.pers.sing.subj./obj. prefix always appears as n- : this is
realized in speech variously as n-, ŋ -, m-, ɱ-.

In this paper, then, the first column gives the morpho-
phonemes or abstract morphophonological structure of a word,
the second the phonemes[1] or phonological representation or

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[1] Phoneme/phonological used here as shorthand for phoneme + toneme,etc.

'meaning'. We could have inserted a third column giving the
(average) <u>phonetic realization</u> of the word. We should then
have had, eg.

bá-ka-is-a + D→bákéésá (72) vaké:sá they will come ‖

bá-ka-is-a - D→bákéésa (71) vaké:sa they will come ....

bá-ka-pít-a ± D→bákapítá (71/72) vákapítá they will pass ‖ <u>or</u>...

But the (average) phonetic utterance can be easily deduced from
our present column 2, so it was discarded.

All the above usages are completely normal and long-
accepted. The word 'morpho-phonology' ('morphophonemics' in
America) is more recent coinage, for the study of (interrelated)
morphology and phonology, or their interrelation, or their
various degrees of interrelatedness.

What Hockett (A Course in Modern Linguistics, p.137)
calls 'central sub-systems' are:

(1) grammatical - morphemes and their arrangements

(2) phonological - phonemes and their arrangements

(3) morphophonemic - ("the code which ties together" (1)
     and (2) above)

(His 'peripheral sub-systems' - p.138 - are:

(4) semantic

(5) phonetic)

For Hockett, morphemic = morphological, and phonemmic =
phonological. Whereas for Bloomfield, morphophonemics/
morphemics/syntax are three subsections of morphology, and
phonetics/phonemics are two subsections of phonology.

Thus, my thesis title could be changed to "Morphonemics,
Morphophonemics and Meaning...etc.etc." in Ki-Hockett, but
not in Ki-Sherman or Ki-Bloomfield.

1.2.   Most of the conventions used herein are already normal usage: some do need explanation, and are defined in the body of the text. They are all listed here for easy reference.

1.2.1.   Structural Conventions

V	=	vowel	Hm	=	high monophone
C	=	consonant	Hz	=	high zero
N	=	nasal consonant	Lz	=	low zero
Z	=	zero consonant	'H'	=	pseudo-H
I.V.	=	initial vowel	h	=	tonological high
H	=	structural high	l	=	tonological low
L	=	structural low	$\widehat{hl}$	=	falling
$\widehat{HL}$	=	structural high-low, subject to fusion	m	=	tonological mid
$\widehat{LH}$	=	structural low-high, subject to fusion	$\longrightarrow$	=	is represented phonologically by
D	=	diatony	LP	=	imposed low prefix
P	=	post-radical high	S	=	imposed subjunctive pattern
F	=	high final	TD	=	tonal determinent
R	=	raised final	OR	=	objective relative (tone pattern or tense)
O	=	post-radical zero (ie. low)	SR	=	subject relative (tone pattern or tense)

1.2.2.   Morphological

a   =   pre-prefixal (or pre-initial) 'attitude' sign

q   =   pre-prefixal tense sign

q_n =   pre-prefixal negative tense sign

p   =   verbal prefix (normally subj. but see 2.3.)

np   =   nominal prefix

pp_s =   pronominal prefix (subj. but see 2.3. and 5.1.1.)

pp_o =   pronominal prefix (obj.)

t   =   pre-radical tense-sign

t_n =   pre-radical negative tense-sign

r   =   radical; further distinctions could include eg. r_0, taking no obj.; r_1, taking one object; r_2 taking two objects; r_d, 'dual'...)

z   =   zero tense-sign

e = extension (further distinctions could include:

e, not affecting number of objects taken;

e_1, affecting number of objects taken;

e_d, requiring plural subject)

s = suffix (treated together with t and t_n, q and q_n,

and z)

l = locative enclitic

lp = extra (locative) prefix

(α) = 1st person singular

(β) = 1st person plural

(γ) = 2nd person singular

(δ) = 2nd person plural

(ρ) = reflexive

(ϕ) = exclamatory particle, ideophone, phonesthetic particle

(1)...(18): class numbers (international numbering)

013, 101, 174, 57, S 01 etc: tense numbers, mostly as in
TTBL. These tense numbers are given after every tense
cited, even before the tabulation has been discussed, so
that the reader may identify all examples by referring to
the tables on p.148(s). The line-number is always read
off first.

The structural level is indicated by normal type, with
words broken into elements by hyphens: the phonological
representation by bold type.[1]

1.2.3. Tonological

No tone mark = low tone   ´ = high tone   ^ = falling tone
⸌ = extra high tone   ' = mid tone   ! = tonal slip

1.2.4. Phonological and phonetic notes

(a) Consonants:

1. Pre-vocalic b is realized in speech as a voiced bilabial
fricative, while post-nasally and before -w- it is real-

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[1] This to come into play if the thesis is ever published.

ized as a voiced bilabial plosive. b is used for both.

2. l is a flapped lateral, and the combination nl is
realized in speech as nd. For readers' convenience, it is
always represented by nd at the phonological level.

3. s before i is realized in speech as ∫; it avoids certain
complications if we always use the symbol ∫ for representing
this sound, even at the phonological level.[1]

4. For ease of printing, the homorganic nasal is later
written simply as n before k and g (realized in speech as
ŋk and ŋg) and simply as m before f (often realized in
speech as ɱf). But inter- or pre-vocalic ŋ is written as such.

With one exception (∫ for sh), these representations
accord with present-day Bemba orthography, and do (I hope)
make for relative ease of printing and reading, even at the
expense of some consistency.

(b) Vowels:

1. All vowels are realized as long before nasal compounds,
and are therefore not written as such (unless there is some
special underlying structural reason for so doing).

2. In all other cases, length is represented simply by
doubling the vowel concerned.

The rules of vowel fusion are:-

(1)(a) two or more identical vowels ⟶ one long vowel
    (b) two or more different vowels: see rules 2 and 3

(2)(a) i and e as first vowel ⟶ y; except when i itself
         follows e itself which gives ee (Rule 3)
    (b) o and u as first vowel ⟶ w; except when o or u
         follows u or o, which gives oo
    (c) a as first vowel ⟶ zero

(3)(a) i and e as second vowel ⟶ ee; except when i follows
         u, which gives wii
    (b) o and u as second vowel ⟶ oo; except when u follows
         i, which gives yuu
    (c) a as second vowel ⟶ aa

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[1]This is how matters have been left in the present typescript.
After further thought I do now rather feel that perhaps it would
be better to write -si(i)-, -syee-, -syaa-, -syoo- -syuu-
instead of -∫i-(i)-, -∫ee-, -∫aa-, -∫oo, -∫uu-, at the
phonological level.

These rules operate between final vowels and I.V.'s and between prefix vowels and stems. (They also operate between final vowels and verb prefixes, and between any short vowelled pre-radical mora and the radical.) .... Or, putting this into descriptive language (I am indebted to Dr. Meeussen for this formulation):-

When two vowels are fused,

First vowel: front and back vowels are represented by the corresponding semi-vowels, except e before i, o before u and u before o: these and a are unrepresented.

Second vowel: after a second or third degree, first degree are represented as long second degree; in all other cases the second vowel is simply lengthened. [1]

1.2.5.   Tonetic Note

It seems to me that in Bemba, a succession eg. átá ('theoretically' h m) at word-end sounds like átà (h l). Similarly, a combination 'theoretically' yielding eg. h m͡m h sounds like h l͡l h - ie. (⁻ _ ꜥ). (The second h is lower than the first because of the 'blanket-instruction' already mentioned - "after every low tone, the next high is 'stepped' down'.") But a combination yielding eg. h m͡m l... does sound like h m͡m l... ie (⁻ - _). In other words, Bemba seems to be losing or to have lost mid-tones except between highs and lows in the same word.

1.3.   Some Definitions

Most of the terms used are either self-explanatory, explained before use or in use, or else well-known normal usage. But it might be well to define one or two beforehand. These definitions do not presume to be rigid: or

---

[1] Where:-   1st degree: i   u
              2nd degree: e   o
              3rd degree: a

even to define the unknown only in terms of the known.
They are simply practical, working, commonsense explanations.

Tense signs[1] are those elements in a finite verb which can
be identified as giving rise to the particular tense-meaning
that the finite verb has. These may be of three types, viz.

    (a) pre-prefixal (by this I simply mean "occupying a
                     position before the prefix"): atúfiké..
                     nóatúfiké

    (b) pre-radical: tuléélima ...   tukalima

    (c) post-radical: tufikílé ...   tulalima

(Some authorities would call 'radical + post-radical tense
sign' the 'stem': some would call the 'post-radical tense
sign' the 'suffix': and some would call either 'radical
alone', or 'radical + suffix', the 'root'.)

Radical[1] is that element in a Bemba verb carrying that
meaning which is independent of tense signs and prefixes,
infixes and extensions:

    túbalífikílé   nóatápwíʃíʃíʃó
    we arrived]   they have quite finished]

Extensions[1] are elements added after a radical to modify its
meaning; they are distinct from the post-radical tense sign.

    nóabápwá   nóabápaílílílé
    they have finished   they have finished the lot
    íléelóká   aléelókwá
    it is raining   he is being rained on

I have labelled one group of tenses Continuous, but also
talk of them as 'progressive' or as indicating 'events in
progress', which is what I mean by 'continuous'.

---

[1] These are all used in the SOAS manner: cf. PSN, CBL.
cf. also ELO, ELL.

2

* * * * * * * * * * *

ELEMENTS AND MEANINGS

2.   For finite verbs in Bemba, the minimal elements are
p t r (t may of course be zero). This form occurs only with
the radicals -TI act, do, say, intend, 'go' (as in 'go bang')
and -LI be, both of which are limited in their tense selection.

The rest of finite verbs in Bemba have as their minimal
elements p t r s (where t may be zero). For a synopsis of
other forms, see Appendix A.

PREFIXES

2.1.   Verb prefixes may consist of:
   (a) a nasal consonant (α)
   (b) a single vowel (ϒ, 1, 3, 4, 9)
We call all the above 'monophones' since they are 'single
consonant' or 'single vowel', but we reserve the abbreviation
Hm for those 'high monophones' giving rise to Rule III of
Tonal Rep.

   (c) a consonant + a vowel -   (all other classes)
In tonal structure, they may be L (α, β , ϒ , δ) the
personal classes;   Hm (1)

                                H (all other classes)

but (α) and (ϒ) behave as Hm when structurally 'raised'
from L to H: we then have Hm for (α, ϒ , 1)(the 'personal'
monophones!), and ordinary H for (3, 4, 9) the 'non-personal'
monophones.   The pattern is:

αL > Hm	ϒL > Hm		1	Hm
βL > H	δL > H		2	H
			3	H
			4	H etc.

Generally: First and second person persons are normally L,
and other classes H.[1] But monophone 1st and 2nd, if raised
become Hm (like 1) while Diphone 1st and 2nd become H and all
other classes remain H.

2.1.1.   The nasal consonant of (α)(whether as subject or object
prefix) is homorganic: examples of its behaviour:-

---

[1] Cf. TPCB

(i) before consonants of verb radicals -

n-pet-a ⟶ mpata[1] ... (O1)   I hate... (habitually)

   (Tense O1 is found on Line Q, Column 1 of Table M, page 44)

n-bil-a	mbila ... (O1)		I sew ...
n-mas-a	mmasa ... (O1)		I daub ...
n-fut-a	mfuta ... (O1)		I pay ... (debts)
n-ten-a	ntana ... (O1)		I refuse (to give)
n-lek-a	ndeka ... (O1)		I stop ... (leave off)
n-nak-a	nnaka ... (O1)		I get tired ...
n-sal-a	nsala ... (O1)		I choose ...
n-sit-a	nʃita ... (O1)		I buy ...
n-capa	ncapa[2] ... (O1)		I wash ... (clothes)
n-kul-a	ŋkula ... (O1)		I dig ...
n-ŋaaŋ-a	ŋŋaaŋa ... (O1)		I snarl ...
n-Zub-a	ŋguba[3] ... (O1)		I peel ...
n-Zu-a	ŋgwa[3,4]. (O1)		I fall ...
n-Zis-a	nɟisa[3] ... (O1)		I come ...
n-Zi-a	nɟa[3,4]. (O1)		I go ...

Note: before verb radicals beginning with zero consonant, the

presence of the nasal of (α)[5], 'evokes' the -G- or -J-

(realized in all other circumstances as zero).

---

[1] Note that the last vowel in the word preceding all these forms
is lengthened, because of the presence of the nasal compound -
even in those cases with mm-, nn-, and ŋŋ- (pr. m-, n-, ŋ-) where
the compound itself is inaudible as such.

[2] -k- is represented and realized as k before a, o, u, in 1st
radical position; before i and e it is represented and realized
as c. (-CAP- must be a borrowing (from ?Nyanja), because -C- in
1st radical position followed immediately by -A- is 'impossible')
Similarly, the voiced counterpart (audible only after n) gives g
before a, o, and u; and j before i and e.

[3] See para 2.4.5. below for further discussion.

[4] Two or more vowels in fusion are always represented and realized
as long, except at the end of a word (this is a basic phonological
rule.)

[5] Or indeed any other nasal - as eg. nominals of shape 1N-r-a
(Cl.9/10 or 11/10)

ín-Zel-o ⟶ inɟélo		9/10	fishing net with stick handles (-EL- winnow)
úlu-Zipik-o	ulwíʃpiko	11	cooking pot (-IPik- cook)
pl. ín-Zipiko	inɟíʃpiko	10	
ín-Zolol-ʃ	iŋgólolʃ	9/10	sweet singer (-OIol- sing well, in tune)
ín-Zendel-o	inyéndelo	10	way of doing, customs (-ENDel- proceed)

          (continued overleaf)

(11) before consonants of tense signs -

n-la-fut-a ⟶	ndafuta	(02)	I (always) pay
n-lée-lim-a	ndéélima	(03)	I am hoeing ...
n-laa-tan-a	ndaaténa	(08)	...have I refused yet?
n-si-fut-a	nʃifuta	(neg.02)	I never pay up
n-ka-sal-a	ŋkasala	(71/72)	I shall choose

(No difference is made to the tonal nature of this prefix
if high tone radicals are used in place of low in all previous
examples:

n-bil-a ⟶	mbilá ...	(01)	I announce ...
n-tem-a	ntémá ...	(01⅓)	I lop
n-kul-a	ŋkulá ...	(01)	I grow ...
n-la-ful-a	ndafúlá	(02)	I forge
n-si-ful-a	nʃifúlá	(neg.02)	I never forge
n-ka-sal-a	ŋkasálá	(71/72)	I shall beat barkcloth

Before the vowel of a tense sign, the nasal of (ɒ̪) is repre-
sented and realized as n-, and the vowel is lengthened.[1]

n-á-nak-a ⟶	naanóka ...	(41)	I am tired (just) ..
n-ì-nak-a	niinaka	(S 02 neg)	"may I not become tired" "lest I become tired" "so that I may not ..."

Tense 06 (normally náa-´- -a P) has the form níi- - -a P
with 1st pers. sing. prefix -n-

níi- -n-bil-a P ⟶ niimbilá (06)   I have sewn

The prefix itself behaves quite normally, however.

One curious phenomenon (of which I have only one
recorded instance (but this very well attested)):-

n-lek-e F(S) maayó ⟶ ndeké maayó   let me leave my mother

or indeké maayó let me stop, my mother

Another, also only one record:

n-buk-e F(S) ⟶	mbuké		let me cast the bones
but n-buuk-e F(S)	imbuuké		let me get up (rouse myself)

(Footnote 5, cont. from previous page)

úlu-Zimbo ⟶	ulw(i)imbo	11	mine, mine-shaft (-IMB- dig)
ín-Zimbo	iny(i)imbo	10	
ín-Zóntelo	iŋɡóntélo	9	warmth (of a fire)(-ONT- warm⸗self)
	(pr. iŋɡóntélo, of course)		
úlu-Zímb-o	úlw(i)imbó	11	song (-IMB- sing)
pl. ín-Zímbo	íny(i)imbó	10	(both heard as (‾ _ -)

[1]Probably by analogy with all others.

This was given as a deliberate contrast, not for vowel-length or tones, but precisely for the alternance m-/im-

Other cases in which informants used an audible i- before (α) were probably idiosyncratic.

2.1.2.   The prefixes consisting of a single vowel are:-

u- L   (Y̌)   (w- before vowel)

á- Hm   (1)   (fuses with following vowel)

ú- H   (3)   (w- before vowel)

í- H   (4)   (y- before vowel)

í- H   (9)   (y- before vowel)

Examples of these before low radicals:

u-bil-a	⟶	ubila...	(O1)	you sew...
á-sal-a		asála ...	(O1)	he chooses ...
ú-is-a		wíísa ...	(O1)	it (eg. umwééló, 3 wind) comes ...
í-kul-w-a		íkúlwa ...	(O1)	they (eg. ímití, 4 trees) are dragged ...
í-tan-a		ítána ...	(O1)	it (eg. ímfúmú, 9 chief) refuses ...

Before high radicals:

u-bíl-a	⟶	ubílá ...	(O1)	you announce ...
á-sál-a		asúlá ...	(O1)	he beats (bark cloth) ...
ú-ít-a		wíítá ...	(O1)	it calls ...
í-kúl-a		íkúlá ...	(O1)	they grow ...
í-fúl-a		ífúlá ...	(O1)	('it') forges ...

We see that á- has a special tonal behaviour: the rule is:-

III. High monophone **personal** prefixes (ie. Cl.1, and Cl. α and í in object relative tenses), when not subject to contraction, obey Rule I, the prefix itself being represented in tonal contrast to the following element.

(Monophones subject to contraction simply obey Rule II.)

The behaviour can be seen even more clearly if a low tone tense sign comes between prefix and radical:

u-ka-bil-a	→	ukabila	71	you will sew
u-ka-bíl-a		ukabíló	71/72	you will announce
á-ka-ssl-a		skéssla	71	he will choose
ɓ-ka-sál-a		ákassló	71/72	he will beat
í-ka-kulw-a		íkskulwa	71	they will be dragged
í-ka-kúl-a		íkskúló	71/72	they will grow

2.1.3.   The prefixes consisting of consonant + vowel are:

tu-	L	(β)	tw- before vowel (> length)[1]			we
mu-	L	(δ)	mw-			you
bá-	H	(2)	'fuses' directly with vowel (> length)			
lí-	H	(5)	ly-			
yá-	H	(6)	fuses	tú-	H	(13)	tw-
cí-	H	(7)	fuses	bú-	H	(14)	fuses
fí-	H	(8)	fy-	kú-	H	(18)	kw-
ʃí-	H	(10)	fuses	pú-	H	(16)	fuses
lú-	H	(11)	lw-	kú-	H	(17)	kw-
á-	H	(12)	fuses	mú-	H	(18)	mw-

xamples before consonants:

tu-ka-kul-a	→	tukakula	71/72	we shall grow
tú-ka-kul-a		túkakula	71	they (13) will grow
tu-ka-kúl-a		tukakúló	71/2	we shall drag
tú-ka-kúl-a		túkakúló	71/2	they (13) will drag
tu-kul-a		tukula ...	01	we grow ...
tu-kúl-a		tukúló ...	01	we drag ...
tú-kúl-a		túkúló ...	01	they (13) drag ...

There is nothing remarkable here: Rule I of T.R. is obeyed.

Examples before vowels:

tu-a-bil-a	P →	twaabilá	(15)	we have sewn (once for all.)
tu-á-bil-a		twaabíla	(41)	we have just sewn ..
tú-a-bil-a	P	twáabilá	(15)	they (13) have sewn (once for all) ...
tú-á-bil-a		twáabíla	(41)	they (13) have just sewn ...

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[1]All obey the normal rules of vowel fusion in junction with a
following vowel: the column is given merely for convenience.

tu-a-bíl-a P ⟶	twaabílá	15	we have announced ...
tu-á-bíl-a	twaabílá	41	we have just announced ...
tú-a-bíl-a P	twéebílé	15	they (13) have announced...
tú-á-bíl-a	twéebílá	41	they (13) have just announced ...

Again nothing remarkable: Rules I and II are obeyed.

2.2.   Object 'infixes' may (like subject prefixes) consist of

(a) a nasal consonant (∝)

(b) a single vowel (3, 4, 9 and ρ)(these possess a Z, which
'reappears' in junction with preceding -n-, as g before u,
and j before i)

(c) a consonant + a vowel (all other classes)

All these are identical in basic tone with their subject
prefix counterparts, except -mu- (1) which is low, and -tú-
(β) and -mú- (δ) which are high.   (Singular 'persons' low,
plural persons high, in fact.)   (γ) and (1) differ n
in shape from their subject counterparts, being -ku- and -mu-
respectively.   Since these are not monophones, the normal
rules I and II apply.

2.2.1.   The tonal behaviour of -n- (∝) seems a little odd,
while its 'homorganic' character is quite normal.   However,
the tonal behaviour is explained by assuming that -V- + -n-
counts as long -V- (-n- as such is tonally ignored, the tones
being applied to the resultant long vowel before it).

bá-alée-n-lek-el-el-a[1] ⟶	báalééndekelela	13	they used to abandon me
bá-alée-n-lek-el-el-a D	báalééndékélélá	14	
bá-alée-n-láb-il-il-a[1]	báaléendábílila	13	they used to for-
bá-alée-n-láb-il-il-a D	báaléendábílílá	14	get all about me

---

[1] These extensions (-il-/-el-) are in fact structurally
identical, but are here written as -il- and -el- for
convenience.   See 1.5.13 for discussion.
                        p.55

(-)n-lek-el-el-a	F(I) →	ndekelelé[1]	imp.	leave me!(completely)
(-)n-láb-il-il-a	F(I)	ndabilila[1]	imp.	forget all about me
mu-n-lek-el-el-e	F > P	múndekélélé	S O1	you should abandon me
mu-n-láb-il-il-e	F > P	múndabílílé	S O1	you should forget all about me
ta-mu-n-lek-el-el-ele[2] F		tamúndekeleelé	neg. 05/06	you didn't abandon me (haven't ....ed)
ta-mu-n-láb-il-il-ile[2] F		tamúndabílíílé[3]	neg. 05/06	you didn't forget all about me
(ílyo) mu-ka-n-lek-el-el-a R		mukándekelelé	OR 71	(when) you (will) abandon me
(ílyo) mu-ka-n-láb-il-il-a R		míkandábilila	OR 71	(when) you(will) forget all about me
(ílyo) mu-a-n-lek-el-el-ele P R		mwééndekéléélé	OR 11	(when) you abandoned me
(ílyo) mu-a-n-láb-il-il-ile P R		mwéendabilíílé	OR 11	(when) you forgot all about me
mu-a-n-lek-el-el-a P		mwaandekélélé	15	you abandoned me long ago (and it's still like that)
mu-a-n-láb-il-il-a P		mwaandábílílá	15	you forgot all about me long ago (and it's still like that)
mu-a-n-lek-el-el-ele P		mwaandekéléélé	11	you abandoned me long ago (but it's no longer so)
mu-a-n-láb-il-il-ile P		mwaandábílíílé	11	you forgot all about me long ago (but it's no longer so)
ú-ku-n-lek-el-el-a		ukúndekelela	inf.	(to) abandon(ing) me
ú-ku-n-láb-il-il-a		ukundábílila	inf.	(to) forget(ting) all about me

From here on, nasals may be assumed to carry the same tone (represented) as the preceding mora, unless specially marked. Also, -ŋk- and -ŋg- will be printed as -nk- and -ng-.

---

[1] They are not always infixed: as objects of imperatives, for example, they are 'bare' — object prefixes would be a better term, in some ways. But 'infix' is so well established (not only in English—ELO uses 'infixe objet', for example) that I thought best to leave it.

[2] These suffixes (-ile/-ele) are also structurally identical, but are written as -ile and -ele for convenience. See 2.6.4 for full discussion.

[3] pronounced temíundabílíílé

2.2.2.   Object infixes of shape -ZV- are: -(g)ú- Cl.3,
and -(j)í- Cl.4, 9 and ƒ . These behave quite normally:
never fusing with preceding vowels, appearing as -gú- and
-jí- after preceding nasal, and fusing with following
vowels, if these themselves are not preceded by a "flüchtiges" -g[1].
Examples:

á-Zú-ísib-e   F > P → awíí∫íbé   8 Ol   (so that) he may know
                                            it (umúsengo, 3, way,
                                            method)

níi-n-Zú-u-isy-a P → níngúwíí∫é   06   I have felled it
                                            (úmutí, 3 tree)

á-ka-Zí-ipay-a D → ákaíípáyá   72   he will kill himself

2.
2.3.   All other object infixes are -CV- or -CV́-, behaving
normally:

bá-ka-bó-ipay-a → bákabéepaya ... 71   they will kill them ...

á-lée-ku-émb-il-a → sléékwáambila ..O3 he is slandering you
                                         for ...

tu-mu-peep-a   → tumupeepa ...   O1   we smoke it...(fwaaka, 1
                                                         tobacco)

á-mu-eb-el-el-ele P > F→ amwéébeleelé O5 he has accused you (ǯ)

        See also under 4. Imperatives.

2.3.4   There is also a form of prefix which appears in the
subject-prefix position, but is objectival in meaning. The
implications of this go deep: I believe we may say that the
conventional subject-object relationship does not really
apply at all in Bemba (and several other Bántu languages –
maybe most?)   The prefix occurs in subject-relative
sentences, such as:

é-ci-ntu ci-á-sós-a LP baa-taató   {that's what
     → ecíntu caasósá (SR 41) baataatá   {father said

- but it looks as if it means "that's the thing that said
father!" As proof of this, I quote:

-í-i(-)nnama D é-i-a-ipay-ile P + LP Mwambá

    → ií(-)nnámá éyaaipééyé (SR 11) Mwambá

which means: this animal is the one Mwamba killed
and also: this animal is the one that killed Mwamba

[1]See 2.4.10. and 3.1.10.

2.2.5. This seems a convenient place to point out the inaccuracy of the common belief that verb-prefixes must 'agree' with their subjects. They often do not, sometimes for constructional reasons, and sometimes for reasons of mental/emotional attitude. As examples of the first, we may take:

(1) úmwaaná-wééndí (Cl.1) bálingééné (Cl.2) nóómwaaná-óóbé
  my child is the same height as yours

Bemba regards the 'subject' as both 'my child' and 'yours'.

(2) imípándó (Cl.4) néétéébulo (Cl.5) fílí (Cl.8) kwî?
  the chairs and the table are where?

A mixed batch of <u>things</u> take Cl.8 verb-prefix.

(3) kapááso (Cl.1A) nééncinga-yéékwé (Cl.9) alí (Cl.1) kwî?
  the messenger and his bike are where?

A <u>person</u> and a <u>thing</u> (with a thing) take Cl.1.

As examples of the second type, we have:

(1) BaaMwamba naBaaMutélé (Cl.2A) fíléélwé (Cl.8)
  Mwamba and Mutele are fighting

Here Cl.8 indicates "big hulking rough brutes that they are."

(2) "... línó nóatúkwáátá yámó (Cl.6), nga twaatí túʃité
  right now we've got some; if we went and bought
nayámbí (Cl.6), kúti fyéébola (Cl.8)."
  some more they'd go bad.

The speaker was talking of ámacúngwa (Cl.6), oranges, but she suddenly turned them into Cl.8, because (a) she didn't want them anyway, and (b) she was regarding them as already having become 'things' (ie. gone bad.)

Footnotes to Section

(1) In tense S 02 neg., tenses 101 and 103, and in subject relative tenses, all subject prefixes are low: see 3. Tenses.

(2) There are also verbal forms having pronominal prefixes: these prefixes are of the form VCV- and may be either subject prefixes or object prefixes: for full discussion, see Verbo-Pronominals.

2.3.   The Tense Signs

These may be conveniently divided into three positional categories, viz:

(a) pre-prefixal[1]

(b) pre-radical

(c) post-radical

But note: (a), (b), and (c) should always be treated together, and as one entity, when identifying a given tense. The reasons for this will become plain when we consider the Tenses.

2.3.1.   Under (a) we have:

nàa-´	06
a-´-	hypotheticals
ta-´-	neg. pasts and zeros, main
ta-`-	neg. futures, main

All clearly pre-prefixal tense signs are associated with regular changes in the tone on the prefix. This 'determined'[2] tone overrides the normal prefix-tone. Note: the (α) variant in tense 06 shows assimilation to the prefix itself, being níi-(n)- : the prefix is represented as low before H-radicals and high before L-radicals. The (γ) variant may show assimilation, then being núu- ; rules as normal.

Examples:

nàa-´-tu-fut-a	P	→ náatúfutá	06	we have paid
a-´-mu-lek-a	P	→ amúleká	011/(2)	had you (but) stopped
ta-´-u-alée-nak-a	D	→ tawaaléénaka	14	you used not to get tired
ta-`-bá-aka-is-e	P	→ tabaakeese	71/2	they will not come

---

[1] See also section 4 for pre-initial (or pre-prefixal) 'emotional' arguments.

[2] I am indebted to Dr. A.E.Meeussen for this idea, and for the terminology.

Where the pre-prefixal tense sign 'ends in' -s- , and is
followed by the -á- (Hm) of Cl.1, we have, eg.

nás-'-á-lek-a P	⟶	náalcké	06	he has left off
a- '-á-lek-a P		alcká ...	011/2	had he (but) stopped
ta-'-á-lek-éle F		talekelé	neg. 65/06	he has not stopped

and:

ta-'-á-á-lek-ele	⟶	taalékele	neg. 21
ta-'-á-a-lek-ele P		taalekélé	neg. 11
ta-`-á-aka-lek-e P		taakaleké	neg. 71/2
ta-`-á-áá-lek-e P		taaléké	neg. 42(52)

We shall return to this phenomenon later, in 3.22. and
3.2.3.

2.3.2.   (b) Pre-radical tense signs may be further analysed
into two distinct groups - those which are 'basic', and
which occur 'pure', in the simple and perfective aspect
of strong-bond[1] tenses; and those which add some further
information (eg. weak-bond; progressive, inceptive,
completive).

BASIC pre-radical signs are:

Full past	-a-	11, 12; 13, 14; 15, 16 (pos. & neg.)
Recent past	-á-	21, 22; 23, 24 (pos & neg.)
Earlier today	-(á)ci-	31 (pos. & neg.); cf. -ci- 'still' (of -LI only in Central Bemba)
Immediate	-á-	41, 42 (= 51, 52); 53, 54; 57, 58 (pos. & neg.)
Zero	-z-	01 (02); (03, 04); 05, 06; S 01; S 03, 04); H 011; H 013, 014 (pos. & neg.)
Full future	-ka-	71, 72; 73, 74; S 71, 72; 73, 74 (pos & neg.)

BONDS

Weak-bond signs are:

Zero	-la-	02
Full past	-lí-	12, 16
Recent past	-líí-	22

---

[1]See below, 3.2.3.10. for explanation of this.

ASPECTS

Progressive signs are:

    -lés-   33, 34; 53, 54; 73, 74 (pos. & neg.);
                    neg. S 03, 04; neg. S 73, 74

    -lée-   13, 14; 23, 24 (pos. & neg.); neg. 73, 74;
                    neg. 57, 58; S 03, 04;[1] neg.S 73, 74

The Inceptive sign is:

    -(á)ku-   57, 58 (and áku- as pre-initial in
                    imperatives)

If we choose to put it this way, we may say -

"The Completive sign is: --lás-   07 or 47 (pos. & neg.)"

- but this is perhaps a special case (see below, 3.7(47)(p.181))

NEGATIVES

The negative future sign is:

    (ta-`) -s-   (-e post-radical): neg.51, 52; 57, 58,
                       71, 72; 73, 74;

'inserted' before the normal pre-radical tense sign.

The negative subjunctive sign is:

    -í-   neg.S.01, 02; S 03, 04; S 71, 72; S 73, 74

'inserted' before the normal pre-radical tense sign.

The negative relative sign is:

    -∫í-   all negative relatives

'inserted' before the normal pre-radical tense sign

The negative 1st person singular sign is:

    -∫í-   all tenses

always after prefix and before tense sign.

"MOODS"

The potential or suppositional sign is:

    -íngá-   P 071, 072; 073, 074

The hypothetical sign is:

    -s-´   H 011; H 013/014

---

[1] -leé- = -lée- + F !

The anterior signs are:

$$\overset{\backslash}{(\cdot)} - \begin{cases} \acute{1}- \\ -ls- \end{cases} \quad A\ 101;\ 103$$

There are certain cases when these are not interchangeable
(see 3.7.(tense 101)): it may be that they are never
really interchangeable at all.

From the foregoing, it is clear that certain signs
can be associated absolutely with given time references
and with given aspects.   For example, tenses 57/58 have
the pre-radical signs:

-á-ku-lás- :   -á-   immediate
                   -ku- inceptive   } or -áku- inceptive
                   -lás- progressive

tu-á-ku-lás-cít-a ⟶ twáakulááscítá 57/58 (we shall be
                                           doing (so) from now
                                           onwards (starting
                                           right away))
We shall deal with this more fully under section 3 (Tenses).

PHONOLOGY

Where a prefix is in junction with a -V- tense sign
(giving rise to a long vowel) or where the tense sign
itself ends in a long vowel, there is no fusion between
tense sign and a radical of the shape -VC-, -VNC- or -V-
(with or without extensions): where a tense sign ends in
a short vowel (eg. -alí- (16),(12); -ácí- (31), -aka-
(neg.71), -íka- (S 71/2), -sí- (101(a)) (and (X) negs. +
zero, R negs. + zero), -la- (101(b)), -la- (02), -ka-
(71/2)), there is normal fusion between tense sign and
-VC- or -V- radicals.

2.3.3.   (c) Post-radical tense signs are -A, -E and -ILE[1];
tonally sub-divided into:-

---

[1] -ILE, standing for several possible variants.   See § 2.6
for discussion.

-a   15; 31; 41; 01; 71; 101; 071 - and <u>all</u> in col.3.

(-a o ?) neg.S 02; neg.S 72

-a D   16; 22; 42; 02; 72 - and <u>all</u> in col.4.

-a P   pos. & neg.15; 06; neg.S 01; neg.S 71; 011

-e F   S 01

-e F   neg.51/2; neg.71/2; S 71/2 (S 01 with obj. inf.)

-ile   pos. & neg. 21

-ile D pos. 12; neg. 22

-ile F neg. 05/06

-ile P pos. & neg. 11; pos. 05

    See also Appendix A for a different tabulation.

Thus:

-a   occurs only in odd-numbered main tenses (and
          -a O in the even-numbered (simple) negative
          subjunctives)

-a D   occurs only in even-numbered tenses

-a P   occurs in perfectives, neg. subjs. and the
          simple hypothetical

-e F   occurs only in 'unmolested' simple subj.

-e P   occurs only in negative futures and 'molested'
          simple subj.

-ile   = recent past (polar to pre-radical -á-)

-ile P = remote past (polar to pre-radical -a-);
          zero perfect pos.

-ile F = zero perfect neg. (reverse behaviour to that
          of -e F in subj.)

-ile D = weak-bond remote and recent past

Here also a very considerable association may be
detected between sign and tense or aspect and strong/weak
bond. -a and -ile may also occur in OR tenses, when
they appear as -a R and -ile R respectively. For a
full treatment, see 323. Tenses.

    A most remarkable relationship exists between tenses
having post-radical -a- and pre-radical -laa- on the one

hand; and post-radical -e or -ile and pre-radical -lee-
on the other.   Every progressive, inceptive or completive
tense on a 'line' with a simple or perfective tense in -e
or -ile, whether positive or negative, has pre-radical
-lee- :   every progressive, inceptive or completive tense
on a 'line' with no simple or perfective tense in -e or
-ile, whether positive or negative has pre-radical -laa- .
The relationship is absolute: in tabular form[1] it is
perfectly clear:-

-a	-laa-	-e/-ile	-lee-
101	103, 104		
		11, 12	13, 14
		11, 12 neg.	13, 14 neg.
		21	23, 24
		21, 22 neg.	23, 24 neg.
31	33, 34		
31 neg.	33, 34 neg.		
(a) 01, 02	(a) 07		
(a) 01 neg.	(a) 07 neg.		
		(b) 05	(b) 03, 04
		(b) 05 neg.	(b) 03, 04 neg.
51, 52	53, 54; 57, 58		
		51 neg.	57, 58 neg.
71, 72	73, 74		
		71 neg.	73, 74 neg.
071, 072	073, 074		
011	013, 014		
S 01, 02 neg.	S 03, 04 neg.		
		S 01	S 03, 04
S 71, 72 neg.	S 73, 74 neg.		
		S 71	S 73, 74

[1] See also Table 1, facing p.148

In fine:

Pasts and Zeros having -ile, also have -lee- ;

Futures and Subjunctives having -e, also have -lee- ;

                    BUT

Anteriors, Pasts, Zeros, Futures, Hypotheticals,

Potentials and Subjunctives having -a (and <u>not</u> -ile

or -e), have -laa- .

2.4.   THE RADICAL

2.4.1.   In general, radical vowels may be i, e, a, o, u ;
ii, ee, aa, oo, uu ; ie (> yee), ia (>yaa), io (>yoo),
iu (> yuu); ui (> wii), ue (> wee), ua (>waa).[1]
Structural tones are either H or L, or, in the case of
long vowel radicals, HL or LL. Before nasal compounds,
all vowels are realized as long, and behave as such.

2.4.2.   Non-nasal consonants found before or after any vowel:
p, b; t, l, s(ʃ); k(c), 'g'/'j'/zero
f occurs commonly before i and u: occasionally before o -
but radicals in this latter group are mostly (?all) relatable
to exclamatory particles or 'ideophones', with the possible
exception of -FON- , draw (bow).
f occurs in 2nd radical position only in the curious
radical -FOOF- , pedal hard (bicycle). [ɸ fóò, with breathy
voice.]

'g'/'j'/zero does not occur before or after long vowels.

2.4.3.   Nasal consonants in 1st position are very selective:
it is easy to give a complete list:-

Before long vowel

-MÍIM-	drizzle
-NÍIN-	ascend
-NEEM-	loll: walk with upper body 'sloppy'
-MÁAM-	smooth (food)
-NAAM-	walk silently
-NAAN-	divide by grabbing
-ŊAAŊ-	growl, snarl
-MOOM-	shut (door)
-NOOM-	tie tight
-NOON-	sharpen
-NÚUM-	accelerate (bicycle)

---

[1] uo is of course indistinguishable from oo

<u>Before short vowel</u>

-MIN-	swallow
-MI(Y)-	dislocate
? -NY- (-nye)	defecate
-MÉT-	smooth (food)
-MEN-	sprout
-MEN-	bec. uppish, snobbish, a 'show-off'
-MÁT-	daub mud
-MAN-	take one's cut
-MAS-	daub mud
-NAK-	bec. soft, tired
-NAY-	make porridge, stir
-MÓn-	see
-NON-	bec. fat (meat)
-MÚM-	cram mouth with food
-NUK-	soften skin by rubbing

(The soft-smooth idea occurs in two-thirds of the short-vowel group.)

We see (i) nasal before long vowel must have nasal after.

(ii) nasal in 1st position is never followed by p, b, or l in 2nd. (m occurring only with T, S, and K in 2nd, and n only with K and zero in 2nd.) ie. consonant$_2$ is never <u>forward</u> of consonant$_1$ (short vowels).

Nasal consonants in 2nd position are also somewhat 'choosey'.

(i) n in 2nd is never associated with b or l in 1st.

(ii) m in 2nd is never associated with b in 1st (and not with l after long vowels.)

(iii) n never occurs after EE, AA, OO.[1]

---

[1] In fact n$_2$ doesn't like long vowels at all - it only has four radicals, two of which mean masturbate (of women).

2.4.4.   Consonants occurring before and after **diphthongal**
radical vowels are distributed as follows:

BEFORE		AFTER
. . f . . . s n k .	IE	. . . m t l . . . .
p b f m . . s n k(g)	IA	. . . m t l ʃ n . .
. b f . . l s n k .	IO	. . . m t l . n k .
. . f . . . s n k .	IU	. . . . t l . . k .
p b f . t . s . k .	UI	. . . m t l s n k .
p b f . . . s . k(g)	UE	. . . . t l s n k .
p b f . t l s n k .	UA	. . . m t l ʃ . . .

If we rewrite the 'after' table omitting first V -

IM	IT	IL	IS	IN	IK
EM	ET	EL	ES	EN	EK
AM	AT	AL	Aʃ	AN	.
OM	OT	OL	.	ON	OK
.	UT	UL	.	.	UK

- we see that many of the second elements in these diph-
thongal radicals are identical in shape with some of the
'oldest' and commonest extensions - this is clearly a
reflection of a group of basic CB radicals of shape
-CV- + vc- where -CV- is a 'root' and -vc- an extension.

2.4.5.   The varieties of the simple radical are:-

(a) -CVC-

(b) -CVVC-

(c) -ZVC- where Z is a consonant at structural level
     (and in CB) realized as zero in Bemba speech, except
     after an intrusive nasal, when it is realized as -j-
     before -i- and -e-, -j- or -g- before -o-, and -g-
     before -o- and -u-.

(d) -CVZ- where Z is a similar consonant; realised as
     zero in speech, except in this sense, that the radical
     -V- never fuses with any following vowel, whether of
     extension or post-radical (suffix)tense sign (where
     radical -V- is -A-, there is always a distinct -Y-
     between it and any following vowel, so these radicals
     could almost as well be classed as -CVC- type).

(e) -CV- where -V- is a vowel not followed by a consonant
     in Common Bantu. This variety has five sub-types in
     Bemba, one for each of the vowels:

(i)   Vowel I: -PÍ-, get ripe   -LÍ-, eat   -SÍ-, leave
(ii)   Vowel E: -CÉ-, get light (of darkness)[1]
(iii) Vowel A: -PÁ-, give   -BÁ-, be   -TÁ-, play

---

[1] -nya, defecate, is presumably -NYE- because it has -nyeel-
and -nyeele. Or it could indeed be -NYA- (+ -il- > -nyeel-,
+ -ile > -nyeele).

(iv) Vowel O: -NÓ-, drink

(v) Vowel U: -PÚ-, finish -FÚ-, die -TÚ, pound, bec.
sharp
-SÚ-, soon -LÚ-, fight -SU͵ pick (fruit)

Examples of these when followed by:

-a	-il-/-el-	-ile/-ele
-PÍa (-pyé)[1]	-PÍIl- (-píil-)	-PÍile (-píile)
-CÉa (-cá)	-CÉel- (-céel-)	-CÉele (-céele)
-PÁa (-pá)	-PÁil- (-péel-)	-PÁile (-péele)
-NOa (-nwá)	-NOen-[2] (-nwéen-)	-NOene[2] (-nwéene)
-PÚa (-pwá)	-PÚil- (-pwíil-)	-PÚile (-pwíile)

(f) -ZVZ- behaviour as (c) for Z_1, and (d) for Z_2. One
example only: -O-, swim (CB *-yóg-).

(g) -ZV- behaviour as (c) and (e) above: two examples
only: -Y-, go, and -W-, fall (CB *-gi- and *-gu-)

Varieties with nasal compound in second radical con-
sonant position include:-

(h) -CVNC- (-CVVNC- where -VV- are identical vowels
would of course be indistinguishable from
-CVNC-)

(i) -CVVNC- where -VV- are different (see 2.4.1. for
variants)

(j) -ZVNC- } like (c): but see below for note on
(k) -ZVVNC- } behaviour after intrusive nasal.

The extended radical may occur as any of the above

types plus an extension itself of the shapes -v-; -vc-,

-vcvc-, -vcvcvc- and others: see below, Extensions.

2.4.6. Polysyllabic[3] radicals also occur, which cannot be

---

[1]All final vowels are realized as short (except in exclamatory
particles, which have a different phonology from the rest of
the language.

[2]We would expect -NOel- (pr. -nwéel-) etc.

[3]There are 2 monosyllabic short vowel radicals which **behave
as if** they consisted of a -C- radical plus -vc- 'formative':
there is in the one case obviously no related simple -C-
radical, and in the other the whole -CVC- is a well-known
Bantu root. They are: -Pán- (to 'almost')
and -Món- (to (get to) see)
But see p. 92 & p 56.

broken down into identifiable monosyllabic radicals plus
extensions; in these, we may find any of the above-quoted
shapes plus further formatives of shapes such as -vnc-,
-vcvnc-, -vncvc- or -vncvcvc-. See below, Polysyllabic
Radicals.

2.4.7.   A few long-vowel (-CVvc-) radicals occur, in which the
second more behaves as if it were an extension, but for
which it is difficult or impossible to set up separate -CV-
radicals and -vc- extensions.

2.4.8.   Examples of phenomenon 2.4.5(c):-

níl-´-n-Zup-a P →	niíngupá	06	I have married (tr)
n-Zoc-e F	ńgocé	S 01	let me burn (tr)
níi-´-n-Zeb-a P	niíngábá	06	I have spoken truth
bá-alí-n-Zeb-ele D	báalínjebele	12	they told me
n-Zis-ile P	njiʃílé	05	I have come ...

2.4.9.   It is a general phonological rule in Bemba that the
structural combination nasal + voiced consonant + any vowel +
nasal + any consonant is realized in speech as homorganic
nasal + vowel + homorganic nasal + consonant. The voiced
consonant is not itself heard, though the nasal 'left behind'
still acts as a nasal compound in that any _preceding_ vowel
is lengthened. Thus:

n-bómb-ele P →	⁻mómbelé ...	05	I have worked ...
n-land-ilc P	⁻nandílé ...	05	I have spoken ...

Hence, where we have a radical of the form -ZVNC- preceded
by N- the following effect is observed[1]:

n-Zónd-ele P (>n-gónd-élé) *ŋgondele ⁻ŋondele ... 05
                                           I have become thin

Where the radical vowel is A, O, or U, we have:

N-ZVNC-   >   *ŋgVNC-   →   ŋVNC-

Where the radical vowel is E or I we have:

N-ZVNC-   >   *ɲjVNC-   →   nyVNC-

---

[1] This effect also occurs (a) with rads. of the shape -CVNS-
(where S = semi-vowel)(ie. those ending in -mw-, -my-; -nw-, -ny-)
in certain individuals' speech; (b) with rads. of the shape -VN-
eg. bá-a-n-Zum-a → bááɲuma 42, they hit me (just now).

Examples: (remembering that -ng- is heard as -ŋg-)

	mù-i-n-Zámp-a ⟶ mwiingámpa	neg. S O2	don't interrupt me
BUT:	mù-i-n-Zámb-a	mwiiŋámba	neg. S O2	don't slander me
	nii-n-Zónt-a P	níingónta	O6	I have warmed myself ('had a warm')
BUT:	nii-ⁿ-n-Zónd-a P	níiŋonda	O6	I have become thin
	n-Zank-e F	ngankè/njankè	S O1	let me catch
BUT:	N-Záng-e F	ŋangè/ŋyangè	S O1	let me dance
	nii-ᵛ-n-bint-a P	niimbínta	O6	I have rushed about
BUT:	nii-ᵛ-n-bínd-a P	niiminda	O6	I have prohibited
	n-lánt-a	ndánta ...	O1	I talk nonsense ...
BUT:	n-land-a	nanda ...	O1	I talk ...

2.4.10.   The relationship between CB and Bemba radical vowels and
consonants:

(1) **Vowels**

CB	$\frac{1}{5}$	i	e	a	o	u	$\underset{5}{u}$
Bemba		i	e	a	o	u	

(2) <u>Consonants</u>   Select CB consonants from along top,
followed by CB vowel from down side.   Corresponding Bemba
consonant, where different from CB, is found in appropriate
column on appropriate line.   Z stands for zero consonant
preventing fusion of prefixes/infixes and radical, O for
zero allowing fusion.   (Short-vowel tense signs are un-
affected by Z, and long-vowel tense signs never fuse.)

	P	B	M	T	D	N	C	J	(p)	K	G	(ŋ)	Y
$\frac{I}{5}$	F	F		S	S		S	S		S	S		Өj
I					L		S	S		*	Sj		Өj
E					L		S	S		*	Zj		Өj
A					L		S	S			Zj		Өjg
O					L		S	S			Zj		Өg
U					L		S	S			Sg		Өg
$\underset{5}{U}$	F	F		F	F		S	?		F	F		Өg

When preceded by n, both S and Ө give j before i and e and
g before o and u.   Before a, S gives g and Ө gives either
g <u>or</u> j (see 2.4.9, 2.48.   Also 2.2.2.)

*Written and pronounced C.

2.4.1D. Specific and General 'Meaning' as a Grammatical Category
in the study of verb-radicals

Some simple radicals will accept extension P (the
'passive' -w-); others will not. Some will accept
extension Y (the 'causative' -y-); others will not.
(Those radicals taking Y sub-divide into those which
take an extra object as a result of adding Y and those
which are unaffected by Y or even rendered incapable of
taking an object. (See below, 2.5.1.2.)) Some will
accept A (the 'applicative' -il-/-el-); others will not.
Indeed, the whole list of possible extensions (see 2.5.)
may be tried against every simple radical - if we allow
ourselves the luxury of using specific meaning as a
sorting device, it will at once be apparent that certain
radicals and certain extensions are mutually incompatible:
for instance, we cannot conceive of a passive of a radical
itself meaning 'become heavy'. Others will seem highly
unlikely, unlikely, just possible, possible and very
probable: but we shall often find cases where there seems
no reason why a given radical should not take a given
extension and yet refuses: or, alternatively, cases where
radical and extension look mutually incompatible from an
English viewpoint, and yet turn up together quite happily
in Bemba. Think, for instance, of -LÓK- (rain), which
has a 'passive' -LÓKw-, meaning something like 'get rained
on' ...

Ignoring meaning altogether[1], it would be possible
to sort all simple radicals according to the extensions
they will and will not accept: an entirely formal pro-
cedure at a morphological level. Having made such a
classification, we should find that   we had also

---

[1] Having already used it to identify the radicals them-
selves, of course!

classified the radicals according to certain broad meaning-
categories (eg. 'neutral', 'transitive', 'intransitive',
'semi-transitive', 'active', 'dual', 'state', 'action',
and so forth); we should also find that several of our
most classical categories (eg. transitive/intransitive)
evidently do not properly apply to Bemba.

We may also sort all radicals (simple, extended
or polysyllabic) according as they can take no object,
a special object, one object, or two objects: an entirely
formal procedure at a syntactical level. Again, by so
doing, we find that we have sorted our radicals into
broad meaning-categories.

We may sort according as radicals occur more often
with certain tense signs; eg. with tense signs from
columns 3 and 4 of the Tense Table (more especially
03/04) or with tense signs 15/16, or with tense signs
05/06. Once more we note that a morphological classi-
fication coincides with or results in a semantic division:
those radicals expressing continuous actions or gradual
changes of state are more often found in association with
eg. tense signs 03/04, while those expressing instantaneous
action or change of state are associated more frequently
with 15/16 or 05/06. This relationship is by no means
exclusive: all but a very few very special radicals
can be found in every possible tense.[1] If an 'instan-
taneous' radical is found in a tense from columns 3 or 4,
then the verb expresses the idea of a series of instan-
taneous changes of state or acts. If a 'continuous'
radical occurs in eg. 15/16 or 05/06, it means the speaker

---

[1] Among the 'specials' are: -LI (be), -BÁ- (be), -TI (act,
do, say, think), -PANG- (intend), -PÁN- (all but), -SÚ -
(soon, about to)

is considering the action as a whole, as one single act, in the past, but with effects reaching up to his Now. We shall have occasion to return to this point again in 3.4.

Further sorting devices may be adduced: some radicals must be followed by the enclitic -ko (Cl. 17); others may be followed by -po (16) and/or -ko (17), and/or -mo (18);   others can never be so followed. Some may be followed by -nai? (what?);   others may not.

A small group, in a very specific semantic category (eg. wishing, allowing, doubting, denying) are very often followed by tenses from Table S - that is, by 'Subjunctives'.   Another small group (eg. see, hear, meet, leave) are not followed by a verb in a relative tense in such contexts as "... everyone you see (who is) w orking ..." / " ... the girl you left crying ..." Instead, the last verb normally occurs in a main sentence tense such as 03/04 or 05/06.

There are evidently many different ways in which the specific or general meaning of a radical may affect morphology as well as syntax: thus, within a single-word verb-form, at a morphological level, we may spot what appears to be a Y-extension;   syntactically, this may have a reflection in the association of the verb-form with an extra object: but, because of their meanings, certain radicals will simply not be found with Y, while others will.

There are no shape-signals to tell us which simple radicals will or will not associate with which extensions, or which 'prefer' which tenses: there are certain general-ized meaning-signals, though they are by no means clear,

or rigidly interpretable. The only workable proßedure
is clumsy - to label each radical as we come to it,
finding out what each in turn will and will not do.
However, once we have done this, I believe we shall have
a set of very useful categories. Le me hasten to add
that I have not achieved this end for Bemba: indeed, I
have not yet gone further than making a tentative set of
divisions according to behaviour with and without Y (or
C), tendencies with tenses 03/04, 05/06; 01/02, 15/16;
number of subject, and types of 'object' associating.

    It would of course be possible to use the first
three criteria only, in order to stay strictly within
the single-word morphological level; or, alternatively,
to introduce further morphological criteria (such as
capacity of radicals to associate with extensions P,
and A, and N...) However, we have to make our decision
somewhere; and it seems to me that the divisions achieved
by using the Criteria cited are perhaps both more thought-
provoking and informative - more effective as a heuristic
device - because of the inclusion of the fourth; and
better related to each - more of a coherent nexus -
because of the exclusion of the rest. I do not for a
moment suggest that this 'classification' could not be
bettered: a different selection of similar criteria, or
even a different approach altogether, might be found yet
far more revealing. But we do seem to need some such
classification of radicals to replace the old 'v.tr.'
and 'v.intr.'[1]

---

[1] Prof. Doke's 'import' classification (SBL p;66) is not
concerned to divide up simple (basic) radicals according
to their behaviour/meaning content: he includes:
"(1) intransitive verbs... stative and neuter forms"
(which may or may not be 'simple'); "(2) transitive

The following tentative list is presented then
merely as an 'indicator' - a thorough-going analysis
would have to be made the subject of a separate thesis:

(1) Neutral Action (a)

Examples:

-PUPuk-   fly (ie. fly about)⎫ take no object (or
-LIL-   cry   ⎬ spec. (adv) obj.) and Y
-MEN-   sprout   ⎪ take obj. (meaning "cause
-PIB-   sweat   ⎭ sg/sy to act".

        Neutral Action (b)

Examples:

-NUNK-   stink, smell   takes no obj. (or spec.

                                      (adv.) obj.) and + Y

                                      takes obj.; but 'no-Y'

                                      and 'Y' forms do not bear

                                      the normal 'simple-to-

                                      causative' relationship.

viz.

ícuuʃi cíléénúnká   O4   the smoke smells
ndéénunʃa ícuuʃí   O3   I (can) smell smoke

(continued from p. 36)
verbs, which need an object ... incl. causative and most
applied forms". (Again this group may contain both simple
and extended forms with Y, C or A); "(3) locative verbs,
which need a locative adverb ... incl. certain applied
forms of verbs of motion". (ie. simple of -il-/-el-);
"(4) Agentive verbs, which need an agentive adverb...
incl. verb passives" (ie. simple or -w-); "(5) conjunc-
tive verbs, which need a conjunctive expression ... incl.
reciprocal forms" (ie. simple or -an-); "(6) instrumental
verbs, which require an instrumental adverb ..." (simple
or -il-/-el-?). This type of classification seems to be
dependent largely on translation for recognition purposes.

Neutral Action (c)

Example:

-KUUK-   blow (of wind)?   with no possibility of Y
or C; no obj. (or spec.
(adv.) obj.)

(2)   Neutral State (a)

Examples:

-PEN-   bec.mad, aberrant   take no object, but + Y
or C

-BOI-   bec. rotten   take obj. (meaning "cause

-FIN-   bec. heavy   sy/sg to change its state")

-TÚ-   bec. sharp

Note the odd forms:

-KOTeeʃ-   cause (sy) to grow old, and

-FINiiʃ-   cause (sy) to bec. fierce/'heavy'

Neutral State (b)

cf. 1(b) above.

Examples:

-PÓL-   get better, recover (health);

    +Póʃ- (from *-PÓLy-) means 'greet (sy)'

-TÚMP-   bec. stupid;

    -TÚMPy- means 'spoil' (sy) by not correcting.

Neutral State (c)   No Y (or C)

Example:

(?) -BÁ-   be   (this may be unique member of 2(c))

(3) <u>Neutral (?)near-transitive</u>: spec. obj. only, no Y

or C form.

<u>Example</u>:

-ÓNT-   warm oneself at fire (-ÓNTel- ... in the sun)

always take umúlíló, fire (or ékasubá, sun) as 'object'.

(Note: -ÓNTeeʃ- umúlíló, warm (sy) at a fire)

(4) <u>Action, near-transitive</u> (a):   special (abstr.?) obj.;

Y (or C) take extra obj.

<u>Examples</u>:

-END-	travel	will take eg. milúndú yóónsé, imiʃí yóónsé, mpangé yóónsé, inʃílá ..., umúsébó... as objects - meaning everywhere (with difficulty), all villages, everywhere, (s) ... path, (s) ... road, respectively. -ENʃ- , cause (sy) to travel, drive (car) etc.
-PIT-	pass	-PÍʃ- (from -PÍTy-) cause sy/sg to pass: move (sg) (into house)
-BOMB-	work	will take umulimo (work) as obj. -BÓMFy- (from -BÓMBy-), cause (sy) to work. cf. -BÓMBeʃ-, cause (work) to get worked.

<u>Action, near-transitive</u> (b):   spec. obj. Y form extra obj.,

but not causative to simple.

<u>Examples</u>:

-SÓS-	speak	(you speak, saying... then the words you say; you also speak améʃuǎí, words; but you -SÓʃ- (= -SÓSy-) a person, meaning 'speak to' him, not 'cause him to speak'.)

-CIND- dance (you -CIND- a dance, but you -CIN∫-
(= -CINDy-) a woman, meaning 'partner'
her in a dance, not 'cause her to
dance'.)

Action, near-transitive (c): spec. obj., no Y or C form

-Y- go (in∫ílé, umúsébó only as objects; and
-IS- come no possible causatives for -Y- and -IS-)

(5) Action, transitive (a): 'any' object(s). Y or C form
takes extra obj.

Examples:

-SÚM- bite (-SÚMy- cause (sg/sy) to bite)
-SEK- laugh (-SEKe∫- cause (sy) to laugh at)

Action, transitive (b): 'any' obj.; Y (or C) form not
causative to simple.

Examples:

-LIM- dig, 'cultivate' (gardens, crops)
(-LIMy- greet (sy) who is -LIMa'ing)
(-LIMi∫- cause (garden) to be -LIMwa'd)

-SAMB- wash (self, things) (also takes ámer∫í (6), water,
as spec. obj.)
(-SAMFy- wash (things); not cause (sy) to -SAMB-)

Action, transitive (c): 'any' obj., no Y (or C)

Examples:

-KAK- tie
-TOB- smash

and many more for which we would expect to find causatives.

Note also -LONGee∫- cause (sy) to pack.

Further special categories are:-

(6) Dual (neutral):

Always two parties involved, subject plural (unless verb followed by na- with, when subject may be singular)

(a) Y form takes extra object:

Examples:

-LU- fight (plural subject, no object) (-LUisy- = fight (sy))

-CEN- romp (together), play jokes on each other, bec. merry (together)

(-CENy- = joke with (sy), play jokes on (sy))

(b) -CIMB- submit (plural subject, no direct obj.)
(-CIMFy- (= conquer) may take obj. or not.)

(c) ?? No Y

Note that certain radicals by nature of their meanings always involve two people, but nevertheless take singular object, eg.

(i) sing. subj., one obj. with Y takes extra obj.

-UP- marry (of man)
-UFy- marry someone to sy

(ii) sing. subj., one obj., Y form not causative.

-KUND-   'swive' (Chaucerian English)

-KUNʃ-   is not causative to -KUND-, but means, give
       special (magic) charm to a girl at her
       cisungu, or after first menstruation.

Under these headings (or initially) we may make
another quite different, but for tense-usage very
revealing division, according as the radical refers
either to a 'continuous' act or state-change, or to
an 'instantaneous' act or state-change, or both.

Thus -PIB- , sweat, always takes time; -IKÁl- ,
bec. seated, never does. This means we often find
-PIB- in 03/04, while the 'corresponding' tenses for
-IKal- are 05/06, or even 41/42.[1]

-LIL- , cry, sound, may or may not take time (eg.
of a child - aléélílé (04) he is crying; but of a gun -
yéélílé (42) (it went) bang!)

-FIN- , bec. heavy, is usually in 15/16 or 05/06,
while -PÍ-, bec. ripe, bec. cooked, burn is often in
03/04.

-IPik- , cook (tr.), is often found in 03/04,
because cooking takes time, whereas -TOB- , smash, is
usually in 41/42 or 05/06, because smashing is instan-
taneous.

Some radicals for obvious reasons 'avoid' 41/42
altogether and may often occur in 03/04: as for
instance -ÓND- , bec. thin: whereas others, also
'state-change' in type, are quite often found in 41/42

---

[1] In 03/04 it would of course imply "a series of becoming-
seateds".

and rarely in 03/04 - eg. ₰PAP- , bec. surprised.

We might therefore classify as follows (though no doubt there are other ways just as good, if not better):-

(A) process, or event taking time: eg. 'cooking'

(B) instantaneous event or change: eg. 'put', 'cough' (once)

(C) action or event initiating temporary process or state capable of occurring often: eg. 'lift-to-carry', 'lie-down-to-sleep', 'get-to-see'.

(D) action or event initiating process or state normally occurring once: eg. 'look-after-country' (of chief)

(E) action or event initiating process or state only occurring once: eg. 'bec. strong, fierce, black, heavy'.

✓ Correct; nothing omitted

2.5.   Extensions

Both morphologically and semantically, these belong
to clearly identifiable series: they are elements
occurring after verb radicals and modifying their
basic meaning in a regular manner (that is, a given
extension normally modifies meanings of radicals in
a certain direction).

Not all radicals can be associated with all ex-
tensions: many associations are naturally precluded
on semantic grounds, and still others are phonologi-
cally determined.   But there are also many cases in
which there is no apparent reason why a given radical
should not be found in association with a given
extension, and yet is not.

In Bemba, as in most Bantu languages, all extensions
are structurally low-toned.   The simple extensions are
listed overleaf:

(Y)[1]	-y-		y-causative	(AA)	-ilil-/-elel-: -inin-/-enen-	completive	(FA)	-ail-	frequentative (active)
(A)	-il-/-el- : -in-/-en-		applicative	(AN)	-ilik-/-elek-: -inik-/-enek-		(FN)	-aik-	frequentative (stative)
(N)	-ik-/-ek-		neutral						
(K)	-ik-/-ek-		ik-causative						
(I)	-iʃ-/-eʃ-		intensive						
(C)	-iʃ-/-eʃ-		iʃ-causative	(CP)	-iiʃ-/-eeʃ-	causative-passive			
(S)	-am-		stative						
(T)	-at-		at-contactive						
(R)	-an-		reciprocal						
(U)	-ul-/-ol- : -un-/-on-		reversive (active) (-ul- 'undo')	(UU)	-ulul-/-olol-: -unun-/-onon-		(FU)	-sul-	frequentative (pej.) (active)
				(UV)	-uluk-/-olok-: -unuk-/-onok-		(FV)	-suk-	frequentative (pej.) (stative)
(V)	-uk-/-ok-		reversive (stative)						
(P)	-w-		passive						

[1] The letters allocated are all, as far as possible, mnemonics - in some way or other!

Combinations of these are very common:-

	-ilik-/-elek-	(AY)	-iʃ-	?(FUA)	-suil-
(AP)	-ilw-/-elw-:-inw-/-enw-	(YA)	-iʃ-	?(FVA)	-suik-
(AAP)	-ililw-/-elelw-:-ininw-/-enenw-	(CC)	-iʃiʃ-	?(UA)	-uil-
(AAY)	-iliʃ-/-eleʃ-:-iniʃ-/-eneʃ-	(YRY)	-iəny-	?(VA)	-uik-
	-iliʃ-/-eleʃ-:-iniʃ-/-eneʃ-	(RY)	-əny-	not (UV)	-uluk-
(NP)	-ikilw-/-ekelw-	(SA)	-əmin-		-uluʃ-
(..I)	-ikiʃ-/-ekeʃ-	(SK)	-əmik-		-ulukil-
(..R)	-ikən-/-ekən-	(SU)	-a'mun-		-uʃ(i)əny-
(..RY)	-ikəny-/-ekəny-	(SV)	-əmuk-		-ufyəny-
		(TI)	-atiʃ-	?	-eʃəny-
		(?)	-alik-		

Several tone values and very many of the English
meanings for key examples are in contradiction or
serious disagreement with those of MGVL. However,
all such cases have been checked and cross-checked
with several informants over a period of six years,
and the present versions may be taken as correct.
(Even when the conflict amounts to inversion of
meanings, or meanings having nothing to do with each
other.) The MGVL versions were in all these cases
specifically denied, and presumably arose from
'eccentric' informants, or from misunderstandings,
or both. In a few cases I have inserted a special
individual note, but only where some issue of
general importance is involved.

2.5.1.1. <u>The passive -w- (P)</u>: indicates that the action expressed
by the (simple radical) is performed upon, not by, the
grammatical subject.[1] There is little remarkable about the
behaviour of this extension at structural or phonological
levels. The *-ile suffix, as we shall see, is split by -w-[2]
giving *-ilwe.

Example:

-MAS-   daub   -MASw-   be daubed (by an agent)

Most radicals ending in -I-/-Y- or -U-/-W- add -iw-/-ew-
instead of -w- :

-LAY-   promise   -LAYiw-   be promised

-NAY-   stir (porridge)   -NAYiw-   be stirred

-LÍ-   eat   -LÍiw-   be eaten

-TÚ-   pound   -TÚiw-   be pounded

-SÍ-   leave   -SÍiw-   be left

-NÓ-   drink   -NÓew-   be drunk (of drink! not
                                             bec. drunk, of person)

And radicals with extension -i-/-y- add -w- direct, giving eg:

-ᴛASi- (pr.-TAʃ-) praise   -TASiw- (-TAʃiw-) be praised

-TUMi- (pr.-TUMy-) send   -TUMiw-   be sent

One radical ending in -Y- adds -ikw-, and one already having
an extension P with no passive implication, forms its
passive by adding -ekw- (or -ikw- !)

-FWAAY-   want, need   -FWAAYikw-   be wanted, needed

-TÉMw-   love   -TÉMwekw-/-TÉMwikw- be loved

(-KÚMBw-   desire, be desired, has no related -KÚMB-, but is
itself both active and passive in meaning: -KÚMBwikw- is
<u>only</u> passive.)

---

[1] The agent is normally insensate (eg. wind, water, weather,
etc.): if an intelligent agent is implied, the passive is
avoided.

[2] N.B. There are 2 verbs ending in a -w- which is not an
extension at all: and therefore adding *-ile direct:

       -ÁFW-   help   -ÚMFW-   hear

There are several verbs carrying this extension but having
no passive meaning (see below: Polysyllabic radicals):

-FILw-	bec.unable, baffled	(no -FIL-)
-CIMw-	err, make mistake	(no related -CIM-)
-TENDw-	bec. bored	(no -TEND-)
-BÚLw-	come to lack	(-BÚL- bec.lacking)
-FÚLw-	bec. angry	(no related -FÚL-)
-TÉMw-	love	(no related -TÉM-)
-CÉELw-	get late (may be genuine passive of -CÉel-, from -CÉ- bec. dispersed (darkness) (not 'dawn', because day dawns, whereas night -CÉ's))	

2.5.1.2. The causative -i-/-y- (Y):   when added to a simple radical,
this extension usually produces the effects:

(a) 'Cause or help someone or something to do' (the action
expressed by the simple radical).

Example: -LIL-   cry, make noise

          -LISy- (pr. -LIʃ-) play musical instrument; cause
                             sg. to make noise

(b) 'Treat someone as if he had become' (what is expressed
by the simple radical).

Examples: -PEN-   bec. mad, queer

           -PENy-   drive mad; treat as mad

This extension is associated with certain regular changes
in the final consonant of the simple radical.

-(M)-Py-	⪢ -Fy-	Ex: -BÍIP-	bec. bad	-BÍIFy- do wrong;do harm
-(M)-By-	⪢ -Fy-	Ex: -LUB-	bec.lost	-LUFy- lose
-(N)-Ty- (pr.-ʃ-)	⪢ -Sy-	Ex: -PÍT-	pass	-PÍSy- cause to pass (put inside(house)
-(N)-Ly-	⪢ -Sy-	Ex: -PÓL-	bec.well	-PÓSy- (greet),make well cure
-(N)-Sy-	⪢ -Sy-	Ex: -SÓS-	speak	-SÓSy- speak to
-(N)-Ky-	⪢ -Sy-	Ex: -NAK-	bec.soft, tired	-NASy- soften, tire

Note that in all cases -Sy- is pronounced -ʃ-

But there are many common verbs carrying this
extension, sometimes having no related simple radical,
and often no clearly <u>causative</u> meaning[1] (see below,
Polysyllabic Radicals); as for instance:-

-ÁNSy-	baffle (<u>no</u> related simple radical)	
-TESy-	hear, listen to, understand (<u>no</u> related simple radical)	
-TAMFy-	drive away; mount, tread (in mating) (<u>no</u> related simple radical)	
-SANSy-	mix	(~?? -SANS- filter)
-ÁFy-	bec.difficult (~ ?? -ÁB- speak truth - "it has caused (me/us) to speak truth!!")	
-LESy-	forbid	(~? -LEK- one meaning of which is 'leave off')
-KÚMy-	touch	(~? -KÚM- reach)
-CENy-	joke with	(~-CEN- play jokes on each other (dual); romp together)
-TÚUSy-	rest	(~-TÚUL- put down load)

N.B. -KÚMany- meet, is related to -KÚMan- meet, and

-TASy- praise, is related to -TAK- praise (rare)

- but their meaning-relationship is clearly not that of
'causative' to 'simple' !

The *ile suffix behaves in a curious way in association
with this extension (see below 2.6.2.2.). The phono-
logical change produced in the final consonant of the
radical is unaffected, with a rather odd result in the
case of radical vowels E and O, viz.

	-TASy- + *-ile	-tas-iʃe	-taʃiʃe
but:	-TÉSy- + *-ile	-tés-eʃe	-téseʃe
and:	-SÓSy- + *-ile	-sós-eʃe	-sóseʃe

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[1] That is, no idea of "making sy/sg do sg. (The act of the
related radical, if any)". The Bemba feel the same
about these.

Special notes on Meanings of the extension Y:

1.   There are verbs carrying this extension which are simply
the true transitives of the simple form, itself always a
dual.

Examples:

-CEN-   play jokes on each other, say funny things to each other.

-CENy-   play joke on someone, make someone laugh.

2.   Certain verbs which are neutral in their simple form
also become 'transitive' with this extension:

Examples:

-NUNK-   stink (no obj., except adverbial-type)

-NUNSy-   smell (tr)(one obj) OR cause (sg) to stink (to sy)
                               (one or two objects)

-CÍMB-   conquer (intr)(no obj)

-CÍMFy-   conquer (either tr or intr)

-CIND-   dance (in general)

-CINSy-   (you -CINSy- a woman) 'partner' - (the idea of
               'cause to dance' would be expressed differently)

-SÓS-   speak ('obj' can be 'words' only)

-SÓSy-   speak to (sy)

-LAND-   talk

-LANSy-   propose (marriage) to (a girl)

3.   Others taking a special object, or special kind of
object in their simple form, may take the same object
plus another with this extension.

Examples:

-LIND- (ínʃiku)   stay a day(, ... days?)

-LINSy- (ínʃiku)   stay away from work one day; or make
                       (sy) wait ... days.

4.   Others may take one object in both simple and
'causative' forms:

Examples:

-LUB-	not to recognise, not to get right, not to know (one obj.)
-LUFy-	cause not to recognise, etc. (one obj.)
cf.-LUB-	get lost (no obj.)
-LUFy-	lose (one obj.)
-UP-	marry (a woman) (one obj.)
-UFy-	cause (a man) to marry (one or two obj.)
OR	cause (a pair) to be (get) married, ie. 'marry' in the sense that a priest 'marries' someone

5. Others may be either neutral or near-active in their simple form and similar in their 'causative' form, yet with a difference in precise application:

Examples:

-PÁL-	bec. like, resemble (younger -PÁL-'s older)
-PÁSy-	bec. like, resemble[1] (older -PÁSy-'s younger)[2]
-CÍL-	surpass (in abstract quality)
-CÍSy-	surpass (in concrete possessions)[3]

6. Others apparently scarcely change meaning at all.

Examples:

-SAMB-	wash (tr.) oneself or things
-SAMFy-	wash (tr.) things

7. Some by their nature must change meaning a little.

Example:

-TÚMP-	bec. stupid
-TÚMFy-	fail to correct (sy) in stupidity; make (sy) look stupid; treat sy as stupid. (You cannot exactly 'cause sy to bec. stupid".)

These remarks also apply to certain verbs carrying extension

(C) q.v.

---

[1]Not 'cause to resemble' (MGVL)

[2]Note also that 2 things or people may -PÁLan-, ie. resemble each other (neutral, or dual). But a person may -PÁLany- something or someone to something else or someone else, ie. (a) compare sg/sy with sg/sy or (b) cause sg/sy actively to resemble sg/sy else.

[3]Not 'causative of -CÍL-' (MGVL)

It must be remembered that by no means all radicals apparently semantically capable of taking (Y) do in fact do so. Many take (C), a few take (K), and many more simply refuse to form causatives of any kind.

Thus -PEMB- wait, has -PEMBeʃ- for both (C) and (I) ("-PEMFy-" does not exist); -KAK- tie, has no (Y), (C), or (K), in company with many (perhaps most?) transitive simple radicals.

2.5.1.3. The applicative -il- (A): used to indicate that the action of a simple radical is performed on behalf of, towards or with respect to some object or person; to express manner of, or reason for performing the action; to indicate that the action is performed by a certain instrument; or at a certain place; or that motion towards a place is implied.

The phonological behaviour of this extension is surveyed in the following table:

radical vowel	final consonant of rad. non-nasal	final consonant of rad. nasal
I A U	-il-	-in-
E O	-el-	-en-

Examples:

-FIK-	arrive	-FIKil-	arrive at, for
-MAS-	mud	-MASil- (pr.-maʃil-)	mud-up, mud for
-LUB-	get lost	-LUBil-	get lost at, for
-TAN-	refuse (sy sg)	-TANin-	refuse for
-LEK-	leave	-LEKel-	leave at, for
-SÓS-	say	-SÓSel-	say for
-TÉM-	lop	-TÉMen-	lop for, at
-END-	go, travel	-ENDel-	go by means of

Examples of radicals of shape -CV-[1] (see also p.30):

-PÁ-	give	-PÁ- + -il-	-péel-	⎫	
-BÁ-	be	-BÁ- + -il-	-béel-	⎬	normal
-CÉ-	'dawn'	-CÉ- + -el-	-céel-	⎭	
-NYE-	defecate	-NYE- + -el-	-nyeel-	(?*-ɲE- or	
				*-NYE-)	
-NÓ-	drink	-NÓ- + -el-	-nwéen-		

An exception is -MÓN-, having -mwéen- as its applicative:
this could be accounted for by regarding -MÓN- as struc-
turally -Món- (the same structure would also be appro-
priate to its behaviour with *-ile suffix, see 2.6.)

N.B. (a) Extensions Y + A > (pr.) -iʃ-/-eʃ- (see below)

R + Y + A > (pr.) -ani ʃ i ʃ- (see below)

U + A > -wiil-/-weel-: -wiin-/-ween-
(see below)

P + A > -ilw-/-elw- : -inw-/-enw-
(see below)

(b) Radicals already carrying (AA) (Completive) and
(AAA) (Completive for -CV- radicals) do not change.

There are some cases of an unpredictable change
in meaning:

-NÓ-	drink	-NWéen-	drown
-LÍ-	eat	-LÍil-	eat well (good food)
-KÁan-	refuse, deny	-KÁanin-	exonerate
-EB-	tell	-EBel-(+ po)	tell (ay) frankly, tell outright

---

[1] Common Bantu evidence so far indicates the following:

*-gi- go (-ile)   *-pí- burn (-ile)   *-lí- eat (-ile)
*-ne- defecate (-ele) *-ké- clear up (-ele)
                       *-pá- give (-ile)   *-bá- be (-il-)
                       *-pó- finish (-ile) *-nó- drink (-ene)
                                           *-tó- pound (-ile)

*-gu- fall (-ile) *-du- fight (-ile)
*-dụ- come out from (?) *-kụ- die (-ile)

(See Meeussen, *Africa* xxii, 1952, p.367 et seq.)

From the Bemba evidence it seems likely that 'finish' is
*-pú- and 'pound' is *-tú- ; and that the Ganda -ggwé,
-wéddé (finish) is given by both *u and *o → o and
o + i → e(e) (as in Bemba itself). The Yao -twa, -twele
(pound) is parallel.

-í-BÁ-il- > -íbéel- bec. different (from sg. else),
bec. distinctive, is not really unexpected: if a thing
"be's for/to itself/on its own behalf" it is distinct!

2.5.1.4.   The neutral -ik-/-ek- (N) (Also known as the stative):
If a verb with the simple radical is active and transitive,
the addition of this extension converts the verb to an
intransitive verb of potential state: it cannot be used
if an agent is actually mentioned, since it indicates the
state or condition to which the subject of the verb has
come, but it does imply the existence in potentia of an
agent. (It often gives an idea of bec. '-able' (or '-ible')
to an Englishman)(in contradistinction to -am- (S), which
implies no agent). It naturally cannot take an object.

Normal rules of vowel harmony are applicable.

Examples:

-TOB-	smash (tr.)	-TOBek-	get smashed/smashable
-LUB-	get lost/not to recogñiae	-LUBik-	pass unnoticed
-MÓN-	(come to) see (tr.)	-MÓNek-	(come to) get seen (bec.visible)
-LUND-	join (tr.)	-LUNDik-	get joined

(buʃé) cí-la-pet-ek-a D ⟶ (buʃé) cílapéteka? 02
is it the sort of thing that gets bent (if you bend it)?
                = is it bendable?

There are some cases of polysyllabic radicals having
an 'extension' similar to this in shape (and taking no
object), but for which no identifiable simple form exists.
(See below, Polysyllabic Radicals).

Examples:

-KÁLik-	stop, of rain
-KÁSik-	bec. red
-SANik-	bec. bright, light

2.5.1.5. The Causative -ik-/-ek- (K): mostly causative to radicals
with extension -am- (S); meaning similar to (Y) above.
There are some cases where (K) is added to a simple radical
to give causative meaning. The obvious syntactical dis-
tinction between (K) and (N) is that (K) takes an object,
while (N) cannot.

  Normal rules of vowel harmony are applicable.

Examples:

-ÚM-	bec.hard, dry	-ÚMik-	cause to bec. dry, hard (also bec.disobedient)
-PÍNDam-	lie across	-PÍNDik-	lay across
-TANTam-	get into line (intr.)	-TANTik-	put into line by force (tr.)

We also find cases wherein (K) is added to (S), with the
same effect:

-KÚPam-	bec. prone	-KÚPamik-	turn (sy) over on front
-KATam-	bec. feared, awesome	-KATamik-	make awesome, dignify
-CINDam-	bec. respected, venerable	-CINDamik-	make respected

And note that -CINDik- itself means 'respect, esteem' and
is not 'causative to -CINDam-' (MGVL).

  There are many cases of polysyllabic radicals having
an 'extension' of this shape (and taking an object), but
for which no simple radical exists (see below, Polysyllabic
Radicals).

Examples:

| -INik- | give name to |
| -SÍNDik- | accompany (visitor out of house, to 'see off') |

  And one remarkable case in which (K) almost reverses
the effect of the simple radical(?):

| -SAP- | bec. thick (of bush); get covered with leaves and rubbish | -SAPik- | turn over soil to make seed bed |

2.5.1.6. <u>The Intensive -isyə/-esy- pr. -iʃ-/-eʃ- (I)</u>: intensifies
the action expressed by the simple radical. (No effect on
sentence structure). Is very common, and certainly still
'alive'.

    Normal rules of harmony are applicable.

<u>Examples</u>:

-SEK-	laugh	-SEKeʃ-	laugh a lot
-LÁS-	wound, strike with weapon	-LÁSiʃ- (-láʃiʃ-)	wound severely, etc.
-END-	travel	-ENDeʃ-	hurry
-LÓK-	rain	-LÓKeʃ-	rain hard
-PÚ-	die	-PÚiʃ-	die in large numbers (-fwiiʃ-)
-KÁM-	squeeze	-KÁMiʃ-	squeeze thoroughly
-CIND-	dance	-CINDiʃ-	dance well

2.5.1.7. <u>The Causative -isy-/-esy- pr. -iʃ-/-eʃ- (C)</u>: sometimes
similar in meaning to (Y), but more often having the force
of 'cause (someone) to get something done'. Nothing like as
common (in Bemba) as many observers have supposed.[1] (Previous
research has been somewhat confused by a universal failure
to isolate and identify the 'causative passive' -iiʃ-/-eeʃ-
(CP), and to assume that radicals in fact taking (CP) were
taking (C).) Radicals with this extension can take an extra
object.

    Normal rules of vowel harmony are applicable.

<u>Examples</u>:

-SEK-	laugh	-SEKeʃ-	cause to laugh
-CÍT-	do	-CÍTiʃ-	cause to get (sg) done 'worked'
-BÓMB-	work	-BÓMBeʃ-	cause to get (work) 'worked'
-LÉMB-	write	-LÉMBeʃ-	cause to get (sg) written

---

[1] eg. 75% of Guthrie's examples in MGVL do not really exist.

There are one or two interesting cases of special
changes in meaning.

Examples:

-SIT-	buy	-SITi∫-	sell (cause to buy!)
-LU-	fight (dual)	-LUi∫-	fight (tr)(not quite causative to -LU- !)
-KÓP-	borrow	-KÓPe∫-	lend (money)

These are of course comparable with the examples quoted
under (Y) above. ((p. 51))

In this connection it is interesting to note that

-SISy-   cause (sy) to buy (sg), or sell (sg) to (sy)

will take two objects, whereas -SITi∫-   sell (sg) will not.

2.5.1.8.   The Causative-Stative (?Causative-Passive) -ii∫-/-ee∫-
(CS) (CP).

This gives the force of 'cause (sy)/(sg) to be ...ed'.

Normal rules of vowel harmony are applicable.

Examples:

-PAT-	hate	-PATii∫-	cause (sy) to be hated[1]
-LO-	bewitch	-LOWee∫-	cause (sy) to be bewitched
-KAK-	tie	-KAKii∫-	cause (sy) to be arrested
-LÓK-	rain	-LÓKee∫-	cause (sy) to be rained on
-LÉMB-	write	-LÉMBee∫-	cause (sg) to be written down
-SEND-	carry	-SENDee∫-	cause (sg) to be carried

There seem to be some cases in which this (long-
vowelled) extension is used instead of -i∫-/-e∫- but with
the same meaning as -i∫-/-e∫- would have had (-i∫-/-e∫- is
not possible in these cases):-

-POK-	receive, get	-POKee∫-	cause (sy) to receive
-KOT-	bec.old	-KOTee∫-	make (sy)/(sg) look old
-FÍN-	bec.heavy	-FÍNii∫-	make (sy) fierce/(sg) heavy

---

[1]Instead of these, MGVL has eg. '-PATisi- (ie. -PATi∫-) cause
to hate' etc.   In most cases, no such form exists.

2.5.1.9. <u>The Stative -am-</u> (S): indicates that the subject of the verb is in a given position, or in many cases, posture or material bodily state: when added to an identifiable simple radical, it indicates the occurrence of the action of the simple radical, but owing to <u>no</u> agent. No object possible.

<u>Examples:</u>

-PET-	bend (tr.)	-PETam-	get bent (by or of itself)
-PÓT-	twist (tr.)	-PÓTam-	get twisted (by or of itself)
-INam-	bend over, stoop		
-TANTam-	get into line		
-LUNGam-	bec. straight, right		
-SENDam-	bec. leaning; bec. lying; bec. asleep		
-CINDam-	bec. respected ('respectable' in the old sense)		
-FÚKam-	bec. kneeling		
-SÉNam-	bec. supine (see also (U))		
-KÚPam-	bec. prone (see also (K))		
-PÍNDam-	bec. crossed (as of sticks)		
-MÍNam-	bec. stiffly bent (as of person)		

Some apparently with this extension may take an object, and are then perhaps better regarded as polysyllabic radicals (q.v.)?

-ASam-	gape (no obj.) but also snap at (of dog) sg/sy
-PÁLam-	approach (no obj.) but also be familiar with sg/sy

2.5.1.10. <u>The Contactive -at-</u> (T): implies touch, contact or grip: bodily movement or sensation. Simple radicals mostly unknown in Bemba.

<u>Examples:</u>

-FÚMBat-	clutch, grasp; clench fist (ícifúmbo = bundle, sheaf)
-LÁMBat-	skirt, pass along úlulámba (side of river)
(-LÁMB-	pass by at a distance; avoid)

-KÁMBət-   (rare) hold in hand, grasp[1]

-KÚst-   obtain, come to possess[2]

-ÍKət-   grasp, seize

-FYÁMBət-   clutch, seize

-KÚMBət-   embrace   (-KÚMB- carry in arms)

-FÚKət-   catch (like cat or lion) (∅ fukéta!)

-FÚTət-   turn one's back

-PÁKət-   visit (chief, or other great personage)

-TAPət-   smart (as raw skin)

    (Note number of H-radicals)

    There is at least one case of -ət- being used in what might be a different way – and here there is an identifiable simple radical:

-LÍ-   eat   -LYÁlyət-   eat indiscriminately, like a glutton (WFD, not own research)

Even here, the real meaning may perhaps involve 'smacking of lips, champing'. (cf. also the 'doubled radicals' of 2.5.2.)

2.5.1.11. The Reciprocal -an- (R): implies that the action of the simple radical is performed mutually or reciprocally.

-MÓN-   (come to) see   -MÓNan-   (come to) see each other

-UM-   hit   -UMan-   hit each other

-KUUT-   shout, call out   -KUUTan-   call each other (esp. invite each other to a drink)[3]

There are some cases of unpredictable changes of meanings:

-LÍ-   eat   -LÍan-   meet

-CÍL-   surpass   -CÍLan-   bec. different from each other

-CÍMB-   surrender   -CÍMBan-   part, after indecisive battle

---

[1] -KÁMB- bec. 'tacky', or part-dry; -KÁMBətil- stick to, adhere, bec. adhesive;

    -KÁMBa(n)tan- coagulate, stick together

[2] cf. -KÚUL- extract, -KÚIK- insert, and -KÚUK- move house.

[3] Note -KUUTəən- foregather, which may account for MGVL "-KUUTan- meet in council".

There are some cases of polysyllabic or polymoral
radicals with this extension and no identifiable simple
radical, but in which the reciprocal meaning is still
detectable:

-AKan-　　　divide up between selves

-KÚMan-　　meet (? -KÚM- reach to, arrive at)

-PÍan-　　　inherit throne; succeed (to) (-pyéan-)

-PAMBan-　　bec.equally matched (of fighters)

(-PAMB- exists, but normally means 'tie' or 'trip up')
(See under 'Polysyllabic and Expanded Radicals' for
-KÁan- refuse, and -Pén- 'almost')

A word of warning: we should always watch out for
the form -r-a na-, where na- means 'with' or 'by'. Thus
-END-a na- is quite simply 'travel with', and "-ENDan-(a)
'accompany on a journey'" (MGVL) does not exist. (Tenses
ending in eg. -e or -ile immediately reveal the truth, but
if all we observe is a form ending in -a, then there is of
course no phonetic distinction between -ENDa na- and -ENDana!)

2.5.1.12(a) <u>The Reversive (transitive) -ul-/-ol- (U)</u>: indicates the
(transitive) reversal or undoing of the action of the simple
radical.

Phonology is summarized in table:

Radical vowel	2nd consonant (non-nasal)	2nd consonant (nasal)
I E A U	-ul-	-un-
O	-ol-	-on-

2.5.1.12(b) <u>The Reversive-Stative -uk-/-ok- (V)</u>: indicates the
(intransitive) occurrence of the reversal or undoing,
resulting in a <u>state</u>.
　　　　　　　　　　(Radical vowel -o- requires -ok-)
Examples:

-KAK- tie　　　-KAKul- untie　　　-KAKuk- come undone

-KOB- hook　　-KOBol- unhook　　-KOBok- come unhooked

Meanings are not always quite so clearly related, however.

cf.

-ÍM-	stand up	(-ÍMy-	set up)
-ÍMun-	uproot (tr)(of tree)	-ÍMuk-	get uprooted
-SÚULuk-	glower, look askance at (cf.-SÚUL- despise, scorn)		

In certain cases, it is simplest to think of (U) standing
in the same relation to (V) as (Y) does to a simple radical.
Note:

-ISal-	shut (tr)	-ISul-	open (tr)	-ISuk-	come open
(Adding (N))-ISalik-	get shut	-ISulik-	get opened	-ISulik-	bec. openable
-ÍBil-	dive (intr)	-ÍBul-	take out of water (tr)	-ÍBuk-	come up out of water; surface (intr)

There are some cases of radicals with either (U) or
(V) and related simple radicals, but no truly reversive
idea:

-LÓOT-	dream	-LÓOTol-	know by instinct, have a presentiment, a dream-warning		
-IMB-	dig	-IMBul-	erode	-IMBuk-	bec. worn away (as by rain)
-MYÁNG-	lick	-MYÁNGul-	lick lips		n.e.
-SUND-	urinate	-SUNDul-	over-dilute	-SUNDik-	bec. over-diluted
-UB-	peel (tr)	-UBul-	skin (tr)	-UBuk-	get skinned

cf. also:-

-ÁNG-   dance, jump (lion dance)

-ÁNGaʃ-   divert, cause to play, amuse

-ÁNGal-   play   -ÁNGuk-   bec.light, easy

-SÉNam-   bec.supine   -SÉNamun-   turn (sy) over on his back

Many cases exist of radicals with either (U) or (V) and
no reversive idea, and no identifiable simple radical
either:

-PÚPuk-   fly about

-PÚTul-   cut in two: decide, judge (a case)

-PÚTuk-   get cut; get decided

-SONGol-   shappen to point

-ISul-   bec. full (cf. -ISuʃ- fill (tr.))

-ÁMPul-   crawl

-BUTuk-   run

-NAɲun-   creep (of scalp)

-TÓMon-   click (as in Xhosa, etc.)

-SÚNGul-   cure of snake-bite (no simple verb radical, but
                 cf. úbusúngú (14) venom)

-SÁNTuk-   have high-pitched voice, sing falsetto; also
            bec. hale; have good taste

-SÓNTok-   hop

-PEEKul-   twitch nostrils

-íLÓPol-   fall flat on stomahh (cf. -IÓPaul- hurl to ground
            repeatedly, thrash. -LOPam- crumple to the ground,
            collapse; and -LÓPek- put carelessly on the ground.)

-íLÁPul-   fall on back or side

(See under Polysyllabic Radicals)

-INuk-   straighten (oneself up): "knock off" (work) has

a curious little family:-

-INuk-   is (V) to -INam- bend down, and

-INun-   (U) make (sg) straighten up, is like the causative

of -INuk- : but -INun- make sy stop work, is causative to

-INuk-   "knock off"/go home.

cf. KAMBA in which

-INuk-   "knock off"/go home from work (and NOT straighten up)

-INam-   stoop. Are these really two CB roots?

And one extraordinary coincidence: -PÍT- (pass) and -PITul-
(call for in passing) must surely be unrelated, since they
have different radical tones.

There are one or two cases of (U) and (V) with a
reversive idea, but no 'positive' to correspond to:

-SOLol-   take charcoal out of fire

-NÚKul-   pull up (grass)

-FÚKul-   scrape out earth (with hands)(cf. -FÚKat- ?)

-LONDol-   get back sg. (borrowed or looked after by sy else)

-TEEKul-   dig up ulúteekúte (a kind of may-bug) from under
           a kalóslulé bush

2.5.1.12(c) The Reversive-Causative -uʃ-/-oʃ- (W): I suppose this
is really (Y) to either (U) or (V), by normal phonology.
With a straightforward causative meaning, it seems to be
very rare, and rarer still with related simple radical.
We have eg.

-ÁNG-   dance lion dance   -ÁNGuk- bec.light, -ÁNGuʃ- lighten
                                 easy

-BUUT-   bec.white, light
           coloured   -BUUTuʃ- make white,
                                          light-coloured

But with related radicals of the type -PÚTul- cut, (where
there is no simple radical -PÚT-) we find it turning up
somewhat more often, sometimes with genuine causative
meaning, and sometimes not:

-PAASuk-   leave path[1]   -PAASuʃ- cause to leave path

-PÚTul-   cut   -PÚTuʃ- cut (2 obj) eg. a man/pride

-PAATuk-   deviate, of   -PAATuʃ- run off new furrow, path
           path itself

-PAATul-   divide (tr)

-SANGuk- become, change (into) -SANGuʃ- change sy/sg

-SANGul- change sy/sg (into)

2.5.1.13(a) The Repetitive-Reversive and (b) Repetitive-Reversive-Stative
-ulul-/-olol- (UU); -uluk-/-olok- (UV): these may have mean-
ings similar to those of U and V: but they may also carry the
force of doing 'over again', re-doing the action of the simple
radical. Vowel and consonant harmonies as in (U) and (V).

---

[1] Note that -PAASul- means 'break (branches etc.): eat chicken
                                                            bones'

Examples:

-BIL-	sew	-BILulul-	unsew	-BILuluk-	come unstitched
-NYÚNG-	twist	-NYÓNGolol-	untwist[1]	-NYÓNGolok-	come untwisted
-TAND-	sow	-TANDulul-	re-sow	-TANDuluk-	get re-sown
-ÓND-	bec. thin			-ÓNDolok-	bec. emaciated, over a long period

Once again, we find cases of (UU) and (UV) with no
identifiable simple radical:

-OLolol-	straighten	-OLolok-	bec. straight
-LOBolol-	harvest	-LOBolok-	get harvested
-TANunun-	stretch	-TANunuk-	get stretched
		-SONKolok-	settle, burn down (of fire)
	cf. -SONKeleʃ-	add wood (to fire)
		-SOKolok-	appear, 'pop up' (without warning - ?cf.-SOK- warn)
		-BONGolok-	fall to pieces (of house, bedstead, etc.)

And there are cases of simple radicals having the same
meaning as the extended radical:

-NYUNS- stretch -NYUNSulul- stretch -NYUNSuluk- get stretched

(c) **Repetitive-Reversive Causative:** -uluʃ-/-oloʃ-
Mutatis mutandis, much the same remarks apply to this as
to -uʃ-/-oʃ-.

2.5.1.14. **The Completive (or Repetitive) -ilil-/-elel- (AA):** (Doke's
Perfective) indicates completion of the action of the simple
radical; it may also indicate the constant or extensive
repetition of the action (unlike (UU) and (UV) which
indicate <u>one</u> repetition.)[2]

---

[1]Note that -NYÓNGol- means 'pick up umúsaalú (vegetable leaves)'
<u>not</u> 'untwist' (MGVL)

[2]But it would seem that this extension rarely bears the same
relationship to (A) as (U) does to (UU). Even cases that were
thought by Guthrie to bear this relationship prove to have
other meanings:
-ENDelel- go towards steadily and without noise (not just go
towards)
-KONKelel- follow persistently; follow about; follow closely
(not just follow to accompany)

Vowel and Consonant Harmony as in (A).

Examples:

-PÓL-	get better	-PÓLelel-	get completely cured
-PÍT-	pass	-PÍTilil-	pass by without stopping
-KÁsn-	refuse	-KÁsninin-	refuse absolutely
-FUUT-	rub out	-FUUTilil-	keep rubbing out

There are cases wherein (AA) does not have quite the effect
expected, eg.

-LÚsl-	bec. ill	-LÚslilil-	bec. ailing, sickly
-FIN-	bec. heavy	-FINinin-	bec. heavy on one side, unbalanced
-FÍP-	suck	-FÍPilil-	suck sweet coating off sg.
-FÍIKsn-	bec. in close contact	-FÍIKilil-	chock (pot, motor-car, aeroplane, table)

There are naturally cases where this extension really
consists of an Applicative to a radical with second
syllable -il-/-el-:

-ÍNGil-	enter	-ÍNGilil-	enter for a purpose
-CÉNjel-	bec. clever	-CÉNjelel-	bec. (too) clever for

Also, cases where an (AA) shape seems to carry the
meaning of two (A)'s rather than the repetitive or completive
idea:

-LIM-	hoe, dig	-LIMinin-	dig round (not dig thoroughly, etc.)
-FUNG-	close, shut, lock	-FUNGilil-	lock in (not lock securely, etc.)

Finally, there are several radicals that acquire almost
the opposite meaning to the main stream:

-SUNK-	push	-SUNKilil-	push a little at a time
-PYÁNG-	sweep	-PYÁNGilil-	sweep a little at a time/ each day

and even:

-LÓ-.	bec. sweet	-LÓelel-	bec. a little sweet (not very sweet!)

-CV- and -V- radicals have (AAA) instead of (AA):

-PÚ-	end	-PÚ1ı1ı1-	bec. completely finished
-FÚ-	die	-FÚ1ı1ı1-	die utterly
-SÍ-	leave	-SÍ1ı1ı1-	abandon
-I-	go	-I1ı1ı1-	go for good

(also true of -CV- radicals + (Y): (Y) in junction with
-CV- radical is indistinguishable from (C) in shape, so
that -PÚ- (come to an end (intr.)) has -Ⓟẅii∫- (finish (tr.)).

ℓ·c

If we now take the (AA) form of this, we find -Ⓟẅii∫i∫i∫-

ℓ·c.

(ie. (AAA)) finish off sg. completely.

Examples:

-TÚ-	bec. sharp		-TÚi∫i∫i∫-	sharpen thoroughly (-twíi∫i∫i∫-)
-NÓ-	drink		-NÓesese∫-	make completely drunk (-nwéesese∫-)
		alt.	-NÓensese∫-	cf. -NÓ<u>en</u>- (√-NÓel-)
		and	-NÓe<u>ne</u>	(√-NÓele).

2.5.1.15 The 'Frequentatives' or Extensives': -sul- (FU),(UF),
-suk- (FV),(VF); -sil- (FA), -sik- (FN,(FK): and these
with (Y), or with (I):

These have the common idea of inadequate, disorderly,
indiscriminate or scrappy repetition of the action of the
simple radical: or the frequent repetition of the reversive
of the simple action: or the frequent repetition of the
simple action.

-sul- is normally transitive;

-suk- is stative;

-sik- may stand in place of -suk-, as the stative corres-
ponding to a transitive -sul- verb, or it may itself be
transitive.

-sil- is relatively rare, and its ambience difficult to fix;

-su∫- usually seems to mean the same as -sul-, but -sul- is
more common;

-si∫- is naturally rarer still.

Examples:

-LÁS-	wound	-LÁSaul-	wound in many places	-LÁSauk-	bec. wounded in many places
		(cf.-LÁSawii∫-	intensive of above)		
-LIM-	dig	-LIMaul-	dig aimlessly, all over the place	-LIMauk-	bec. dug this way
-FIMB-	thatch	-FIMBaul-	de-thatch	-FIMBauk-	bec. de-thatched
-ON-	destroy ruin	-ONaul-	destroy, spoil	-ONaik-	bec. spoilt, destroyed
-TÁP-	draw (water)	-TÁPaul-	draw water many times	-	
-TOB-	smash	-TOBaul-	smash to (many) bits/(many times)	-TOBaik-	bec. smashed (this way)
-SIN-	pinch, scratch	-SINaul-	pinch, scratch all over		

Three different sorts of -aik- :

-BÉEP-	deceive (tr)	-BÉEPaik- (FK)	deceive (one person) often	
-TÚMP-	bec. stupid	-TÚMPaik- (FK)	call sy stupid often	
-LAL-	crack (tr.)	-LALaul- (	crack (tr.) badly, crack to pieces	
		-LALaik- (FN)	get broken into many pieces	
		-LALauk-	get badly cracked	

With radicals already ending in -ul- etc. :

-LEPul-/-uk-	tear get torn	-LEPaul-	tear to bits	-LEPauk-	get torn to bits
-PÚTul-/-uk-	cut/get cut	-PÚTaul-⎫ -PÚTau∫-⎬	cut up (anyhow); slash about	-PÚTauk-	get cut up (anyhow); get slashed about

In some cases one or other extension will have a special

meaning:

-TUNT-	heap up	-TUNTaul-	'unheap a lot'	-TUNTauk-	carry many times from heap

Some with slightly changed meanings:

-EB-	tell	-EBaul-	tell off; reprimand strongly

Some perhaps on their own:

-FUND- no related   -FUNDsul- stir up mud -FUNDsuk- get muddy
          meanings   in water   (of water)

-SAB-   no related   -SABsul-   splash water -SABsuk-   splash
      meanings   about   about (of watr,

                 -SABsil-   talk in sleep

-SION- grind up - -SIONsul- screw up tight
       fine   (or grind up fine)

And in some cases there seems to be no connection:

-BIL-   sew   -BILsul-   turn eyes   -BILsuk- boil (intr.)
                       upward, roll   *bilíbilíbilí*
                       eyes *

                                         (-BILsuʃ-   boil (tr.))

*Note also here: -BILul- turn eyes upward, as in death

2.5.1.16.   There is a very limited group of verb-radicals and
extended radicals with the element -ip-/-ep- . They are
all associated with adjectival radicals, and all have the
general meaning of 'become X' where 'X' is the meaning of
the adjectival stem.[1]

-BIIP- (-bí bad) bec.bad   -KÁLip- (-kálí fierce) bec.angry,
                                                     fierce, hurt

-CÉEP- (-cé small) bec.   -ÍPip- (-ípí short) bec. short
               small, few

-LEEP- (*-de long, far) bec.long, far

2.5.1.17.   Then we have two 'extensions' which one cannot
allocate any particular meaning, although one occasionally
may have a fleeting intuition of something 'in common'.

      There is, for example, a certain 'reciprocity' or
'interactivity' plus 'frequency' idea about some of the
following (which might well be -asn- (FR) cf. -gul- ,

---

[1] Which came first? We cannot really say, of course: but
the (static) nominal idea seems to have a certain
epistomological priority over the (dynamic) verbal idea.

-ṣuk-, -ṣik-, ṣil-), and identifiable simple radicals
are present:-

-KOBaan-	bec.entangled	(-KOB-	hook)
-NYÓNGaan-	bec.(badly) twisted up, warped	(-NYÓNG-	twist)
-PETaan-	bec.bent in several places	(-PET-	bend)
-PÓTaan-	get wrung	(-PÓT-	twist)
-LINGaan-	bec.same size, equivalent	(-LING-	bec.fitting, suitable)
-LONGaan-	assemble (int.) (of people)	(-LONG-	pack (?))
-KULaan-	get dragged along	(-KUL-	drag)

But also:

-SAAKaan-	bec.mixed	(no related -SAAK-)
-KUMBaan-	arrange dress like a toga	(no related -KUMB-)
-SEEBaan-	bec.disgraced	(no related -SEEB-)

which appear to be polysyllabic radicals in their own right.

There is also some link between:

-BILinkany-	sew together by mistake	(-BIL-	sew)
-KOBenkan-	get entangled	(-KOB-	hook)
-KÓNDenkan-	run together, amalgamate (well), bec.pliable	(-KÓND-	bec.flexible, mixable,kneadable)
-TÓBenkan-	get mixed	(-TÓBek-	make mixture)
-TÚLinkan-	get pierced through and through	(-TÚL-	pierce)

They all have the idea of two or more objects coming
together (at least).

And even:

-PÁATulukan-	bec.separated, go off in different directions	(-PÁATul-	separate, thin out plants, cattle, etc.)
-PENDelekany-	count inaccurately	(-PEND-	count)

but not eg.

-PÁTuʃaany-　　　　invite each other to do sg, each refusing;
　　　　　　　　　　　"After you, Claude" ... "No, after you,Cecil"

　　　　　　　　　　　(? -PÁT-　get stuck, jammed)

2.5.1.18.　　　　Then there are a few cases of extensions belonging
to no identifiable series, but associating with clearly
identifiable simple (or other) radicals.　Such are:

-ÍTab-	answer a call	(-ÍT-	call)
-LOLeel-	wait for, expect	(-LOL- -LOLeʃ-	turn towards look at)
-PÉLeel-	get as far as	(-PÉL-	end)
-PUPiil-	flutter	(-PUPuk-	fly about)
-TININikiʃ-	press against	(-TIN-	squash)

2.5.1.19.　　Combined Extensions (with combined 'meanings').

　　　　　　There are many possible combinations of the exten-
sions we have already examined:　some of them are
sufficiently common to afford certain self-identification.
(P), (A) and (I) can be added to (N), (K) and (A), and
(I) to (R) quite simply, for example.　Some are not
quite so straightforward in the way they combine, however,
and it is these I propose to examine first:
(1)　-iʃ-/-eʃ- (ˇyA):　is the applicative of a causative:
a normal rule of consonant harmony operates, and just as
radicals ending in -P- and -B- give -Fy- in association
with the causative -y-, and those ending in -T-, -L- and
-K- all give -Sy- (pr.-ʃ-), so also the -il-/-el- of the
applicative gives -iʃ-/-eʃ- when associated with the
causative -y-.　But with all radicals having (Y), the
(YA) form preserves the modification resulting from the
addition of (Y) to the radical, as well as having the
Y-modified -il-/-el- (> -iʃ-/-eʃ-).　Thus:-

-LIL- cry, has Y-form -LISy- (pr.-liʃ-), play (musical instr.);
and YA-form -LISisy- (pr.-liʃiʃ-), play for sy.

-PÓL- get better, has Y-form -PÓSy- (pr.-póʃ-), greet (sy),
and YA-form -PÓSesy- (pr.-póseʃ-), greet (sy)
for (sy)

No change is made for cases of radicals ending in -NC- :

-LAND- talk, has Y-form -LANSy- (pr.-lanʃ-), propose (marriage)
and YA-form -LANSisy- (pr.-lanʃiʃ-), talk to (girl)
about marriage
on sy's behalf

Radicals simply adding -y- to make their Y form, merely add
-iʃ-/-eʃ- for the YA form:-

-SUUM- leak   -SUUMy- cause to drip   -SUUMiʃ- cause to drip
into (sg)

(2) -iʃ-/-eʃ- (AY) is the causative of radicals with
-il-/-el- as their last element. Sometimes there is a
clear applicative-type meaning:

-KOS- bec.hard, tough, strong -KOSeʃ- train sy for sy
-PON- fall   -PONeʃ- make (sg) fall for (sy)

Though it is possible that even these are (YA) from -KOSy-,
make hard, and -PONy-, cause to fall.   Indeed it remains
doubtful whether (AY) as a genuine causative of an applicative
can be proven.   There are however a number of radicals with
an element -il-/-el- that have causatives of an (AY) shape,
so we continue to label them (AY) for convenience.   The
phonology is normal: -il- + -y- > -iʃ-   etc.

Examples:

-CINCil-   hurry (self); dash about, bec.active
-CINCiʃ-   hurry (sy) (etc.)
-ÍNGil-   enter
-ÍNGiʃ-   cause (sy/sg) to enter
-ÍBil-   dive
-ÍBiʃ-   cause to sink

-CÉNJel- bec.clever

-CÉNJeʃ- bec.too clever for ('make clever' - next time!)

Note: here also many of the MGVL examples are either
non-existent, or (CP), or (I), or incorrectly related
to simple radicals instead of radicals with (A).

We should also note a similar type, (AAY), the
causative of radicals with -ilil- etc. as their last
elements, eg.

-SINTilil- lean (self)   -SINTiliʃ- lean (sg) against
           against

-SENGelel- move (self)   -SENGeleʃ- cause (sg,sy) to be moved
           along a bit   along a bit (not cause to
                                        move up a bit, MGVL)

(3) -iʃiʃ-/-eseʃ- (YAA) is the completive of the
causative (Y). Phonology is normal.

Examples:

-BOL- rot ⟶ ┌─BOSi (pr.-BOʃ-)   make rotten
             └─BOSeseʃ-   make completely rotten

             N.B. -BOIeleʃ- also exists

-LÁB- forget ⟶ ┌─LÁFi- (pr.-LÁFy-) make forget
                └─LÁFiʃiʃ-   make forget completely

-CV- and "-C-" radicals have (AYYY):

-PÚ- finish -PÚililil-   -PÚiʃiʃiʃ- finish completely

-FÚ- die   -FÚililil-   -FUiʃiʃiʃ- cause to die in
                                       great numbers

The form (AAY) also exists, although the (AA) here is
normally not a completive:

-SAMBilil- learn   -SAMBiliʃ- teach

-iliʃ-/-eleʃ- (AAI) is the 'intensive' of the completive
(AA) (or the applicative (A)). Phonology is normal.

Examples:

-FÍS- hide   -FÍSiliʃ- conceal (crime) stubbornly;
                             or, simply, hide.

-CÍNG-	screen(?); get in way of		-CÍNG111∫-	screen		
-SUNK-	push		-SUNK111∫-	push (sg) on its way		

(4) -any- (RY) is the causative of a reciprocal.

Examples:

-TÁNG-	outdo	-TÁNGan-	compete with each other	-TÁNGany-	cause (sy) to compete with each other
-CÍL-	surpass	-CÍLan-	bec.different from ea.other	-CÍLany-	contrast (2 things) OR cause to bec different etc.
-PÁL-	bec.like	-PÁLany	resemble each other	-PÁLany-	compare (2 things) OR cause to resemble etc.
-PÁSy-	bec.like			-PÁ∫any-	imitate (tr.)

(Many reciprocals will take (Y))

But some verbs must have (CRY) to give the same meaning

(and the (RY) form does not seem to exist):-

-Péel-	give	-Péelan-	give each other	-Péelesany-	cause (sy) to give each other
-EB-	tell	-EBan-	tell each other	-EBesany-	cause people to tell each other
-TÉMw-	love	-TÉMwan-	love each other	-TÉMwisany-	cause people to love each other

Some (RY) do not carry the expected meaning:-

-TÉEK-	look after, rule	-TÉEKan-	look after each other, rule each other	-TÉEKany-	bec.cool, calm & collected; 'take it easy'; (esp.-TÉEKany- úmutíme)
-TÉ-	prepare food for guest	-TÉan-	prepare food for each other	-TÉany-	prepare (things) for (sy)

(cf. -PÉKany- prepare (sg) in advance, for a purpose; get, keep ready)

-AKən-	divide (sg)	-AKəny-	divide (sg) for (sy)
-KÚMən- (nə)	meet (pl.subj) with (sy)	-KÚMəny-	meet (sy)
-PÁLən-	resemble each other	-PÁLəny-	compare A & B (OR cause A & B to resemble each other

There are cases of (RY) shape apparently unrelated in meaning, eg. -NYÓNGəny- raise hackles, bush tail, lash tail: this can also mean coil up, which is related to -NYÓNG- twist, screw.

(5) -iəny- (YR) is the reciprocal of a causative; it always appears in the shape (YRY), with a second -y- following the -ən-.

Examples:

-LÉK-	leave (off)	-LÉKən-	leave each other
-LEʃ-	forbid	-LÉʃəny-	forbid, prevent each other
-TAMFy-	drive off, chase	-TAMFyəny-	chase each other

There are cases of (YR) shape, not of this meaning, eg.
-FUNyəny- bec.cockled (cloth) cf. -FUNyənik- sew cockled
   (cf. -FUNYənyəfunyəny- bec. all wrinkled up)

(6) -uʃəny- ; -ufyəny- ; and -iʃəny- /-eʃəny- are also found as (YRY)'s of radicals having -ul-, -uk- ; -up- , -ub- ; -il-, -el- as second syllables. See under Poly-syllabic Radicals.

(7) Another major series is that associated with -w- (P). This includes:-
-ilw-/-elw- (AP), the passive of the Applicative. Phonology is normal, radicals ending in a nasal having -inw-/-enw- .

Examples:

-PÉL-	come to end	-PÉLw-	come to end (at place/ time/for sy)	-PÉLelw-	not to have ('to be/come to an end on')

-FÚ-	die	-FÚil-	die at/for	-FÚilw-	'bec.died on' (ie.have a death in the family)
-KÁan-	refuse, deny	-KÁANin-	exonerate	-KÁANinw-	get exonerated
		-FILw-	bec.unable	-FILilw-	bec.unable for a reason/at a place
		-TÉMw-	like	-TÉMenw-	like (sy) for (reason)

(8) -ililw-/-elelw- (AAP), the passive of the applicative (AA) or of the completive (AA). Phonology is normal.

Examples:

-SENDw-	bec.carried off	-SENDelelw-	get quite carried off
-TINw-	bec.squashed	-TINininw-	get completely squashed

The same applies to verbs that are not true passives:

-FÚLw-	bec.angry	-FÚLililw-	lose one's temper
-BÚLw-	come to lack	-BÚLililw-	want badly and not get
	(cf. -BÚL- be lacking)		

Usual rule for -CV- and -C- verbs:

-FÚilililw- 'get died on' completely

(9) -ikw-/-ekw- (NP): this form is used as the passive extension for one or two radicals ending in -w- and -y-: and those active radicals having extension (P) already:-

Examples:

-FWAAY-	want	-FWAAYikw-	be wanted
-FILw-	bec.baffled	-FILikw-	bec.unfeasible, 'undoable'

Two radicals already ending in -W- make their passives in ((W)NP):

-TÉMW-	like, love	-TÉMWekw-	be liked, loved
		(or -TÉMWikw- !)	
-ÚMFW-	hear	-ÚMFWikw-	be heard, obeyed

(10)   -íkilw-/-ekelw- (NAP), the passive of the applicative
of radicals having a second syllable in -ik-/-ek- :

Examples:

-CÍLikil-	shut (sy) in	-CÍLikilw-	get shut in
-SÍMikil-	tell	-SÍMikilw-	be told
-FÚULikil-	fell down (of dress) in front of (sy)	-FÚULikilw-	have one's dress fell off in front of sy

One more large series is that associated with -sm- (S).
This includes:

(11)   -smin- (SA), the applicative of a 'stative' (or
'sm-radical'):

-FÚKsmin-	kneel to (sy) OR on (sg)
-SENDamin-	lie down on (sg) OR for (reason/sg)
-KATsmin-	bec. awesome for (reason)
-PETsmin-	lean towards

(12)   -smik- (SK), the causative of a 'stative':

-FÚKsmik-	make (sy) kneel
-SENDamik-	make (sy) lie down
-KATsmik-	make (sy) awesome, fearful; dignify (sy)
-PETsmik-	make (sg/sy) lean, slant

(13)   -smun- (SU), the reversive of a (SK):

-FÚKsmun-	make (sy) get up from kneeling
-SENDamun-	make (sy) sit up in bed

(14)   -smuk- (SV), reversive of (SA):

-FÚKsmuk-	get up from kneeling
-SENDamuk-	sit up in bed

Finally, we have the following further combinations
with (A):

(15)   -uil-/-oel- (UA), applicative of a reversive:

-KOBoel-	unhook for (sy)	pr. -KOBweel-
-KAKuil-	untie for (sy)	pr. -KAKwiil-

(16) -ukil-/-okel- (VA), applicative of a reversive-stative:

-KOBokel-   come unhooked for (reason)

-KAKukil-   come untied for (reason)

(17) -ikil-/-ekel- (NA) or (KA), applicative of a

neutral (N) or causative (K):

-MÓNekel-   bec.visible for (etc.)

-KOBekel-   hang up for (etc.)

(18) -iki∫-/-eke∫- (NAC), causative of applicative of

neutral:

-LALiki∫-   break (sg) on, for etc. (sg,sy).

(I include this 'obvious' type because there is another

form identical in appearance, but intensive of neutral

or causative (or other verb ending in -ik-/-ek-).

(19) -iki∫-/-eke∫- (NI) or (KI) or (?I):

-LALiki∫-   bec.shattered

-UMiki∫-   cause to be very dry/hard

-IPiki∫-   cook a lot; over-cook

(20) -swiil- (FUA) and -sukil- (FVA):

-FUNDswil-   pr. -FUNDswiil-   make water muddy for ...

-FUNDsukil-   bec.muddy (or thick, of beer) for ...

(Note we can also have passives of these:

-swiilw- (FUAP) and -sukilw- (FVAP)]

(21) If semantically reasonable, almost any combination

of extensions will take on a final -i∫-/-e∫- (I), eg.

-FUNDsui∫-   pr. -FUNDswii∫- (FUI)

-FUND-s-u-il-i∫- > -FUNDsui∫i∫-   pr.-FUNDswii∫i∫- (FUAI).

(22) There are of course cases where we find combined

extensions carrying their 'proper' meanings, but

attached to a radical having no identified meaning on

its own.   Thus:

-KÁKaten-   get matted together in a solid lump (of grass
in thatch), clearly carries the ideas of both -at- and -an-
but there is no simple -KÁK- .

(23)   There are extensions identical in shape with
some of those discussed above, but which do not appear
to carry any 'series' meaning, but only serve to modify
the meaning of one or two radicals in a particular way:

-BUUT-	bec.light-coloured
-BUUTu∫-	make light-coloured
-BUUTuluk-	bec.lightish
-BUUTulu∫-	make lightish
-BUUTalukil-	bec.very light
-FIIT-	bec.dark-coloured
-FIITuluk-	bec.somewhat dark
-FIITulukil-	bec. a little dark
-FIITul-	darken sky (of clouds)

There are some simple radicals carrying special intensive
extensions of their own:

-LOL-	turn head towards, look at; mean
-LOLcke∫-	look carefully at, stare at
-LAND-	talk
-LANDiki∫-	report verbatim, speak plain unvarnished truth
-UMPW-	hear, understand
-UMPWiki∫-	pay close attention to

-MON- is somewhat strange in its behaviour:-

-MÓN-	get to see
-MÓNek-	bec.visible

BUT: -Kwéenaeke∫- ⎫
        -Mwéeneke∫- ⎬   scrutinize, look intently at

There are meaning deviants even from this special series:

-SAMB-	wash
-SAMBiki∫-	pour water on someone's hands
-BÉEP-	tell lies
-BÉEPeke∫-	put blame on ay falsely
-SUND-	urinate
-SUNDiki∫-	drizzle steadily
-LÁAl-	lie down to sleep
-LÁALiki∫-	watch where animals go to sleep

2.5.2. Doubled Radicals

Many radicals may be 'doubled-up', viz.

-LIM-	hoe, dig	-limalima
-FWAAY-	want, look for	-fwaayaafwaaya
-BÓMB-	work	-bómbáabómbá

This is of course a Common Bantu characteristic, and has been noted by many writers, for scores of languages. What is not clear from previous notation, however, is whether other languages have the same possibility as Bemba in making of the double-radical a more or a less 'solid' unit :-

(a) náa-bá-lim-a P $\longrightarrow$ náabálimá (06) they have hoed

(b) náa-bá-lim-a + P + lim-a P $\longrightarrow$ náabálimálimá (06) they have hoed enormously, (OR scrappily, badly)

(c) náa-bá-limalima P $\longrightarrow$ náabálimálímá (06) they have hoed by fits and starts

Similarly:-

(a) bá-a-lim-ile P $\longrightarrow$ báálíminé (11)

(b) bá-a-lim-ile + P + lim-ile P $\rightarrow$ báálíminélíminé (11)

(c) bá-a-lim-ilelimile P $\longrightarrow$ báálíminélíminé (11)

The examples under (b) above treat the first suffix as
a suffix, the second radical as a radical, and the second
suffix as a suffix, while those under (c) treat the first
suffix + second radical as an extension, for tonal
purposes.   The doubled radical of the (c) type is there-
fore strictly comparable with the extended or expanded
radical: but the (b) type is just like two separate
radicals stuck side-by-side. This formal difference is
associated with a difference in meaning: the rsrs type
intensifies, prolongs, multiplies the action of the
radical, whereas the res (where e = "er") type renders
it scrappy, desultory, sporadic, spread uselessly over
a long time.

N.B. When a radical of the -V- or -CV- shape is required
to express these same ideas, it triples.

-Y-	go	-yssyssy-
-BÁ-	be	-bésbésbé-

2.5.3. 'Expanded' and Polysyllabic radicals

There are also certain 'formatives' that behave in
the same way as extensions, but to which no definite
meaning can be ascribed: further, these formatives occur
only with certain specific radicals, to which no definite
separate meaning can be ascribed, and which never occur
without their formatives.[1]   These radicals may therefore
appear with shapes such as -CVvc- (one 'syllable'), -CVCvc-,
-CVCvnc-, -CVNCvnc-, and are not resolvable into simple
radical plus an extension or extensions having a clearly
identifiable modificatory effect on meaning. Often the
-CVC- or -CVNC- part of the polysyllable does not exist
at all as a separate simple radical: often though the
particular shape may exist, it obviously cannot be

[1]See Behaviour of the Suffix -ile.

semantically connected with the similar shape in the poly-
syllabic radical.   Sometimes, either by comparative work
or by internal semantic evidence, one may detect a meaning
association in the 'extensions', even though the simple
radical no longer exists in Bemba as a separate unit.
However, in every case the extra mora, or the last of the
extra syllables, behaves as if it <u>were</u> an extension when
in association with the suffix *-ile.

It is therefore reasonable to regard these 'radicals'
together with their 'formatives' as 'expanded' or poly-
syllabic radicals, the last mora of which behaves in the
same way as an extension.

2.5.3.1.   First, then, the 'expanded' radicals - these are
radicals consisting of -CV- plus a -vc- or -vn- 'formative':
this second element behaves as if it were an extension,
and although the -CV- root often has no counterpart as a
simple radical, it can be shown to be related to a proto-
Bantu root in every case.   Some of these radicals have
been mentioned already, since their second element was an
extension with a clearly identifiable idea (eg. -KÚst-
come to possess, where -at- is presumably a normal
contactive).   These radicals can be arranged in four sub-
groups, the biggest and most genuine of which consists of
the following, ending in -al- :-

(a) -BÍal-   plant (seeds)   (CB -bíad-)   (could just as easily be
                             ?-béad-   -BÉal-, then cf.ímbéu, seed
                                                           (9/10))

   -FÍal-   give birth to   (CB -bᶖed-)   (cf.úbufyáá∫i, úmúfyáá∫i)
                                          also Proto-Sudanic *ɓi-

   -FÚal-   put on; (come   (CB -d�ad-) (cf.-FÚUL- 'doff', -FÚIK-
            to)wear; 'don'.   clothe (sy))

   -TÚal-   carry, bear   (CB -túad-)   (cf.-TÚUL-, set down from
                                          head, -TÚIK-, put (load)on
                                          sy's head; úmu-tú-e (3) head)
                                                          (CB*-túe)

   -LÁal-   (come to) sleep, (CB -ɗÁAD-)(cf.*-LÁUT- pr. -LÓOT-, dream??)
            bec.lying down   ℓ·c.

-LÚsl- bec.ill   (CB -dúsd-)

-SÍsl- remain behind (CB -c̣ísd-) (cf.-SÍ-, leave behind)

One point of interest is that <u>all</u> these radicals are H.
Possibly chance: it is after all quite possible that the
same -sl- as in sub-group (a) above is found in:

(b)   -TALsl-   bec.cold, quiet   (CB -tadad-)

     -ISsl-   shut (tr.)   (CB -y̧j̧ad-)

     -IKsl-   bec.seated; settle   (CB -yi̧kad-) (cf.-IK- descend)
              ((come to) dwell

     -ÁNGsl-   play(about)(children (CB -yángad-)(cf. -ÁNG- dance
              or adults)   lion dance)

     -KÁBsl-   move about (constantly);
              wander, rove

But there is no possible common idea behind the -sl- in
either group, so by our definition it is not a true
'extension'.

The other sub-groups <u>could</u> all be regarded as genuine
-CV- radicals plus extensions already mentioned, but for
the fact that the simple -CV- radicals are either uncon-
firmed, or (as simple radicals) non-existent. We have:-

(c) -SÍsm- (-ʃÁsm-) bec.unlucky   (cf.-SÍUK- (-ʃÚUK-), become
                              lucky)(cf.also the rest of
   and   the -SÍ- complex?)

     -Usm-   bec.good (pleasant,
             acceptable)

These have already been mentioned under extension -sm- (S).
Finally we have:

(d) -KÚst-   come to possess (mentioned under (T)), and
    -KÁsn-   refuse, deny (which could well be a reciprocal)
  (-Pén-   'almost' is a dubious case, and to postulate
  -Món-   (for -MÓN- (see)) is convenient from the point
of view of this radical's behaviour with the *-ile suffix
and the -il-/-el- (A) extension (→ -mwéene, and -mwéen-
respectively), but it is perhaps too much for a present-day
comparativist to stomach!)

2.5.3.2.   There is a small group of radicals which are best classified as 'polysyllabic' (rather then 'extended') but which have the common general idea of 'vibration'.   They have no identifiable simple radicals, however.

-BULum-   growl, roar, purr

-TUTum-   tremble

-LULum-   roar

-TETem-   vibrate, quiver

-CECem-   shimmer, glitter (also ache, of teeth)

cf. also -

-PÉʃim-   glitter (water)   -BENGeʃim-   glitter, shimmer, glisten

2.5.3.3.   Then we come to the more nearly true polysyllabic radicals having no semantically identifiable simple radical and no semantically identifiable extensions.   Even these fall into types, however.   One of the most characteristic is $-CV_1CV_2NC- + (R)$ where $V_1 = V_2$

Examples:

-FÚLUNGan-   bec. muddled (may ~ -FÚL- ?)

-BÚLUNGan-   bec. round (like ball) (-BÚLUNG-   mould into ball)

-SÁLANGan-   scatter (from a meeting)

-PÓTONGan-   bec. distorted (-PÓTONG-   twist (tr) may ~ -FÓT- ?)

or CV_1NCV_2C:

-PEMPEMan-   bec. curved, of surface

or, with (A):

-TOBONKel-   dent (tr) (sink into, leaving mark after removal)

2.5.3.4.   Another is $-CV_1NCv_2nc-$ where $V_1 = V_2$

-PÁMPant-   grope, feel one's way along, about

-SÚNSunt-   trot, jog along (may ~ -SUNU- carry (sy) on shoulders, or -SUNT- limp?)

(cf. -SÚNSuntil- rock, jog (baby))

Some -CVNCvnc- types <u>are</u> traceable, however:

-KONT-   strike   -KÓNKont- strike, hammer

-NYANT-   tread   -NÝÁNyant- trample

-ŊWIINT- grunt, growl   -ŊWIIŊwiint- mutter, mumble

These are really more in the manner of the doubled radicals
of 2.5.2., as are types like -FWIIFwiiny-, purse mouth
(? ~ -FWIINY- make hissing sound).

2.5.3.5.   As we have already seen, there are many cases of
radicals having 'extensions', or better, final syllables
identical in shape with extensions P, Y, A, N/K, S, R, U,
V, AA, AN, NA, UU, UV at least, and yet having no special
<u>meaning</u> associable with the 'extensions', and very often
no traceable simple radical either. Examples have been
quoted in their appropriate sections: the class is very
large indeed. Typical are such cases as -KASik-, bec. red,
and -IPik-, cook (which could scarcely be 'broken down'
 in meaning and certainly have no conceivably related
-KAS- or -IP-). For UU and UV types, we may quote:

-LONDolol-   explain

-LANGuluk-/-uʃ- regret/make regret

-KUNKuluk-/-uʃ- roll into/make to roll; and for an NA type -

-CETekel-   trust, expect

2.5.3.6.   There are also many cases in which the final syllable
has the same shape as one of the extensions quoted above,
but has two or more syllables (or morae) preceding it, of
which the first cannot be related to any simple radical,
and the intermediate cannot be related to any ordinary
extension series. Here is a representative sample:-

-SÍBANTukil-   twinkle

-PÍLIBan-   bec. twisted over, curved

-TÓNŢONKany-   think, cogitate

-PÍLIBuk-/ul-	turn over (int./tr)	-SININKiʃ- (cf.?-SINin-	bec.convinced; convict,find guilty)
-PÚLUMuk-/uʃ-	bec./make vicious,evil	-SAKAMan-/ik-	worry (int./tr.)
-PÁAPAATal-/ik-	bec./make flat	-KALABan-/anik-	bec./make rough
-F(Y)ÉNENKeʃ-	jam (sg)(in between)	-IBUKiʃ-	remember (OR remind)[1]
-TÉLEMuk-/uʃ-	slip (int/tr) descend	-PÍMFINik-	turn down mouth(before starting to cry);also screw up eyes[2]
ꝑSOLOMok-/oʃ-	fall from thatch (of grass)		

2.5.3.7. Next we have a group in which the first syllable has no relatable meaning, and second or subsequent syllables belong to no meaning- or shape-series. Representative examples follow: there are naturally many other types:-

-BEEBeet-	scrutinize, examine closely	-SOKon-	tremble, wobble (eg.from weakness)
-BALABaat-	corruscate, reflect (sunlight on water)	-SALip-	deliver (eg.country from danger)
-BALáal-	bec.spotted	-IPay-	kill
-PAAPaat	beg, plead	-IPuʃ-	ask (question)
-PÚLuuk- ⎱	long for (esp. home)	-IMit-	bec.pregnant
-FÚULuk- ⎰		-ÍSib-	know (cf.-ÍSibiʃ- remind, warn)
-TEBet-	serve food	-ÍKut-	bec.replete
-TOOTooʃ-	whisper	-ÁSim-	lend
-BOMFun-	bec.puffy, soft, plump[3]	-KÚNGub-	sweep up (cf.-KUNGul- clear (grass) to expose soil?)

2.5.3.8. Another very characteristic set of radicals are of the shape $\underset{1}{CVC}\underset{2}{CVC}$ where $\underset{1}{CVC} \neq \underset{2}{CVC}$, but in which we detect no simple -CVC- meaning.

Examples:

-TABATab-	pick up things from ground (hastily)
-FÚKAFuk-	settle oneself down in sitting or squatting position

---

[1] cf.-IBUKil-(rare) bec.(suddenly) aware of (eg.pain)

[2] This may be linked back to -PÍMFy- cause to swell. The idea might be 'making a whole lot of little swellings, ie.wrinkles.'

[3] Might be ∼ -BOMFy- make wet, damp - but I doubt it.

-ŋUNYAŋUNy-   lash tail angrily

-FWIINYAFWIINy-   twitch (nostrils) and mouth like cat or dog sniffing.[1]

Here also the last more behaves as an extension in the presence of *-ile, but it seems obvious that we are not very far from "repeating the radical to achieve a 'repetitive' meaning".

2.5.3.9.   And lastly we may note that many radicals are directly related to exclamatory particles; the bulk of these form a chicken-and-egg problem for those who seek 'derivations': but for some we can be pretty sure that the exclamation came first, for what that's worth.

Examples:

-LOMPok- ⟶φlómpo   burst forth (of pus from boil, OR of sy. running from house)

-LÚNTuk- ⟶φlúntu   fall heavily

-BULUKut- ⟶φbúlukutu-búlukutu-búlukutu   gallop

-SAKuny- ⟶φsáka sáka sáka   rustle

-TÉSEMun- ⟶φtésu   sneeze

-TÍFul- ⟶φtífu (muntífu)   have prolonged hiccups

-TÍKul- ⟶φtíku

-TÉKul- ⟶φ?téku (muntékuntéku)   have hiccups
- not recorded. (I believe actually denied by informants!)

-BYOOL- ⟶φbybóòò (with creaky voice)   belch

2.5.3.10.   As a Parthian shot, I would like to cite a couple of fairly typical series, each derived from one simple radical, in which we can see only too well that our (basically non-Bantu) ideas on 'meaning' do not always fit as they should!

---

[1] But note: umúfwiinyé 3/4 anus (?rectum) and

    -FWIINY- make hissing sound

-FIMB-	cover with grass, cloth, mat: thatch
-FIMBw-	get covered
-FIMBul-	uncover (<u>someone</u>) (-FIMBili∫- cover (<u>someone</u>))
-iFIMBul-	uncover oneself
-FIMBulw-	get uncovered (by sómeone)
-FIMBulul-	remove thatch (or -FIMBaul- ?untidily)
-FIMBulŭk-	bec.unthatched (or -FIMBauk-)
-FIMBan-	cover <u>self</u> with blanket (-FIMBani∫any- cover <u>one another</u>
-FIMBanw-	get used as covering
-FIMBil-	conceal (an affair)
-FIMBi∫any-	help one another thatching (tr.)
-FIMBi∫-	thatch thickly
-CÍL-	surpass in abstract quality; exceed; go beyond
-CÍLan-	bec.different (eg.sizes)
-CÍLany-	cause to differ
-CÍ∫-	surpass in concrete possessions; beat sy in competition; cause sy to jump a class at school
-CÍ∫any-	compete with each other
-CÍLi∫-	-CÍL- completely
-CÍLil-	reach convergence before sy; take all goods of conquered, sack, despoil; jump a number in a series; supplant
-CÍLii∫-	cause sy to -CÍLil-
-CÍLu∫-	ferry sy; cause sy to cross over
-CÍLuk-	jump (over); step (across); bec.unplugged
-CÍLukan-	play leapfrog
-CÍLukuk-	bec.unstoppered
-CÍLauk-	júmp about; bec.fickle
-CÍLawiil-	succeed in getting ahead of sy
-CÍLilil-	oust
-CÍLul-	unstop a hole (cf.-CÍLukulul-)

-CÍLʙul-   unstop a lot of holes

-CÍLik-   stop a hole;   lock ʙy up;   encounter

-CÍLʙik- ?

-CÍLikilw-   get shut in

-CÍLiki∫-   catch red-handed

-CÍLiki∫iw- get caught red-handed

(-CÍLim-   impose silence, "shut ʙy up")

-CÍLimuk(il)-   jump up in surprise

(-CÍLimuki∫- int.of this)

-CÍLimun-   startle ʙy (cf.-CÍLimu∫-)

-CÍLimu∫ʙny- startle each other

-CÍLingʙny- obstruct;   drive (spear) through; interrupt(speaker)

and so on, and so on ...

2.6.1. <u>The Behaviour of the post-radical tense sign *-ile</u>

This sign appears in different guises, varying according to the shape of the radical to which it is attached. With simple (eg. -CVC-[1]) radicals, its behaviour may be neatly summarized thus:-

radical vowel	2nd cons. non-nasal	2nd cons. nasal
I A U	-ile	-ine
E O	-ele	-ene

The only exceptions to this rule are:

(1) -MÓN- (see), which behaves as if it were -Món- (then -Món- + *-ile gives -mwéene, normal rule, see below).

(2) -NYE ? (defecate): this is problematic. Thus -NI- (or -NY-) would give -nya with -a and -nye with -e correctly, but would give <u>-niile</u> with *-ile; while -NE- would give -nya with -a, but -<u>ne</u> with -e and -<u>neele</u> with *-ile. In fact this radical has -nya, -nye and -nyeele, which would suggest *-NYE- or *-NYA- (though CVCB has *-NE- and CBR has *-nį-).

(3) -NÓ- (drink): this is really 'irregular'. -NÓ- + *-ile 'should' give *-nwéele, but in fact we find -nwéene.

2.6.2. <u>The Behaviour of the *-ile suffix in the presence of extensions</u>

With all extensions, *-ile splits up into two parts. With extensions consisting of a single vowel, ie. -w- (P) and -y- (Y): call the extension -V-; then the suffix with extension appears as *-il-V-e.

2.6.2.1. Thus with -w- (P) we have, eg.

-PIMW- + -ile ⟶ -PIM-<u>il</u>-w-<u>e</u> ⟶ -PIMinwe

-TÉMw- + -ile ⟶ -TÉM-<u>il</u>-w-<u>e</u> ⟶ -TÉMenwe

---

[1] But see 'Radicals' for an exhaustive list of types.

-KULw- + -ile ⟶ -KUL-il-w-e ⟶ -KULilwe

-KÓLw- + -ile ⟶ -KÓL-il-w-e ⟶ -KÓLelwe

2.6.2.2. With -y- (Y) we have eg.

-FUMy- + -ile ⟶ -FUM-il-i-e ⟶ -FUMiʃeˡ

-LEMy- + -ile ⟶ -LEM-il-i-e ⟶ -LEMeʃe

-PUSy- + -ile ⟶ -PUS-il-i-e ⟶ -PUSIʃe (pr. -puʃiʃe)

-KÓSy- + -ile ⟶ -KÓS-il-i-e ⟶ -KÓSeʃe

(Note that -OC- burn, does <u>not</u> have (Y) - its past tense base is -OCeele (-OCiele).)

2.6.2.3.   With all extensions (ending) with the shape)VC- after radicals ending with any consonant, *-ile suffix with extension appears as *-ViCe. The -*l- is assimilated into the -C- of the extension. Thus we have:

-BÚT-uk- + -ile ⟶ -BÚT-u-il-k-e ⟶ -BÚTwiike

-TAP-st- + -ile ⟶ -TAP-s-il-t-e ⟶ -TAPeete

-PET-sm- + -ile ⟶ -PET-s-il-m-e ⟶ -PETeeme

-KÁL-ip- + -ile ⟶ -KÁL-i-il-p-e ⟶ -KÁLiipe

A possible historical formulation, fitting all the above cases, would be as follows:-

For an imaginary radical -PAL-

-PAL-	-PAL(Z)il(z)e	⟶ -PALile	
-PAL-w-	-PAL(Z)ilwe	⟶ -PALilwe	
-PAL-y-	-PAL(Z)ilye	⟶ -PASilye	⟶ -PAʃiʃe
-PAL-il-	-PALiille	⟶ -PALiile	⟶ -PALiile
-PAL-ik-	-PALiilke	⟶ -PALiike	⟶ -PALiike
-PAL-iʃ-	-PALiilʃe	⟶ -PALiiʃe	⟶ -PALiiʃe

(continued over)

[1] Normal phonology in Bemba has:-

-L- as final radical consonant, plus -y- (Y), give -Sy-

cf. -BOL- ,bec.rotten ⟶ -BOSy- cause to rot
    -LIL- cry ⟶ -LISy- cause to cry: beat (drum) etc.

The -l- of *-ile suffix behaves in the same way; it should be noted that the -l- + -i- > -ʃ- takes precedence over the -N- + -il- > -Nin- type junction: so that we do <u>not</u> get eg. -LEM-il-i-e ⟶ -LEMenye, but -LEM-il-i-e ⟶ -LEMeʃe.

-PAL-am-	-PALaiₗme	⟶	-PALaime	⟶	-PALeeme
-PAL-an-	-PALaiₗne	⟶	-PALaine	⟶	-PALeene
-PAL-at-	-PALaiₗte	⟶	-PALaite	⟶	-PALeete
-PAL-ul-	-PALuiₗle	⟶	-PALuile	⟶	-PALwiile
-PAL-uk-	-PALuiₗke	⟶	-PALuike	⟶	-PALwiike

We see that -w- and -y- are for this purpose regarded as falling into the extension-consonant <u>position</u>, but have not the complete assimilative power of true consonants. -w- can do nothing to the -*l-, and -y- can only turn it into -ʃ-.

In East and Central Bemba, the above formulation also holds good for many extensions and polysyllabic radicals ending with the shape -VNC- (where -N- stands for the homorganic nasal, and -C- for any consonant, or -y-). -NC- being treated as a single consonant. Thus:

| -PÁMP-ant- | -PÁMPaiₗnte | ⟶ | -PÁMPainte | ⟶ | -PÁMPeente[1] |
| -TÓNTONK-any- | -TÓNTONKaiₗnye | ⟶ | -TÓNTONKainye | ⟶ | -TÓNTONKeenye |

Some further comment can be made on one special set of polysyllabic radicals ending -VNC-.

(1) Of a random (WFD) sample of 68^2 polysyllabic radicals with their last syllable in -VNC- (<u>excluding those in</u> <u>-ny-</u> and -nsh-), 66 had high tone. The remaining two, -ŋWIŋWINS- and -ŋWIŋWINT-, both mean 'mutter' or 'mumble', and look very much like variants of one word. So we may say we got 66 highs out of 67, or 98.5%. It may be worth remarking that the low-toned exception itself has a low-toned meaning!

(2) Over three-quarters had meanings such as struggle, thrash about, rush about, stagger, wobble, gambol, strut, rummage, rattle, reverberate, hammer - ie. repetitive to-and-fro movement (or noise).

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[1] In <u>West</u> Bemba, this may also appear as -PÁMPantile.

[2] This represents about three-quarters of all the radicals of shapes such as -CVCVNC- / -CVCVCVNC- in WFD (excluding those ending in -ny- and -nsh)

(3) Tabulation of the behaviour of *-ile yields a pattern,
with one or two oddities. Thus with -A-, -O- or -U-
as 'last vowel', all examples given could have either
type of behaviour.

Examples:

-PÁLAMPANT-   reverberate; struggle (to get free)

-PÓLOMPONT-   rattle (intr.); bounce up and down (intr.)
                bec. rough, of road

-PÚLUMPUNT-   stagger, trip up (intr.); have palpitations;
                talk at random.

gave: -pálampeente / -pálampantile

               -pólompweente / -pólompontele

               -púlumpwiinte / -púlumpuntile

and:

-TÓLOBOND-   gambol

-TÚNTUMB-   carry heavy load

-BÚLUNG-   make sg. round (by rolling in hand)

gave: -tólobweende / -tólobondele

               -túntwiimbe / -túntumbile

               -búlwiinge / -búlungile

With -E-, all except the -NT-'s simply added -ele, but
the -NT-'s had both types.

Examples:

-SÉNSEMB-   wobble

-CÉLEBENS-   be anxious, on the alert, looking about

-SÉNSENG-   move about on eggs, of sitting bird

gave: -sénsembele

               -célebensele

               -sénsengele

whereas:

-TÉLENTENT-   shake, rock (intr.)

-CÉNCENT-   look at all over

-SÉNSENT-   carry without effort

gave: -télenteente / -télententele

                  -cénceente / -céncentele

                  -sénseente / -sénsentele

An apparent exception was -NYÉNYENT-, sparkle, which only tolerated -nyényentele.

With -I-, all -NT- examples simply added -ile, (including -ŊWIŊWINT-, while -ŊWIŊWINS- had both types of behaviour.)

There was insufficient 'depth' on other consonants with -I⁀ for me to make any useful comment.

One extraordinary thing: in this investigation, my informant insisted that -TABANT-, rush about, could give -tábeente / -tábentile _and_ -tábentele. This is the only time I have ever recorded the possibility of -ele after -a-.

(4) The -e form of -FYÓMFYONT-, suck marrow out of bone, suck at breast, was given as -fyómfywente, phonetically -fjo:ɱfɟ̈ẅe:nte (?-ɱf⟨ʲ⟩ẅwe-). The f in this cluster sounded as if the teeth were only very lightly involved -- sometimes → ɸ and the j̆ was very close, with tongue raised to alveolar ridge. A remarkable noise, yet somehow very much the 'right answer' to "what happens in Bemba speech when the 'structure' is -MFIOE- ?" /

Note: / In WFD, -mp- and -nk- are almost non-existent in last position, -ns- and -nd- equal at around 6%, -ng- 14%, -mb- nearly 19%, and -nt- about 55%. With the exception of -kunt-, the combination -C̥Vnt- does not occur⁄ [as last syllable] whereas -NC̥Vnt- accounts for well over half the -nt- cases. -b- is found with -nt-, -nd- and -ns- but not with -mb-. -l- is found with (?)-mp-, -mb-, -nt-, -ns-, -ng- but not with -nd-. _In general_, the pattern -CVNC- for the last radical syllable is about as common as -NCVNC-, but within

the former, four out of five of the first consonants are
voiced, while in -NCVNC- the first consonant can only be
unvoiced 'by definition'.   It would be of the greatest
interest to collect more radicals of shapes such as
-CVCVNC-, -CVCVCNC-, -CVNCVNC-, -CVCVNCVNC- in this and
other Bantu languag_es - they seem to be very finicky in
their interrelations of consonants, and of consonants to
vowels.

    WFD recording of *-ile formations shows a marked
tendency to ignore the 'intrusive' type in favour of simple
addition of the suffix.   This may be partly because a lot
of their collecting was done in the west, where the
intrusive form is less frequent.

2.6.2.4. (a) With 'live' extensions of the shape -VC- after
radicals ending with any vowel, the suffix *-ile with
extension appears as $-V_1C_1V_2iC_2e$ (where $V_1 = V_2$ and $C_1 = C_2$)[1]
Thus we have:

		from -LÍ- eat		
-LÍil-	-LÍiliille	→	-LÍiliile	eat well
-LÍik-	-LÍikiilke	→	-LÍikiike	(-able)
-LÍisi-	-LÍiʃiilʃe	→	-LÍiʃiiʃe	caus.

		from -NÓ- drink		
-NÓesi-	-NÓeseelye	→	-NÓeseeʃe	caus.
-NÓen-	-NÓenceline	→	-NÓeneene	appl.

		from -PÍ- get ripe, burn		
-PÍisi-	·PÍisiilye	→	-PÍiʃiiʃe	caus./int.

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[1]This is strictly in line with a rule already noted for -VC-
(AA and Y type) extensions after -CV- radicals. See 2.5.1.4.
Thus: -PÚisi- + intensive -isy- gives -PÚiʃiʃiʃ- (not -PÚiʃiʃ-)
    -Y- + completive -ilil- gives -Iililil- (not -Iilil-) etc.
Here, instead we have:
    -PÚTul- + -il- + -ile gives -PÚTuiliille (not -PÚTuiile)
    -PÚTul- + -is- + -ile gives -PÚTuisyisye (not -PÚTuiisye)

<pre>
                      from -SÍ- leave
    -SÍil-   -SÍliíille ⟶ -∫íliíille   appl.

                      from -FÚ- die
    -FÚil-   -FÚilíille ⟶ -FWilíille   appl.

                      from -TÚ- pound
    -TÚ1k-   -TÚikiílke ⟶ -TWíikiíke   stat.
</pre>

But the 'causatives' of -LU-, fight (dual) and -FÚ-,
finish (neut.), -LUI∫-, fight (tr.) and -FÚI∫-, finish (tr.)
do not behave as if they had -VCV- extensions; they have
past tense bases -lwii∫i∫e and -pwii∫i∫e, as if they were
-LUISY- and -PÚISY- respectively (and not -LUisy- and -FÚisy-).
(In this, they are as it were the opposite of -LÁal- and
-KÁan- which behave as extended *-LÁ- and *-KÁ-, although
*-DÁAD- is a perfectly good starred form!)

2.6.2.4. (b) This same rule applies to radicals with compound
extensions of the shape -VVC-. Thus we have :

<pre>
    -PÚTul- + -il-   ⟶ -PÚTuil-   pr. -PÚTwiil-
    -PÚTuil- + -ile ⟶ -PÚTuiliíle   pr. -PÚTwiliíile
    -PÚTul- + -isy- ⟶ -PÚTuisy-   pr2 -PÚTwii∫-
    -PÚTuisy- + -ile ⟶ -PÚTuisii∫e   pr. -PÚTwii∫ii∫e
</pre>

2.6.2.4. (c) Where a polymoral radical ends in a 'formative' (ie.
not a true extension) of the shape -VVC-, the suffix *-ile
with the formative appears as -vvIcE (just as if it were
an extension of shape -VC- in fact). Thus:

<pre>
    -TOOToo∫- ~ -TOOTooE∫E ;   pr. -TOOTwee∫e   whisper
</pre>

2.6.2.5.   With 'dead' extensions of shape -VC- after 'dead'
radicals ending with a vowel, the suffix *-ile with 'extension'
appears as -vIcE. Thus:

<pre>
    θTÚal- ~ -TÚaile   pr. -tweele
    -LÁal- ~ -LÁaile   pr. -leele
    -KÁan- ~ -KÁaine   pr. -keene
    -KÚat- ~ -KÚaite   pr. -kweete
</pre>

The behaviour with extended (or expanded, or polysyllabic)
radicals may therefore be summarized thus:-

| radical vowel | Extension -w- | | Extension -y- | All other extensions (of forms -vc-, -vcvc-, -vnc- etc.) |
	2nd consonant non-nasal	2nd consonant nasal	Any 2nd consonant	
I A U	-ILwE	-INwE	-ISiE	-vIcE;RAD-vcvIcE etc.
E O	-ELwE	-ENwE	-ESie	-vEcE; RAD-vcvEcE etc.

2.6.3.   Synoptic table of examples follows:

Radical	I A U	*-ile form
-CVC-	-PAT-	-PATILE
-CVN-	-TAN-	-TANINE
-CVVC-	-KUUL-	-KUULILE
-CV-	-PÚ-	-PÚILE (pr. -pwíilǝ)
-VC-	-UP-	-UPILE
-C-	no examples (but see ⟨-PÁ; -CÉ- and -TÁ- already cited at 2.4.5.above)	
-V-	-U-	-UILE (pr.-wiile)
-CVCw-	-MASw-	-MASILwE (pr. -maʃilwe)
-CVCvcw-	-PIMinw-	-PIMinINwE
-CVCvcvcw-	-PASililw-	-PASililILwE (pr. -paʃililílwe)
-CVNw-	-PIMw-	-PIMINwE
(-CVCi- =) -CVCy-	-LISy-	-LISISyE (pr. -liʃíʃe)
(-CVCvci- =) -CVCvcy	-SITisy-	-SITiIsyE (pr. -ʃitiíʃe)
(-CVCvcvci- =) -CVCvcvcy-	-SIPikisy-	-SIPikiIsyE (pr.-ʃipikiíʃe)
(-CVNi- =) -CVNy-	-FÚMy-	-FÚMISyE (pr.-fúmíʃe)
-Vvc-	-Usm-	-UsImE (pr.-weeme)
-CVcv-	-TÚsl-	-TÚsIlE (pr.-twéele)
-CVCvc-	-TAPst-	-TAPsItE (pr.-tapeote)
-CVCvcvc-	-PÚLumuk-	-PÚLumuIkE (pr.-púlumwitke)
-CVNCvnc-	-PÁMPsnt-	-PÁMPsIntE (pr.-pampeente)

The same patterns apply for radicals having radical vowels
E and O; only a representative sample is given:

-CVC-	-LEK-	-LEKELE
-CVN-	-LEM-	-LEMENE
-CVNw-	-TÉMw-	-TÉMENwE
-CVOvcw-	-TÉMenw-	-TÉMenENwE
-CVCvc-	-MÓKok-	-MÓKoEkE (pr.-mokweeke)
-(C)VOvcvc-	-OLolok-	-OLoloEkE (pr.-ololweeke)
-CVCy-	-KÓSy-	-KÓSESyE (pr.-koseʃe)
-CVOycy-	-PÓScsy-	-PÓScEsyE (pr.-pósecʃe)
-CVOvcvy-	-LEKelesy-	-LEKeleEsyE (pr.-lekeleeʃe)⟨

2.6.4.   <u>Tonal Behaviour of *-ile</u>

Tonally, we can only assume that *-ile is basically
-ile as in 22; it appears variously as -ilé (neg. C5/6),
-ílé in 11 and 12, and 05 (though for different reasons).
These variants seem to be the results of tonal 'imposition',
however;   and so are not exactly 'historically' structural,
though 'formally' they do behave as such - P, D, F_1, F_2
and R all have their effects on the rules of tonal
representation.   (See 3.1.4.(a) and (b), and 3.1.9., 3.2.3.
for examples and rules.)

2.7. Enclitics

2.7.1. -po, -ko, -mo.

Corresponding to the prefixes ápa-, úku-, úmu- and the
extra-prefixes ápa-, áku-, ámu- of Cl.16, 17, 18, there
are enclitics -po, -ko, -mo. These can occur as 'post-
final' elements of both nominals and verbals, always
immediately after the suffix. They may be _followed_ by
one or other of the other enclitics -FYE (merely) or
-NSI (what? which?). Since they never occur except in
this position, it seems reasonable to treat forms that
include them as 'single-word' forms.

Tonally, they are in a group apart from the rest
of the language, since they always carry a speech-tone
opposite (polar) to that of the syllable preceding them.
They are structurally _neither_ H _nor_ L.

Mostly, their effect on meanings is much what we
would expect from elements having a Cl.16/17/18 ambience.
-po suggests 'on, at exact position, time'. -ko, 'to,
at, general position, agency', and -mo, 'position in,
time in, direction . But -po also commonly has the
idea of 'from among'. and -ko is very often used after
imperatives or command-subjunctives purely and simply
as a 'softener' (perhaps rather as we say 'Hullo there'
rather than just 'hullo' ?) Occasionally, the _absence_
of -ko in a command produces a considerable difference -
for example:

nimpá-ko úmucélé   please give me some salt
BUT nimpá úmucélé   give me back my salt

Not all radicals will accept -po / -ko / -mo:
some are scarcely ever heard without them, some perhaps
never. In particular, -AFu- help, would be unthinkable
without -ko; presumably because the idea of helping _has_
to be 'softened' ! Occasionally an unexpected twist in

given to meanings by the addition of these so-called
'locative' enclitics: thus

-BÍIK-   put

-BÍIK-   -po   put on, but also 'continue'

Examples of more normal changes are:

nníine.po	let me get on (a bike)
ndééʃita-pó-fye kámo	I'm just going to buy one (of them)
búula-pó	take (some of it)
uléeya-cítá-ko-nʃi?	what are you going to do (there)?
ndééya-imba-kó kalundwé	I'm going to dig cassava (there)
...kukutéébela-kó...	to get (firewood) with
túlúnde-kó umwáálo	let's add a ridge-pole to it
ngasimá-ko íncinga	lend me a bike
iseéní múngafwe-kó	come and help me
ndectelá-ko ámeenʃi	bring me some water
¡.. úkwiingíla-mó	to enter (into it)
báasánga-mó ímboo	they found a buffalo in it (a trap)
ndéékuuma-mó	I'll lash into you (-UM- hit)
tuléébweelela-mó?	shall we go back (to the place from which we came)? (-BWEEL- return(here))

7.2.   -FYE.   This element may also be attached to both
nominals and verbals, and means 'only', 'just', 'merely',
'simply'.   It is likewise tonally polar to the syllable
preceding it.

2.7.3.   -NSI. Behaves like -FYE, and means 'what? which?'. It
has related non-enclitic forms (such as ínʃi, ɓenʃi,
cínʃi and nínʃi) but the enclitic may legitimately be
regarded as 'part of the word' because of its tonal
polarity.

     For semantic reasons, not all radicals will accept
-NSI.

3

* * * * * * * * * *

THE TENSES

3.1.   THE   TENSES: Morphophonological illustrations.

The best prefixes for illustration purposes are
n- (a low monophone, and also homorganic nasal),
é- (a high monophone),
tu- (low diphone), and
bé- (high diphone).

Each tense 'should' be tabulated with these four,
with a low and a high radical, at least for -CVC-,
-CVCvc- and -CVCvcvc- types, in both positive and
negative forms, for main, subjunctive, relative and
object relative type tone-patterns.   This would give
us 144 forms for each odd numbered tense in tables M
and P: but this exhaustive exposition would be
tedious and time-wasting.

I therefore propose to quote certain 'typical'
tenses.

In this section, meanings are not given.   Every
form quoted has a different meaning from every other;
and the radicals used are:

-LEK-	desist; allow
-LÁB-	forget
-KUL-	drag
-KÚL-	grow
-IS-	come
-I-(-y-)	go
-U-(-w-)	fall
-Ó-	swim

3.1.I. First, with <u>zero</u> pre-radical tense-sign:-

(01)

		'straight'	+ R	± (LP)
Lmp Lr	n-lek-a ⟶	ndeka	ndéka	–
	n-lek-el-a	ndekela	ndékelá	–
	n-lek-el-el-a	ndëkelela	ndékelelá	–
Lmp Hr	n-láb-a ⟶	ndébá	ndábá	–
	n-láb-il-a	ndébíla	ndábilá	–
	n-láb-il-il-a	ndábílila	ndábililá	–

(All other L prefixes in main sentence tense: as n-)

(In OR, see below)

		'straight'	+ R	± (LP)
Hmp Lr	á-lek-a ⟶	aléka	aléka	aleka
	á-lek-el-a	alékela	alékelá	alekela
	á-lek-el-el-a	alékelela	alékelelá	alekelela
Hmp Hr	á-láb-a ⟶	alábá	alábá	alábá
	á-láb-il-a	alébíla	alábilá	alébíla
	á-láb-il-il-a	alábílila	alábililá	alábílila
Hp Lr	bá-lek-a ⟶	báléka	báléka	baleka
	bá-lek-el-a	bálékela	bálékelá	balekela
	bá-lek-el-el-a	bálékelela	bálékelelá	balekelela
Hp Hr	bá-láb-a ⟶	bálábá	bálábá	balábá
	bá-láb-il-a	bálábíla	bálábilá	balébíla
	bá-láb-il-il-a	bálábílila	bálebililá	balábílila

(<u>All</u> other H prefixes: as bá-, in all three forms)

Rules I, II, III: the OR tense R 'fore and aft', and the
SR LP.   Also the new rule: in tenses with R, radical H
doesn't 'double'.   In OR, all personal monophones (∝, √,
1) behave like á- ;   the non-personal monophones (3, 4, 9)
behave like bá- in West-Central Bemba, and like the
personal monophones in East Bemba(?).

3.1.2. With -CV- pre-radical tense-sign:-

(71)		'straight'	+ (OR)	+ (SR)
Lmp Lr	n-ka-kul-a ⟶	nkakula	nkékulé	-
	n-ka-kul-il-a	nkakulila	nkákulilé	-
	n-ka-kul-il-il-a	nkakulilila	nkékulililé	-
Lmp Hr	n-ka-kúl-a ⟶	nkakúlá	ńkakúlé	-
	n-ka-kúl-il-a	nkakúlíla	ńkakúlilé	-
	n-ka-kúl-il-il-a	nkakúlílila	ńkakúlililé	-
Hmp Lr	é-ka-kul-a ⟶	akákula	akákulé	akakula
	é-ka-kul-il-a	akákulila	akákulilé	akakulila
	é-ka-kul-il-il-a	akákulilila	akákulililé	akakulilila
Hmp Hr	é-ka-kúl-a ⟶	akakúlá	ákakúlé	akakúlé
	é-ka-kúl-il-a	akakúlíla	ákakúlilé	akakúlíla
	é-ka-kúl-il-il-a	akakúlílila	ákakúlililé	akakúlílila
Lp Hr	tu-ka-kul-a ⟶	tukakula	túkákulé	-
	tu-ka-kul-il-a	tukakulila	túkákulilé	-
	tu-ka-kul-il-il-a	tukakulilila	túkákulililé	-
Lp Hr	tu-ka-kúl-a ⟶	tukakúlé	túkakúlé	-
	tu-ka-kúl-il-a	tukakúlíla	túkakúlilé	-
	tu-ka-kúl-il-il-a	tukakúlílila	túkakúlililé	-
Hp Lr	bé-ka-kul-a ⟶	bákékula	bákákulé	bakakula
	bé-ka-kul-il-a	bákékulila	bákákulilé	bakakulila
	bé-ka-kul-il-il-a	bákékulilila	bákékulililé	bakakulilíla
Hp Hr	bé-ka-kúl-a ⟶	békekúlé	békakúlé	bakakúlé
	bé-ka-kúl-il-a	bakakúlíla	bakakúlilé	bakakúlíla
	bé-ka-kúl-il-il-a	bakakúlílila	bakakúlililé	bakakúlílila

Rules I, II, III - all as in previous example.

3.1.3. With -OVV- pre-radical tense-sign:-
(O3)

	'straight'	+ R	+ (SR)
n-lée-kul-a ⟶	ndéékula	ndéékulá	-
n-lée-kul-ila	ndéékulila	ndéékulilá	-
n-lée-kul-il-il-a	ndéékulilila	ndéékulililá	-
n-lée-kúl-a ⟶	ndéékúlá	ndéékúlá	-
n-lée-kúl-il-a	ndéékúlíla	ndéékúlílá	-
n-lée-kúl-il-il-a	ndéékúlílila	ndéékúlílilá	-
é-lée-kul-a ⟶	sléékula	sléékulá	sléékula
é-lée-kul-il-a	sléékulila	sléékulilá	sléékulila
é-lée-kul-il-il-a	sléékulilila	sléékulililá	sléékulilila
é-lée-kúl-a ⟶	sléékúlá	sléékúlá	sléékúla
é-lée-kúl-il-a	sléékúlíla	sléékúlílá	sléékúlíla
é-lée-kúl-il-il-a	sléékúlílila	sléékúlílilá	sléékúlílila
tu-lée-kul-a ⟶	tuléékula	túléékulá	-
tu-lée-kul-il-a	tuléékulila	túléékulilá	-
tu-lée-kul-il-il-a	tuléékulilila	túléékulililá	-
tu-lée-kúl-a ⟶	tuléékúlá	túléékúlá	-
tu-lée-kúl-il-a	tuléékúlíla	túléékúlílá	-
tu-lée-kúl-il-il-a	tuléékúlíla	túléékúlílilá	-
bá-lée-kul-a ⟶	béléékula	béléékulá	beléékula
bá-lée-kul-il-a	béléékulila	béléékulilá	beléékulila
bá-lée-kul-il-il-a	béléékulilila	béléékulililá	beléékulilila
bá-lée-kúl-a ⟶	béléékúlá	béléékúlá	beléékúlá
bá-lée-kúl-il-a	béléékúlíla	béléékúlílá	beléékúlíla
bá-lée-kúl-il-il-a	béléékúlílila	béléékúlílilá	beléékúlílila

3.1.4(a) With -V- pre-radical tense-sign:-

(11)

	'straight'	+ R	+ LP
n-a-lek-ile[1] P ⟶	naalekélé	náálekélé	–
n-a-lek-el-ele P	naalekéélé	náálekéélé	–
n-a-lek-el-el-ele P	naalekéléélé	náálekéléélé	–
n-a-lab-ile P ⟶	naalábílé	náálábílé	–
n-a-láb-il-ile P	naalébíílé	náálábíílé	–
n-a-láb-il-il-ile P	naalabílíílé	náálabílíílé	–
á-a-lek-ele P ⟶	áálekélé	áálekélé	aalekélé
á-a-lek-el-ele P	áálekéélé	áálekéélé	aalekéélé
á-a-lek-el-el-ele P	áálekeléélé	áálekéléélé	aalekéléélé
á-a-láb-ile P ⟶	áálábílé	áálábílé	aalábílé
á-a-láb-il-ile P	áálabítlé	áálabíílé	aalabíílé
á-a-láb-il-il-ile P	áálabílíílé	áálabílíílé	aalabílíílé
tu-a-lek-ele ⟶	twaalekélé	twáálekélé	–
tu-a-lek-el-ele P	twaalekéélé	twáálekéélé	–
tu-a-lek-el-el-ele P	twaalekéléélé	twáálekéléélé	–
tu-a-láb-ile P ⟶	twaalábílé	twáálábílé	–
tu-a-láb-il-ile P	twaalabíílé	twáálabíílé	–
tu-a-láb-il-il-ile P	twaalabílíílé	twáálabílíílé	–
bá-a-lek-ele P ⟶	báálekélé	báálekélé	baalekélé
bá-a-lek-el-ele P	báálekéélé	báálekéélé	baalekéélé
bá-a-lek-el-el-ele P	báálekéléélé	báálekéléélé	baalekéléélé
bá-a-láb-ile P ⟶	báálábílé	báálábílé	baalábílé
bá-a-láb-il-ile P	báálabíílé	báálabíílé	baalabíílé
bá-a-láb-il-il-ile P	báálabílíílé	báálabílíílé	baalabílíílé

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[1] Instead of *-ile, henceforth for ease of both typing and reading, I shall write either -ile or -ele as appropriate.

3.1.4(b)   With -V́- pre-radical tense-sign:-

(21)

	'straight'	(OR)	(LP)
n-á-lek-ele ⟶	naalékele	nááĺekelé	-
n-á-lek-el-ele	naalékeele	nááĺokeelé	-
n-á-lek-el-el-ele	naalékeleele	nááĺekeleelé	-
n-á-láb-ile ⟶	naalábíle	nááĺebilé	-
n-á-láb-il-ile	naalábíile	nááĺabiilé	-
n-á-láb-il-il-ile	naalábíliile	nááĺabiliilé	-
á-á-lek-ele ⟶	áálékele	ááĺékelé	aalékele
á-á-lek-el-ele	áálékeele	ááĺékeelé	aalékeele
á-á-lek-el-el-ele	áálékeleele	ááĺékeleelé	aalékeleele
á-á-láb-ile ⟶	áálábile	ááĺábilé	aalábíle
á-á-láb-il-ile	áálábíile	ááĺabiilé	aalábíile
á-á-láb-il-il-ile	áálábíliile	ááĺábiliilé	aalábíliile
tu-á-lek-ele ⟶	twaalékele	twááĺékelé	-
tu-á-lek-el-ele	twaalékeele	twááĺékeelé	-
tu-á-lek-el-el-ele	twaalékeleele	twááĺékeleelé	-
tu-á-láb-ile ⟶	twaalábíle	twááĺábilé	-
tu-á-láb-il-ile	twaalábíile	twááĺábiilé	-
tu-á-láb-il-il-ile	twaalábíliile	twááĺabiliilé	-
bá-á-lek-ele ⟶	báálékele	bááĺékelé	baalékele
bá-á-lek-el-ele	báálékeele	bááĺékeelé	baalékeele
bá-á-lek-el-el-ele	báálékeleele	bááĺékeleelé	baalékeleele
bá-á-láb-ile ⟶	báálábíle	bááĺábilé	baalábíle
bá-á-láb-il-ile	báálábíile	bááĺábiilé	baalábíile
bá-á-láb-il-il-ile	báálábíliile	bááĺábiliilé	baalábíliile

3.1.5.   With -VoVV- pre-radical tense sign and D:-

(58)

n-áláa-kul-a   D   ⟶   naalúúkúlá
n-áláa-kul-il-a   D   naalúákúlílá
n-áláa-kul-il-il-a   D   naalúákúlílílá

n-áláa-kúl-a   D   ⟶   naalúákúlá
n-áláa-kúl-il-a   D   naalóakúlílá
n-áláa-kúl-il-il-a   D   naalóakúlílílá

á-áláa-kul-a   D   ⟶   ááláakúlá
á-áláa-kul-il-a   D   áálaakúlílá
á-áláa-kul-il-il-a   D   áálaakúlílílá

á-áláa-kúl-a   D   ⟶   ááláakúlá
á-áláa-kúl-il-a   D   áálaakúlílá
á-áláa-kúl-il-il-a   D   áálaakúlílílá

No further illustrations are needed: tenses having D
are automatically even-numbered, and therefore never
occur with OR or SR tone-patterns (although they and
other even-numbered tenses can and do occur after
relative headwords; cf. p.168 (note)).

(P)   For illustrations, see under 'tenses having -V-
pre-radical tense sign.'

All syllables after radical are always high: these
high toned syllables behave as if _structurally_ high, viz:-

á-lek-el-el-ele   P   ⟶   áleké́lé́é́lé́ (05) he has quite left off
bá-i-lek-el-el-a   F > P ⟶   bée̋lekéĺélá (neg.801) let them not
                                             leave off altogether

3.1.6.   (F)

        (S 01)

n-lek-e F	⟶	ńdeké
n-lek-el-e F		ndékelé
n-lek-el-el-e F		ndékelelé
n-lǝb-e F	⟶	ńdǝbé
n-lǝb-il-e		ndǝbilé
n-lǝb-il-il-e F		ndǝbililé
ǝ-lek-e F	⟶	ǝ́leké
ǝ-lek-el-e F		ǝlékelé
ǝ-lek-el-el-e F		ǝlékelelé
ǝ-lǝb-e F	⟶	ǝ́lǝbé
ǝ-lǝb-il-e F		ǝlǝbilé
ǝ-lǝb-il-il-e F		ǝlǝbililé
tu-lek-e F	⟶	túleké
tu-lek-el-e F		túlékelé
tu-lek-el-el-e F		túlékelelé
tu-lǝb-e F	⟶	túlǝbé
tu-lǝb-il-e F		túlǝbilé
tu-lǝb-il-il-e F		túlǝbililé

(<u>All</u> other prefixes whether monophones or diphones,
behave like tu-)

3.1.7. With -V́- pre-radical tense-sign: (a) with P; (b) with LP and P > 0.

(a) 8.01 neg.

n-í-lek-a P ⟶ nííleké (or níndeké)[1]
n-í-lek-el-el-a P   níílekelélá (or níndekélélá)
n-í-léb-a P   níílébé (or níndébé)
n-í-léb-il-il-a P   níílebílílá (or níndébílílá)
tu-í-lek-(el-el)a P   twíílek(elél)á
tu-í-léb-(il-il)-a P·   twííléb(ílíl)á
(b)á-í-lek-(el-el)-a P   (b)éélek(elél)á
(b)á-í-léb-(il-il)-a P   (b)éélép(ílíl)á

(b) 8.02 neg.

n-ˋ-í-lek-(el-el)a O ⟶ níílék(elel)a (or níndék(elel)a)
n-ˋ-í-léb-a O   níílébá (or níndébá)
n-ˋ-í-léb-il-il-a O   níílebílíla (or níndébílíla)
(b)á-ˋ-í-lek-(el-el-)a O (b)eelék(elel)a
(b)á-ˋ-í-léb-a O   (b)eelébá
(b)á-ˋ-í-léb-il-il-a O   (b)eelébílíla

No further examples needed.

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[1] The geographical distribution of the nín- form is unknown to me: it does occur in some Central Bembas' speech, however, so it is here quoted.

3.1.8.   (TD)   Tenses having 'tonal determinants'.

(1) tə-`- (71 neg)

tə-`-bé-ska-lek-el-el-e P ⟶ təbaskalekélélé

tə-`-bé-ska-láb-il-il-e P   təbaskalábílílé

The syllable following the tə- in negative future tenses is always low: since this syllable is always the subject prefix, we could equally well formulate this as "in negative future tenses, all subject prefixes are low."

(2) tə-´- (in past tenses, eg. 11/12)

(a) tə-´-tu-a-lek-el-el-ele P ⟶ tatwáálekéléélé
     tə-´-tu-a-láb-il-il-ile P   tatwáálábílílé

(b) tə-´-bé-a-   etc. as (a)

(c) tə-´-á-a-lek- P   ⟶   e.g. táálekéléélé
     tə-´-á-a-láb- P   e.g. táálábílílé

(3) ə-´- (H011, 013/014)

(a) ə-´-tu-lek-el-el-ə P   ⟶   ətúlekélélá
     ə-´-tu-láb-il-il-ə P   ətúlábílílá

(b) ə-´-bá-   etc. as (a)

(c) ə-´-á-lek-el-el-ə P   ⟶   alekélélá
     ə-´-á-láb-il-il-ə P   alábílílá

(4) náə-´- (06) shows nothing unusual, but note that náə-´- + -á-Hm gives náə- before L and náə- before H; once again á-Hm vanishes, taking the 'determined' h with it.   (The ∝ and ɣ forms of the pre-prefixalin this tense may be regarded as straight níí- and núu-[1] respectively, with no 'determinant'; being represented as níín- and núu- before H and níín-, núú- before L.)

_____

[1] Though náə-´- is also possible before ɣ .

ta- in past and zero time tenses, or a- in hypo-
theticals, or náa- in 06, are always followed by a high
tone.[1]

3.1.9.   TD   ta-´-z- -ile F

(05 neg)

ta-´-á-lek-ele F	⟶	talekele´	(aʃílékele´ aʃílékeié)
ta-´-á-lek-el-ele F		talekeelé	etc. etc.
ta-´-á-lek-el-el-ele F		talekelæelé	

ta-´-á-láb-ile F	⟶	talabilé	(NB. talábilé would be
ta-´-á-láb-il-ile F		talábiilé	rhetorical negative)
ta-´-á-láb-il-il-ile F		talábiliilé	

ta-´-tu-lek-ele F	⟶	tatúlékelé	(túʃílékelé)
ta-´-tu-lek-el-ele F		tatúlékeelé	etc.
ta-´-tu-lek-el-el-ele F		tatúlékeleelé	

ta-´-tu-láb-ile F	⟶	tatúlábilé	
ta-´-tu-láb-il-ile F		tatúlábiilé	
ta-´-tu-láb-il-il-£le F		tatúlábiliilé	

All other prefixes like tu- in main sentence and OR, and
like á- in SR).   The intrusion of an object infix has
no effect on this F.   (It does in the case of S 01,
see Rule VIa, p. 135.)

---

[1] NB. When the á- of Cl.1 is preceded by a pre-initial
element itself ending in -a-, it is not represented in
any way <u>except</u> that any 'determined' tone that might
have been expected to have alighted on the <u>next</u> mora
after the 'missing' á-, disappears along with the á- !
The á- acts as if it 'had been there' to this extent,
that its 'ghost' blocks the tonal determinant: or, if
you like, "subject prefixes in these tenses are always
high, except for ∝ (which is not preceded by ta-), and
(1) (which is not represented at all)".

3.1.10.   It is also worth while considering the case of verbs whose radicals begin with a vowel and/or end with a vowel.

Tonally and phonally speaking, the simplest tense is O1:

n-(j)is-a ⟶	njisa	n-(j)-ím-a ⟶	njímá
n-(j)is-il-a	nji∫ila	n-(j)-ím-in-a	njímíns
n-(j)is-il-il-a	nji∫ilila	n-(j)-ím-in-in-a	njímínins
á-is-a ⟶	éésa	á-ím-a ⟶	éémá
á-is-il-a	éé∫ila	á-ím-in-a	éémíns
á-is-il-il-a	éé∫ilila	á-ím-in-in-a	éémíníns
tu-is-a ⟶	twiisa	tu-ím-a ⟶	twiímá
tu-is-il-a	twii∫ila	tu-ím-in-a	twiímíns
tu-is-il-il-a	twii∫ilila	tu-ím-in-in-a	twiímíníns

All is in accordance with the normal rules of Tonal Representation.

Tense (O5) offers some nice examples of Tonal Representation Rule Xb:-

á-is-ile P ⟶ éé∫ile   (= éé∫ilé, heard as shown)

bá-is-ile P   béé∫ile   (similarly)

When considering the radical -Y- (or better -I-) we must remember that L + Hm (identical vowels) in junction give a short low-tone vowel (Hm + L, identical vowels, give a short high).

(Thus ta- + á- > taᵧ,   a- + á- > a-,   í- + i- > í-   (Cl.5) etc.):

n-(j)i-ile P ⟶ njilé   (i- + í- > i-)

á-i-ile P   ééle   (Rule Xb)

Radicals -W- (or -U-) and -Ó(W)-[1] present a pleasing contrast in phonologies:

n-Zu-ile P ⟶ ngwiilé
n-Zóz-ele P ⟶ ngóélé

BUT

á-Zu-ile P ⟶ áwiilé and bá-Zu-ile P ⟶ báwiilé
á-Zóz-ele P ⟶ óóélé and bá-Zóz-ele P ⟶ bóóélé

AND

u-Zu-ile P ⟶ uwiilé and tu/mu-Zu-ile P ⟶ tuwiilé/mwiilé
u-Zóz-ele P ⟶ ooélé and tu/mu-Zóz-ele P ⟶ tooélé/mooélé

---

[1] Common Bantu *-gu- and *-yóg- respectively. The -g- of *-gu- prevents fusion between prefix and radical in Bemba, while the -y- of *-yóg- does not. The -g- of -yóg- prevents fusion between radical and suffix. Both the -g- of *-gu- and the -y- of *-yóg- turn up as -g- after n-.

3.2. Tonal Analysis

Given the material provided by the foregoing morphophonological examples we may now embark upon a tonal analysis of the verb, with the object of discovering the rules of tonal representation (if any).[1] This is 'logically' a prerequisite to any further tabulation of tenses by forms and meanings, since without such an analysis we cannot know whether two (tonally) differing forms are members of two different tenses, or members of the same tense affected in some way that makes them appear different - likewise, we cannot tell if two (tonally) similar forms are genuinely members of one single tense, or members of two different tenses made to appear similar by two different processes (starting from different structural forms, and, by different routes arriving at externally similar end-products).[2]

However, it will be observed that even the foregoing examples are as it were 'suspect', since we cannot really be sure that forms assumed to be related one to another are in fact so related; all we can do (and have done) is: use a combination of formally similar recognition-signs on the one hand, with grouped semantic similarities on the other, and (invoking the simplicity postulate) say: "where both formal and semantic similarities are very strong, let us assume that we are dealing with members of the same tense-series", and further: "Where we observe what appears to be patterned relationships between forms and meanings, let us assume actual relationship, even though we have neither proved the relationship nor analysed the rules governing the pattern". These working hypotheses have in fact and of course been subsumed in the making of the example-list: they had to be.

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[1] When making an analysis of this type it is of the greatest importance to confine one's examples to one dialect only: otherwise the picture is confused and confusing, because the tonal behaviour of each dialect is different. Thus Mporokoso, Kaputu, and Kawambwa and Chinsali types of Bemba are not here considered: their rules would be similar, but not necessarily identical.

[2] Neither, as happens in many Bantu languages, can we state the formal differences between 'main sentence', 'object relative' and 'subject relative' tenses.

What one actually relies on in the compilation of such a list is 'growing conviction' - as in all scientific thought-processes one works inductively. 'Historically' speaking, the outline of the tabulation was achieved <u>before</u> the tonal analysis - enough tonal and other formal similarities between semantically related tenses had been observed or 'intuited' to warrant the compilation of a far-more-than-tentative table well before the actual rules of tonal representation had been worked out. (This might not be possible in every language: but it happened to be so in Bemba.)

Some of the more tenuous and dubious relationships were later clarified and strengthened by the tonal analysis; and many knotty points were finally cleared up. But the practical procedure could not be 'logical' - it was mostly intuitive, making jumps in the dark, making warrantable (and even unwarrantable) assumptions, and repeating to oneself such remarks as: "There <u>must</u> be a System in all this !" In short, a piece of linguistic cryptography (or to use the American term, cryptanalysis), rather than a piece of linguistic (deductive) algebra: it was necessary to work on all conceivable fronts simultaneously, and precisely <u>not</u> deliberately to discard or exclude information because it was logically suspect, 'out of order' or tainted with non-formalism.

However, it is most convenient (from an 'explanatory' point of view) to give the method of tonal analysis at <u>this</u> stage: I admit that it is in a sense 'unfair' or at any rate non-chronological, but it makes the <u>present</u> exposition much easier to handle, both for author and reader.

For many of the concepts and terms here used (e.g. diatony, raised final, post-radical high), I am indebted to Dr. A. E. Meeussen, who also showed me how the analysis might be made, and in collaboration with whom all the 'foundation-laying' was done. TROST was the final outcome, and § 3.2.3.| is simply a somewhat refined version of TROST. Please remember the actual original analysis was not conducted as smoothly as that which now follows !

3.2.1.1.   Take a finite verb which is all low tones, eg.
tukosobokelela... (O1)   we always get completely strong again

This is the 1st person plural of tense O1 of
-KOSobokelel- (bec. completely strong again after being weak).
-KOSobokelel- is structurally low-toned, as can be
determined from its general behaviour within Bemba.

The 1st. pers. plur. prefix is tu- (structural low,
determined from general behaviour within Bemba, confirmed
from Common Bantu).   The pre-radical tense sign is zero
(therefore quite likely to have, and in fact having, zero
effect on tones also: this effect could not possibly be
assumed, however - we might have had a zero tense sign
that produced a high on the radical, or associated with
post-radical high, or any other thing).

The suffix is -a (structural low - if not interfered
with, or 'molested' - this can also be determined from
general behaviour within Bemba).

3.2.1.2.   Evidently when we put together a number of structurally
                        and
low-toned elements/there is no external interference, the
result is a row of low tones in speech.

3.2.1.3.   Let us now introduce a clearly high-toned prefix:
bákósobokelela ... (O1)   (bá- is 3rd pers. plur., and
structurally high - both within Bemba and in Common Bantu.)
This would seem to suggest that when H is followed by a
series of L's, we hear H h l .... (we can confirm by
trying out all other clearly H prefixes).
Tentative Rule I: H L L L....   ⟶   h h l l ....

3.2.1.4.   Reverting to our L-prefix, let us introduce an H
radical:
tufúlúmukilila
The radical is -FÚLumukilil- ('start-up'-and-run-away-
completely).   We may account for the two H's by invoking

the rule stated in 3.2.1.3.above, which seems to apply to **things** other than prefixes.

3.2.1.5. If we try an H prefix before this, nothing strange occurs.

3.2.1.6. Let us now try another tense:

tukskosobokelela...　　(71)　- also all low

bskskosobokelela...　　(71)　- see Rule I

tukefulúmukilila...　　(71)　- see Rule I

BUT békefulúmukilila...　　(71)　- the H of bá- does <u>not</u>

double onto -ks-.　We can show this to be a general rule,
such that:

(Tentative) Rule II;　H　L　H....　→　h　l　h....

3.211.7.　　Now let us try the Cl.1 prefix a- :

akósobokelela...　　　(01)

This is odd: whence comes the h on -kos-, a high tone of
a kind which does <u>not</u> double onto -ob- ?　Assume a- is
structural H, and that this H doubles onto -kos- in the
normal way, and (simplest) goes no further:　and that the
H of á- is realized <u>in contrast</u> to the following syllable
(apparently not so simple, but see what happens...)

3.2.
3 .1.8.　　The same prefix with the extra syllable in the tense:

akskosobokelela...　　(71)　(Confirming our assumption in 7.)

3.2.1.9.　　The same prefix with the extra syllable and an H radical:

ákefulúmukilila...　　(71)　(Confirming our assumption in 7.)

(This time the H of á- cannot get onto -ka- because of
Rule II:　á- realizes itself in tonal contrast with what
follows (III).)

3.2.1.10. (a) If we try Cl.3 ú-, Cl.4 í-, and Cl.9 í-, nothing
remarkable occurs.

(b) Nor does it if we try Cl. α (ǹ-) and Cl. γ (u-).

3.2.1.11. So far we have:

    Rule I: H L L L ...   ⟶   h h l l ...

       II: H L H ...   ⟶   h l h ...

     III: personal H_m L L ... ⟶ l h l ...

    (<u>but</u>: personal H_m L H ... ⟶ h l h ... (cf. II)

3.2.1.12. What happens if we use a tense having a vowel between prefix and radical?

    twaakósobokelela...   (41)

Here again a high tone has 'got in' from somewhere: (?)from the -a- : this would give a rule analogous to III above. A similar case is provided by 21:   twaakósobokeleele...

3.2.1.13. A tense with the same vowel, but not giving a high tone on an other wise low radical:

    twaakosóbokéléele...   (11)

Here the radical has remained low, but everything following is high.

3.2.1.14. What happens if we use a high tone prefix in this same tense?

    báakosóbokélééle...   (11)

This could be explained by invoking Rule I: H L L ⟶ h h l

3.2.1.15. What if we use the high prefix before a structurally high radical?

    báafulúmukíliíle...   (11)

This must surely be H͡L H ⟶ h͡l h (Rule II)

3.2.1.16. So we may postulate -A- (low) as our tense sign for 11 and -Á- (high) as that for 21 and 41 above. If this hypothesis is correct, we may formulate two further rules:

    (a) Structural low-high (to be contracted) obeys Rules I and II, the resultant long vowel being represented in tonal contrast to the following element.

    (b) Structural high-low simply obeys Rules I and II.

3.2.1.17. These can be consolidated into three major rules, viz.

    I. Structural high doubles on following low element only if next element is also low.

II. Structural low-high (to be contracted) obeys Rule I,
the resultant long vowel being represented in tonal
contrast to the following element. (Structural
high-low simply obeys Rule I.)

III. Cl.1 á- when not subject to contraction obeys
Rule I, the prefix itself being represented in tonal
contrast to the following element. Other monophone
prefixes not subject to contraction simply obey
Rule I.   All monophones subject to contraction
obey Rule II.

However, unknown to us at this stage, Rule III
is not yet finalized - we shall have to study relative
tenses before we can get the full picture.

3.2.1.18.   We have achieved three fundamental rules of
tonal representation; but there are several more features
to be considered.   First let us examine tense 11 quoted
above:

twaakosóbókéléélé	we were quite convinced ...
twaafúlúmúkílíílé	we completely confused ...
twaalekéléélé	we abandoned ...
twaalábílíílé	we quite forgot ...
twaalekélé	we left ...
twaalábílé	we forgot ...

Whatever examples we take, we always find that the r has
its own tone, and everything after the r is high.

3.2.1.19.   Other positive tenses having this same characteristic
are 15, 05, 06, 011.
We call this characteristic 'post-radical high', abbreviation
(P).   (P) may itself be found to have variants: but for
the moment, we can simply state that 'in Bemba, the
phenomenon (P) occurs in certain tenses'.

3.2.1.20.   Next, tense O4 has the following tone-pattern with
low prefix and low radical:-

(a) tuléékúlílílé   we are dragging

and with low prefix and high radical:-

(b) tuléékúlílílé   we are growing (intr.)

But tense O3 has these patterns:-

(c) tuléékulílíle ...   we are dragging

(d) tuléékúlílíle ...   we are growing

3.2.1.21.   We may account for O3 by invoking Rules I and II:

$$\widehat{HL} \quad L \quad L \quad \longrightarrow \quad \widehat{hh} \quad l \quad l \quad \text{(Rule I)}$$

and $\widehat{HL} \quad H \quad L \quad \longrightarrow \quad \widehat{hl} \quad h \quad h \quad \text{(Rule I twice)}$

We can therefore say that O4 differs from O3 in
that every syllable after the last structural high is
raised: in the case of 20 (a) we have:-

tu-léé-kul-il-il-a + D ⟶ tuléékúlílílé   we are dragging
                                           (completely away)

in the case of 20 (b) above, we have:-

tu-léé-kúl-il-il-a + D ⟶ tuléékúlílílé   we are growing up
                                           (completely)

3.2.1.22.   Other positive tenses having this characteristic are
12, 22.2, 42, 02.2, 72; 14, 24, 34, 04, (54), (52?), 74;
16; 58; O14; 072; 074; S O4, S 74.

We may call this characteristic 'diatony' (a 'doubling-
through' of the last structural high) - abbreviation (D).

3.2.1.23.   Tense S O1 has this tone-pattern with low prefix and
low radical:

(a) ... túkúlílílé,   túkúlílé,   túkulé ;   (drag)

with low prefix and high radical:

(b) ... túkúlílílé,   túkúlílé,   túkulé ;   (grow)

with high prefix and low radical:

(c) ... békúlílílé,   békúlílé,   békulé;   (drag)

with high prefix and high radical:

(d) ... békúlílílé,   békúlílé,   békulé   (grow)

3.2.1.24.   It appears that (i) the final -e is always high,
and that (ii) the prefix is always high, and that (iii)
there is always at least one low syllable between prefix
and final -é; even if, to obtain it, we have to obliterate
the natural H on an H-radical.

3.2.1.25.   The only other tense apparently having this
characteristic is a negative - 05/06.   We cannot be
absolutely sure at this stage that it is in fact the same
characteristic, because the high tone on the prefixes of
this tense is evidently determined in some way by the
pre-prefix ta- : the 1st pers. sing. has n(si)-, low;
while all other prefixes, being preceded by ta, are high.
Let us therefore examine all the negative tenses having
pre-prefix ta- .

3.2.1.26.   Taking tense 11 as our starting point: we know that
the positive form has the tense signs -A- -ILE (P).   The
negative, with low prefix and low radical, has the pattern
tatwáakosóobokeléélé.

         This would be consistent with a high prefix: every-
thing else in the neighbourhood being low.

3.2.1.27.   On examination, we find that negative tenses 15; 11,
13, 14; 21, 22, 23, 24; 31, 32, 33, 34 all share this
characteristic.   They all have high prefixes (even when
the prefix is known to be structurally L, and in a position
where the low could have been realized.)   Their other
tonal characteristics are identical with their positive
fellows.

3.2.1.28.   We may postulate ta-´- as the negative sign of all
past tenses; other signs and tones being identical with
positives.

3.2.1.29.　　　　When we come to consider zero-time tenses, we also find that all prefixes are high, and that other signs remain the same as the positives. But the tones change. Negative 01 has (low p., low r). We use -KUL- , drag.

(a) ... tatúkulílílé　　　(positive tukulilila)

Negative 05 has

(b) ... tatúkúlilílé　　　(positive tukulílíílé)

Negative 03 has

(c) ... tatúleekúlilila　(positive tuléékulilila)

3.2.1.30.　　　　Neg.01 is therefore ta-´-z- -a + P

　　　　　　Neg.05 is　　　　　ta-´-z- -ile + F

　　　　　　Neg.03 is　　　　　ta-´-leé- -a

We shall have more to say about these, and especially about Neg.03, later.

3.2.1.31.　　　　Future tenses are best considered by taking Neg. 71 first. With low radical and low prefix we have:

(a) ... tatwaakakulílílé

With low radical and high prefix, we have:

(b) ... tabaakakulílílé

We may conclude that the signs involved are:

　　　　ta-`-aka- -e + P　　　(positive -ka- -a)

3.2.1.32.　　　　Neg.51 (positive 51 = 41, but 51 is definitely used as a future) has:

(a) ... tatwaakulílílé

(b) ... tabaakulílílé

This could be ta-`-a- -e + P　　(positive -a- -a)

3.2.1.33.　　　　Neg. 73.

(a) ... tatwaakaleékulilila

(b) ... tabaakaleékulilila

This is ta-`-akalee- -a　　(positive -kalaa- -a)

3.2.1.34. All three of these can be reduced to one system, by simply postulating that future negatives bear this relationship to the positives:- where a positive is of the form:

(a) ... -x- -a

the corresponding negative will be

(b) ... ta-` -ax- -e + P

71 pos.   -ka- -a
71 neg.   ta-` -aka- -e + P

51 pos.   -á- -a
51 neg.   ta-` -aá- -e + P

73 pos.   -kalée- -a
73 neg.   ta-` -akalée- -a   (the P turns up, as does the final -e, in the -lée-)

- this is by no means an isolated phenomenon: it occurs throughout the tenses in cols. 3 and 4, 7 and 8.

3.2.1.35. We may observe high prefixes throughout tense 06.

Examples:

naatukulilila   (β is normally tu-)
naamukulilila   (δ is normally mu-)

We conclude that the signs here are:

náa- ´- -a + P

3.2.1.36. Tenses 011; 013/014 also have high prefixes throughout.

atúkulílíla   011
atúléekulilila   013

The signs are: a-´ - -a + P   011
                a-´ -léa- -a   013 (and with D for 014)

3.2.1.37. The pre-prefixal elements ta-´, ta-`, náa-´ and a-´ may be described as tonal determinants. Alternatively, we might say that in future negatives, all prefixes are always low, and that elsewhere prefixes after ta-, náa- and a- are represented as in tonal contrast to the preceding syllable.

3.2.1.38.   But, in all these tenses with pre-prefixal elements
(such as ta-´, ta-`, a-´, and náa-`) we find that O1.1 á-
produces a very odd effect. Eg:-

    a-´-á-lek-a P ——→ aleká   H O11 had he stopped...
    ta-´-á-lek-ele F ——→ talekelé   neg.O5 he hasn't stopped

The á- vanishes, together with its tonal effect, and
indeed together with the tone 'determined' by the pre-
prefixal - except in the case of neg. O1, where we find, eg:-

    ta-´-á-lek-el-el-a P→tálekélélá neg.O1 he doesn't stop com-
    ta-´-á-lab-il-il-a P→tálábílílá neg.o1 pletely, abandon altogether
                                               he doesn't forget
                                               completely
(as if ta-´-á- simply becomes tá-)

3...1.39.   Relative Tenses. These are of two types: those used
when the word at the head of the relative clause is the
object of the clause, and those used when the relative
'head-word' is the subject of the clause.   They are
tonally distinct.   Object-relative tenses have a high
prefix and a final syllable in harmony with the prefix.

3.2.1.40.   Taking object relative tense O1 with (otherwise) low
prefix and low radical, we have:
(a) ... túkúlililá
with (otherwise) low prefix and high radical we have:
(b) ... túkúlililá
The signs are ´- ... -á.   But the behaviour of this
overall pattern is different from that of a tense having
'high final' (eg. S O1).   For example, it does not demand
at least one low between prefix and final. We therefore
describe this phenomenon as 'raised final' (R) (to
distinguish it from high final (F).)

3.2.1.41.   Object relative tenses involving other signs retain
all the tonal characteristics of the main sentence tenses[1],

---

[1]Except that the syllable following an inherently high radical
does not accept doubling: this fact does not show up except in
the cases where there are sufficient 'open' syllables between
radical and suffix to allow it.

but superpose (R). Often, the final syllable is already high (eg. in tenses already having (P)). When this occurs, and the prefix is already intrinsically high, the (R) tense is indistinguishable from the main sentence tense.

3.2.1.42.   In certain tenses, including subject relative tenses, all prefixes are low, irrespective of their inherent tone: at this stage, we simply note this as a fact.

3.2.1.43.   Finally, the behaviour of long-vowel radicals and radical-equivalents with high first mora turns out to require special examination; while the imperative has rules of its own. For example, we find that: tu-poos-a + F (S), which we would expect to give túpoosá, actually produces túpoosé; tu-léet-a + R, which we would expect to give túléetá, actually gives túléetó; náa-'-cí-mu-isalil-a P, which we would expect to give náacímwiisalílá, actually gives náacímwiisalílá. In all these cases, the tones after the step sound low to me.

3.2.2.   The foregoing analysis is sufficient to set us on the road to discovering our rules of tonal representation, and hence to deducing the structural tones of our tense signs. Until this has been done, we cannot be sure that our tabulation of tenses is (a) complete, and (b) reasonable. (Indeed we cannot even be sure whether a given form is one tense or another.) But, as will be seen from the rules of tonal representation as finally refined, there were in fact many steps of argument between this stage and the end-pproduct.

3.2.2.1.   We may make the following general observations: (a) there are evidently two basic rules of tonal representation (Rules I and II);

(b) personal monophone **prefixes** require special treat-
ment (Rule III);

(c) in certain tenses, a total ('overall') pattern occurs,
even if this means overriding the inherent tones of
certain elements in the given tense, or even (on a
very limited number of occasions) overriding basic
Rules I and II;

(d) long vowel radicals and radical equivalents with
high first mora and low second require special
treatment;

(e) tonally, the Imperative falls outside the tense
system, and requires rules of its own.

(a) and (b) need no further comment.

3.2.2.2.   Under (c), the following basic patterns can be
detected:

(1) tenses with distony (D)

(2) tenses with post-radical high (P)

(3) tenses with high prefix and raised final (R)

(4) tenses with subjunctive imposed-pattern (S)

(5) one tense with high prefix and high final (F)(S)

(6) one tense with high final only (F)

(7) tenses with low prefix (LP)

(8) tenses with tonal-determinant 'pre-initial' elements
(TD).

3.2.2.2 (1)   Category (1) contains all positive even-numbered main-
sequence tenses but O6 (which is in any case unique among
them in having a pre-prefixal tense sign), all even-numbered
negative progressive tenses, neg. 22, neg. 32. (In the
remaining negative tenses, odd and even are not distin-
guished.)   All positive tenses with distony have pre-
radical tense signs which are diphones or more. (See
Rules IVa, IVb, V.)

(2) Category (2) contains positive 11, 15, 05, 06: 011:

   and S 71.   Negative 11, 15, 01, 51, 71, S 01, S 71.

All but S 71 and neg. 71 and neg. S 71 (ie the full

futures) have either zero or monophone pre-radical tense

signs (See Rule VIa for a special variety of P).

(3) Category (3) contains all object relative tenses,

and only these.   (See Rules VIIIa, VIIIb.)

(4) Category (4) contains all subjunctives, and only

these: while

(5) Category (5) is positive S 01:   this has the 'basic'

positive subjunctive tone-pattern.   The last syllable is

high, and there is at least one low syllable between this

and the prefix, which is high.   The low 'central' must

be there, even if at the cost of neutralizing an

inherently high radical.   Subjunctive tenses divide into

two: (a) those having a basic pattern H L H, and

(b) those having a basic pattern L H L.

(a) typically have high prefix - low 'central'[1] - high

final[2] (with high final → post-radical high[2] in the

presence of an intrusive pre-radical element: even in

such cases, there is still a low between prefix and final

if there is a tonally 'open' syllable to display it.

(b) typically have low prefix - high 'central' - low

final → low post-radical (since there is always an in-

trusive pre-radical element -í-).

   Negative S 01, and S 71 (positive and negative) we may

suspect of having had a high final which has been replaced

by post-radical high in the presence of an element between

prefix and radical.

---

[1] 'Normally' the radical, but if there is a CV or CVV tense
sign after the prefix, then it carries the 'central' tone.

[2] If there is a CVV pre-radical tense sign, then it carries
the 'post radical' high or the high 'final' - thus S 03
('-leǵ-), and S 73 ('-kalǵe-).

(6) <u>Category (6)</u> is negative 06. The prefixes are all
high after ta-, it is true: but 1st pers. sing. nei-
indicates that the high on the other prefixes is merely
'determined' by the ta-, and is not a part of the basic
pattern of the tense (contrast eg. S 01, where <u>all</u> prefixes
must be high).   High final 'by itself' as in neg. 06, is
<u>not</u> replaced by post-radical high in the presence of an
intrusive pre-radical element.   See Rules VIa, VIb, VIIa,
VIIb.

(7) <u>Category (7)</u> contains all subject relative tenses;
101(b); 071, 072, 073, 074(?); S 02 (See Rule IX).

(8) <u>Category (8)</u> includes the hypotheticals 011, 013,
014;   positive 06; and all main-sentence negative tenses
having pre-initial ta-.

3.2.2.3.   Under (d) above, the following types may be detected:
(i) low-toned long vowel radicals accepting doubling.
     (eg. -POOS- : radical - POOS- accepting doubling).
(ii) radical equivalents with low-toned first element
     accepting doubling.
     (eg. -muEB- : radical -EB- in fusion with -mu-
     accepting doubling).
(iii) high-toned long vowel radicals (eg. -LAal-)
(iv) radical equivalents with high-toned first element
     (eg. -cUB- : radical -UB- in fusion with -ci-).
As far as tone is concerned, a low-tone vowel-consonant
radical and the preceding element are treated as <u>one</u>
element, here called a radical equivalent. (See Rules
Xa, Xb.)

3.2.3.   We can now proceed to the rules themselves, as
deduced from the previous analysis, with the added
'general observations'. Much of what follows is repeated
from TROST, but several new points are made, and new rules
stated.

3.2.3.1. GENERAL

I. Structural high doubles on following low element
only if next element is also low (or zero); but
see Rule VIIIb for the special case of tenses
having raised final.

II. Structural low-high (to be contracted) obeys Rule I,
the resultant long vowel being represented in
tonal contrast to the following element.
(Structural high-low simply obeys Rule I; but
see Rule Xb for the special case of high-low
radicals and radical equivalents.)

Examples: •

I.

H L L → h h l   bá-ka-fik-a ——→ 71 bákafika (kúmúméné)
H L H → h l h   bá-ka-pít-a ——→ 71 bákapítá (múmúsébó)

II.

L͡H L L → l͡l h l   tu-á-fik-a ——→ 41 twaafíka (kúmúméné)
L͡H L L → l͡l h l   tu-í-som-a → neg.8 o2 twiisóma
L͡H L H → h͡h l h   tu-ákulás-tóp-a → 57 twáákulástápá (ámenʃí)
L͡H H → l͡l h   tu-á-pít-a ——→ 41 twaapítá (múmúsébó)
H͡L L → h͡h l   bá-a-fik-ile + P → 11 bááfikílé (kúmúʃí)
H͡L H → h͡l h   bá-a-pít-ile + P → 11 báapítílé (múmúsébó)

(any types not cited are self-evident)

3.2.3.2. _Monophone Prefixes_ (Those consisting of a vowel, or in
Bemba, a nasal consonant only) may be structurally low
(1st and 2nd persons) or high (all other classes). The
structurally low acquire a high tone in object relative
tenses.   In all these respects they are in complete
tonal accordance with the diphone prefixes. Their
behaviour is different, however:

•For meanings, pp.131-138, please see Annexure at pp.147a,
147b, 147c.

IIIa. High monophone personal prefixes (ie. Cl.1, and
Classes ⱨand ʃin object relative tenses), when not
subject to contraction, bbey Rule I, the prefix
itself being represented in tonal contrast to the
following element. (Monophones subject to con-
traction simply obey Rule II.)[1]

Examples:

IIIa. á-ka-fik-a   ⟶   71   ákáfika (mailo)

      á-ka-túm-a   ⟶   71   ákatúmá (kapáászo)

      u-á-fik-a   ⟶   41   waafíka (kúmúsébó)

      ú-a-ful-ile + P ⟶ 11   wááfulílé (kalé)

IIIb. Where a high monophone (prefix) is subject to
contraction with an identical-vowel low-tone
preceding, the resultant fused vowel is short,
and behaves as low,[2] even in the presence of
high-tone determinants, unless the <u>following</u>
mora is H or itself followed by H, in which case
the H (TD) (or the Hm?) reappears on its <u>own</u> mora.

Examples:

IIIb. a- -á-lek-el-el-a TD + P ⟶ alekélélá   O11

   ta- -á-mu-lek-el-el-ile TD + F ⟶ tamulekeljelé neg.06

   ta- -á-mú-lek-el-el-ile TD + F ⟶ tamúlékeleelé neg.06

BUT ta- -á-mu-lab-il-il-ile TD ⧫ F ⟶ támulabiliilé neg.06

AND ta- -á-mú-lab-il-il-ile TD + F ⟶ támúlabiliilé neg.06

---

[1]The initial vowel of nominal prefixes may also be regarded as
a high-toned monophone, thus:

    ú-mu-lim-o ⟶ umúlimo ...   work

    í-ci-bomb-el-o ⟶ ícibómbélo ...   tool

In close link or close bond with a preceding negative verb or
a preceding nominal, this initial vowel is not realised, and
its tonal influence naturally disappears also. See 3.2.3.10.

[2]This formulation is actually deduced by reference to Cl.5
Nominals, where we have the corresponding rule: "where a high
monophone is subject to contraction with an identical-vowel
low (prefix) following, the resultant fused vowel is short,
behaving as high monophone (Rule IIIa) when next element is
low, and as high followed by slip when next element is high."

Examples:

    í-i-púlà   ⟶ ípùla   (cl.5)   wax

    í-i-lobá   ⟶ ílobá   (cl.5)   clay

    í-i-lubà D ⟶ ilúbá   (cl.5)   flower

3.2.3.3. <u>Distony</u>.　After the last structural high tone in certain tenses[1], all syllables are high (but see Rule IV).　This phenomenon is here provisionally called distony.

> IVa. In tenses with distony, a high-toned object infix before a high-toned radical is itself regarded as the head of the distonic chain.

> IVb. In tenses otherwise having distony, a high-toned object infix doubles onto a low-toned radical and the distony is not represented;　or: a high object infix cannot start a distonic chain.

<u>Examples</u>:

	tu-élíi-lond-ol-ol-a	+ D → 22	twaalííílondólólé
IVa.	tu-álíi-fí-lab-il-il-a	+ D → 22	twaalíífílabílílé
IVb.	tu-álíi-fí-lond-ol-a	- D → 22	twaalíífílóndola

The special case of structural low-high-low and high-high-low subject to contraction:　Rules I and II may be applied in all cases, except when these combinations are followed by an inherent high itself the head of a distonic chain.　This only occurs in tense 42 with a high radical, since a high infix with a low radical does not start such a chain.　(Rule IVb)

---

[1] Having weak or zero bond with what follows:　note that nominals with low-toned radicals and suffixes also show distony in weak or zero bond positions:　thus -
$$\text{ú-ma-lim-o} \quad + \quad D \longrightarrow \text{umúlímó.}$$
It serves exactly the same purpose as in the verb tenses: ie. it emphasizes the word carrying it:　or, more properly, <u>minimizes the grammatical bond with the following word</u>, if any, and is therefore the form which <u>must</u> be used at the end of a sentence.　Its absence implies a strong bond with the word following, and is therefore the form used, for example, at the head of a relative clause, and before linked possessives.　See 3.2.3.10 for fuller discussion.

V.   The combination: structural 'any'-high-low before
an inherent high at the head of a diatonic chain
is represented as long high. The following
syllables are represented as slipped. [1]

Examples:

V.   á-ás-fíont-el-el-a + D ⟶ 42 ááfyóntélélá
     á-áa-bá-fíont-el-el-a + D⟶ 42 áábáfyóntelélá
But: á-áa-lond-ol-ol-a + D   ⟶ 42 áálóndólólá
     á-áa-bá-lond-ol-oel-a - D⟶ 42 áábálóndolweela

3.2.3.4. Post-radical high tone(s) After the radical in certain
tenses, all syllables are high.

Examples:

         tu-a-ssmb-il-il-a + P ⟶ 15 twaaaambílílá (néécisúngu)
         tu-a-láb-il-il-a + P   ⟶ 15 twaalábílílá (nakúmúʃí)
         tu-í-som-a + P ⟶ neg.S O1 twíísomá (kálata)

3.2.3.5. Subjunctive Pattern; high final. In tense neg.06, F
occurs 'by itself': in S O1, F occurs as part of the
subjunctive pattern S.[2] The last syllable is H, and there
is at least one low between this and the prefix, even if
this means neutralizing the inherent H of a radical. Also,
the syllable following an inherently high radical does not
accept doubling. Cf. also Rule VIIIb for raised final.

Examples:

         ta-´-tu-láb-il-ile (TD) + F ⟶ neg.06 tatúlábilíílé
         tu-pít-e + F (S)   ⟶   S O1 túpité

---

[1]Slipped highs, if not followed by low within the same word,
appear to be low in speech.

[2]S 03/04 may be broken down thus:

     tú-la-R-e F ⟶ tú-laé-R-a = tú-leé-R-a

The underlined element carries the 'central' tone. We know
that the final--e gets into the pre-radical in progressive
tenses in general from an inatpection of the verb table: the
rule is invariable. If the final -e, then presumably its
high final too, which naturally demands a 'central' low
between itself and the high prefix.

But:

VIa. In tense S 01 with subjunctive pattern having high final, the high final is replaced by post-radical high in the presence of an element between prefix and radical.

VIb. In subjunctive tense neg. S 02, zero post-radical tone is replaced by post-radical high in the presence of an object infix, and is then indistinguishable from neg. S 01 with object infix.

Examples:

VIa. mu-bá-lond-ol-oel-e   F (S)→ S 01   múbálondólweéle

VIb. tu-í-lond-ol-ol-a   0 ⟶ neg. S 02   twiilóndolola

tu-í-bá-lond-ol-oel-a   0→P → neg. S 02 twiibálondólweéle

tu-í-mu-lond-ol-oel-a   0→P → neg. S 02 twiimúlondólweéle

And:

VIIa. In S 01 all short vowel radicals are low-toned: but long vowel radicals (having a second 'tonally open' mora), and radicals with one or more extension syllables, (re)acquire a high tone by doubling, provided that Rule I is observed. (See also 3.2.3.9.)

Examples:

tu-pít-e + F (S)   ⟶   S 01   túpité

tu-bá-e + F (S)   ⟶   S 01   túbe[1] pr. túbe

tu-lub-ul-ul-e + F (S) ⟶   S 01   túlúbululé

tu-poos-e + F (S)   ⟶   S 01   (→ túpóosé) ⟶ túpóosé
                                                 pr. túpóose

---

[1] According to the general phonological rule that in nominals and verbals, final -VV is heard as short.

VIIb. In S 71 and S 71 neg. -ka- always resists
  doubling.

Examples:

bé-ka-lim-in-in-e F → P (S) → S 71 bákeliminíné

bé-í-ka-lim-in-in-e F → P (S) → neg.S 71 béékeliminíné

3.2.3.6. Raised Final In object relative tenses prefix and
   final syllable are both high. This phenomenon is here
   called 'raised final'. (In these tenses, monophone
   prefixes simply obey Rule III, and the raised final
   is unaffected.)

Examples:

tu-ka-fik-a + R → OR 71 ...(ílyo) túkáfiké ...

á-ka-fik-a + R → OR 71 ...(ílyo) akáfiké ...

But:

VIIIa. Where an inherently low radical is preceded by
   a high tense sign, and followed immediately by
   a raised final, the radical may either (a) accept
   doubling, in which case the final high is not
   represented (cf. Rule I), or (b) not accept
   doubling, in which case the final high is repre-
   sented normally (cf. Rule I). N.B. Alternative
   (b) is impossible for long-vowelled radicals
   (q.v. below 'Long vowel radicals').

Examples:

VIIIa. tu-ácí-fik-a + R → OR 31 (ilyo)(a) twáácífiká ...
              (b) twáácífiké ...

   tu-ácí-poos-a + R → OR 31 (ílyo) twáácípóósa ...
              (twáácípóósá ?)

and:

VIIIb. In tenses having raised final, the syllable

following an inherently high radical does not
accept doubling. (It will accept post-radical
high, however.)

Examples:

VIIIb. tu-léb-il-il-a + R $\longrightarrow$ OR 01 (ílyo) tulébilíla...

 tu-á-láb-il-il-ile + R $\longrightarrow$ OR 21 (ílyo) twáálébiliilé...

3.2.3.7. <u>Low Prefix (LP)</u>. Certain tenses have low prefix tone,
overriding inherent prefix tone.

IX. When the overriding low-toned prefix of certain
tenses contracts with a structural high the
resultant long vowel is represented as <u>low</u>, even
where this involves disobeying Rule II.

Examples:

IX. bá-ákuláa-pít-a (LP) $\longrightarrow$ SR 57 (abántu) baakuláapítá..

 bá-ingá-konk-el-el-a (LP) $\longrightarrow$ $\widehat{0\,71}$ bengákonkelela

 bá-í-som-a (LP) $\longrightarrow$ neg.S 02 beesóma

3.2.3.8. <u>Determinants (TD)</u>. Certain pre-initial elements may be
regarded as determining the tone of the syllable following.
They include:

     a-´-   (011, 013, 014)
     náa-´-   (positive 06)
     ta-´-   (negative 11, 13, 14, 15; 21, 23, 24;
               31, 32, 33, 34; 01, 03, 04, 05, 07)
     ta-`-   (negative 51, 57, 58; 71, 73, 74)

Prefixes with tones so determined may be regarded as
having imposed tone.

Examples:

a-´tu-lek-a   (TD) + P $\longrightarrow$ 011 atúleká ..(nga tafulilwé)

a-´tu-láb-il-il-a   (TD) + P $\longrightarrow$ 011 atúlábilíla..(nga
                                                      taciwéemé)

náa-´tu-lek-a   (TD) + P $\longrightarrow$ 05 náatúleká

náa-´tu-láb-il-il-a (TD) + P $\longrightarrow$ 05 náatúlábilíla

ta-´tu-alée-lim-a   (TD) + D $\longrightarrow$ neg.14 tatwáaléélimá

ta-`bá-a-lek-e   (TD) + P $\longrightarrow$ neg.51 tabaaleké

3.2.3.9. <u>Long vowel radicals and radical-equivalents with high</u>
<u>first mora and low second.</u>

> Xa. When a raised final or high final occurs immediately
> following a high-toned long vowel radical or radical-
> equivalent, it is not represented,[1] the long vowel
> being represented as a long high.

> Xb. When post-radical high occurs after a high-toned
> long vowel radical-equivalent, it is not repre-
> sented,[1] the long vowel being represented as a
> long high.

Examples:

tu-á-poos-a	⟶	41	twąpóósa ... (Rule I)
tu-la-túsl-il-a	⟶	02	tulatwáálíla [-kó néémfumi]
			(Rule I)

Xa.
tu-poos-e + (S) F	⟶	S 01	túpóóse
tu-imb-e/tu-ímb-e + (S) F	⟶	S 01	twímbe
tu-cí-ub-e + (S) F	⟶	S 01	túcúúbe
tu-láal-e + (S) F	⟶	S 01	túléele
tu-léet-a + R	⟶	OR 01	... (ílyo) túlééta

Xb.
nés- cí-mu-issl-il-a (TD) + P	⟶	06	náscímwíísslila
bá-is-ile + P	⟶	15	bééʃile

Obviously, when the tone-carrying radical mora is the
first, post-radical high starts at the second, and we
have, eg.

ta- tu-a-léet-e   (TD) + P ⟶ neg. 51 tatwááléété

NOTE: All other varieties of long vowel radicals and
equivalents need no special comment, but simply obey
previously stated rules.

---

[1] Again, these cases may all be regarded as simple slipped
high, heard as <u>low</u>.

3.2.3.10. Monophone prefixes must be tonally distinguished from diphones; 'imposed patterns' and 'imposed tones' are resolved into several different basic types, including:

     (a) distony;

     (b) post-radical high;

     (c) high final;

     (d) raised final;

     (e) tonal contrast;

 and (f) tonal determinants.

Of these, (a) is associated with the pairing of tenses having different emphases. This pairing has been observed (usually unclearly) in several languages previously, and sometimes tonal or 'intonation' differences have been remarked on, but the establishment of distony as a general tonal feature is new. (b) may also be associated with similar pairing.[1]

Implicit herein are semantic and grammatical associations and the clear establishment of a complete range of 'emphatic' and 'non-emphatic' pairs of tenses; more properly, these are tenses grammatically weakly-bound and strongly-bound with what follows.

At this point, I think it would be apt to give a more detailed exposé of the strong/weak bond principle: I take an extract verbatim from a hitherto unpublished original article:-

"The weak-bond/strong-bond principle is to be found in many Bantu languages, in both nominals and verbals. Typically, certain words followed by a weak bond (or zero bond, ie. end of sentence) have (if capable of displaying it) a tonal distinction, such as distony, penultimate high, or post-radical high; and certain

---

[1] As may penultimate high. (cf. Luchazi, N.R. and Angola)

words (normally having I.V.) have no I.V. when preceded
by a strong bond. In Bemba, <u>distony</u> is the sign of
weak or zero-bond with what follows, and <u>non-occurrence
of I.V.</u> of strong bond with what precedes. (Structural
tones of nominals are therefore best revealed in strong-
bond with preceding, since the absence of the I.V. (or
even of a high zero 'left behind' it) also means the
absence of its Hm effect.)[1]

---

[1]Thus:-

the shelter is old:
í-ci-sak-ut-a (+ D) ci-í-kot-é ———→ icísákútá cííkoté

an old shelter:
í-ci-sak-ut-a (- D) (í)-ci-kot-é (- I.V.)→ icísakuta-cikoté

an <u>old</u> shelter:
í-ci-sak-ut-a + D í-ci-kot-é ———→ icísákútá icíkoté

the shelter they've built:
í-ci-sak-ut-a (- D) bákuulílé ———→ icísakuta bákuulílé

building a shelter:
ú-ku-kuul-a (- D) i-ci-sak-ut-a (+ D) —→ ukúxuula icísákútá

there isn't a <u>shelter</u> which ...
(takúli) i-ci-sak-ut-a (- D) ———→ takúli icísakuta ...

there isn't a <u>shelter</u> (there's something else)
(takúli) í-ci-sak-ut-a (+ D) ———→ takúli icísákútá

Contrast:
There isn't a shelter.
There isn't a shelter which ...

both of which are:
(takúli) (í-)ci-sak-ut-a ———→ takúli cisakuta./ ...

"Two strongly bound words are treated almost as one single idea: hence there is no particular emphasis on either word. They naturally go together.

"Two weakly bound words are of course two ideas; and so emphasis appears. A word with distony in mid-sentence is 'extraordinary' because it sounds as if it is (or could be) at sentence-end: and by the same token, the word following is also 'extraordinary' because it sounds as if it shouldn't really be there. Similarly a word having I.V. after a negative verb (or after -LI or -BÁ-) is extraordinary' because in such cases 'strong bond' is much the more normal.

"Now, as we have seen,[1] some nominals and some verbs are by nature incapable of displaying distony (N ⋇ D; V ⋇ D); and some nominals by nature never have I.V. (N ⋇ I.V.). Other nominals and verbs may display distony (N + D; V + D), or not (N - D; V - D); while many nominals may have I.V. (N + I.V.), or not (N - I.V.). Using these conventions, at least the following combinations are possible in Bemba: (‖ stands for weak bond, and ⊃ for strong bond).

(1) N - D ⊃ N - I.V. contrast   (2) N + D ‖ N + I.V.
(3) V - D ⊃ N ⋇ I.V. contrast   (4) V + D ‖ N ⋇ I.V.
(5) V - D ⊃ N + I.V. contrast   (6) V + D ‖ N + I.V.
(7) neg.V }⊃ N - I.V. contrast   (8) neg.V }‖ N + I.V.
     -LI,-BÁ-   -LI,-BÁ-
(9) N ⋇ D ⊃ N - I.V. contrast (10) N ⋇ D ‖ N + I.V.
(11) V ⋇ D ‖/⊃ N + I.V. no alternative, therefore could be either
(12) V ⋇ D ‖/⊃ N ⋇ I.V. no alternative, therefore could be either
(13) N ⋇ D ‖/⊃ N ⋇ I.V. no alternative, therefore could be either

and lastly:

(14) N ⋇ D ⊃ clause (no alternative - obviously!)

---

[1] Here, in TROST, and in TTBL.

1, 3, 5, 7, 9 are 'normal' combinations' and so have no
emphasis; in 2,4,6,8,10 there is emphasis; in 11, 12,
13 there is no indication one way or the other; and in
14 there is no emphasis, and no possible alternative.

"It seems that the word normally found to carry the
emphasis in an English translation is the word that has
the 'extraordinary' sign in Bemba. (ie. D in the case
of a verb followed by weak bond, and I.V. in the case
of a nominal preceded by weak bond.) But in case (2)
above both first and second nominal carry extraordinary
signs (D because followed by weak bond, and I.V. because
preceded by weak bond); and although here it very often
seems to be the word with I.V. in Bemba that carries the
emphasis in an English translation, some occasions have
been observed when it has seemed to be that with D.

"This possibly gives a clue to the further new
principle, viz. that when both words carry an 'extra-
ordinary' sign, we have, in abstract, 'undistributed'
or 'unlocated' emphasis, which, in a given external,
physical context of situation, will locate itself on
either the first word or the second - the physical con-
text alone making the location obvious. I think this
principle may hold throughout: even in cases where only
one word carries an 'extraordinary' sign, it seems likely
that all we can finally lay down is that here we have an
'emphatic' sentence - just where the emphasis lies, in
the minds of the speakers (or in an English translation),
will be decided by the physical context. Thus, in
Bemba: "He's sitting on a chair" (no-emphasis) is
formally distinguishable from both "He's sitting on a
chair" (not kneeling on it), and "He's sitting on a chair"
(not a stool); but the latter two are not formally
distinguishable from each other: they are however always

and immediately distinguishable by context of situation.
(Whereas in eg. English all three are _formally_ distinguish-
able.)"

(The article then proceeds to discuss the I.V. in
nominals in further detail, and so is not relevant here.)

To revert: high final (c) on page /39 is found
especially in subjunctives, where it is associated with
high prefix;

(d) Raised final is found in those relative tenses
where the head-word of the relative clause is itself
the 'object' of the verb, and in which it is associated
with high prefix;

(e) Tonal contrast occurs at a phonological level,
and is a resolving feature in the analysis of tonal
behaviour of monophone prefixes;

(f) Tonal determinants are pre-initial elements which
always impose a certain tone on the following element.

(a), (b), (c) and (d) are to be clearly distinguished
one from another in tonal study; each has its own
behaviour. In distinguishing these modes of behaviour
it has been of help to consider cases (i) with polysyllabic
(extended) radicals (the longer the better!), (ii) with
monosyllabic long vowel radicals.

Some of the features here implicit or actually noted
(mostly laid down for the first time in TROST) may be of
use in the study of other Bantu languages: in languages
where any or all of (a) to (f) do not occur in precisely
these forms or contexts, they may nevertheless prove
suggestive. It may also be of value in tonal analysis
to divide tense signs into zeros, monophones, diphones
and above. Finally we should note that syllable, element
and mora are often to be distinguished.

3.2.4. The pattern of <u>relationships</u> between distony, post-radical high, high final and zero post-radical tones makes a most interesting study. We may consider this pattern under five heads at first, viz.

(1) No 'intrusive' H or h ↔ presence of intrusive H or h

    D ↔ O (all tenses having D (with H obj.inf.))

    O ↔ P (S 02 neg., S 72 neg. (with H obj.inf.))

    F ↔ P (S 01 (with H obj.inf. or with h));

        (?) neg.S 01 (having 'intrusive' -í-))

(2) Zero pre-radical ↔ ta-´ determinant + zero pre-radical

    O ↔ P (tenses 01, (03))

    P ↔ P (tense 05)

(3) Positive future tenses ↔ neg. future tenses (with ta-´ determinant + -o- pre-radical)

    O ↔ P (51, (57), 71, (73))

(4) Subj. with -í- pre-radical ↔ subj. with low prefix + -í- pre-radical

    P ↔ O (S 01 ↔ 02 neg.; S 71 ↔ 72 neg.)

(5) Odd-numbered tenses ↔ even-numbered tenses (except 06)

    O ↔ D

We can try these against one another symmetrically:-

(a) { F ↔ P High 'intruder'
    { P ↔ P High 'intruder'

(b) { O ↔ P High 'intruder' /low 'intruder' <u>plus</u> low 'intruder'
    { P ↔ O Low 'intruder' on (bare) prefix

(c) { D ↔ O High 'intruder'
    { O ↔ D (?)

N.B. In this formulation, I have called both intrusive <u>tones</u> and intrusive <u>elements</u> by the single name 'intruder'.

    On the evidence offered, we can establish "similarity of direction of shift": thus -

$O \longleftrightarrow P$ with H. obj. inf.

$D \longleftrightarrow O$ with H. obj. inf.

and $F \longleftrightarrow P$ with H. obj. inf.

also $O \longleftrightarrow P$ with ta$'$ determinant

and $P \longleftrightarrow F$ with ta$'$ determinant

So we may conclude that $F \longleftrightarrow P$ and $P \longleftrightarrow F$ <u>both</u> represent a similar "direction of shift" to that of $O \longleftrightarrow P$. The P to F, F to P relationship is therefore of a different <u>order</u> from the O to P, F to O. This is not surprising, since by changing O to P, we change as it were 'an absence of high' to 'a presence of more than one high', while in changing F to P we change 'one low - one high' to 'no lows and more than one high'. (I am speaking here in abstract - the <u>actual</u> number of syllables involved does not enter the discussion: in principle, F involves <u>one</u> high, plus <u>one</u> low between itself and prefix, while P involves any number of highs between radical and suffix.)

It is also not surprising to find that with LP (and -í-) pre-radical, $P \longleftrightarrow O$

while $O \longleftrightarrow P$ with ta-$\grave{}$ and -a- pre-radical; since LP plus -í- gives an L (H) result, while TD -$\grave{}$- plus -a- gives an L (L) result: we may regard these ($\widehat{LH}$ and $\widehat{LL}$) as having opposite 'signs' in a mathematical sense, and thus producing opposite effects.

If we then consider the O/P, P/O relationship in terms of 'signs' we get the following result:-

Pre-radical	Post-radical	
add +	change - to +	(H. obj.)
add +	change - to +	(ta$'$)
add - - (= +)	change - to +	(ta$\grave{}$ a)
add -	change + to -	(LP)

While with P/F and F/P we simply have:-

<u>Pre-radical</u>   <u>Post-radical</u>

  add +   change P to F <u>or</u> F to P

However, if we examine this last in more detail, it becomes
clear that it is not really paradoxical at all; for
P ⟶ F we add <u>H-tonal determinant</u> to pre-radical, while for
F ⟶ P we add H-<u>element</u> (-í-) or subtract H-tonal determinant
and add H-obj. inf.

     The fact that both intruders are H is not strange,
seen like this: O ⟶ P is a straight minus-to-plus
relation, while F ⟶ P is a second stage.

O with (+) pre-radical ⟶ P with (-) pre-rad. ⟶ O (the

                                        ordinary +/- relation)

F with (+) pre-radical ⟶ P with (+) pre-rad. ⟶ F (the

                                        (+/-+) relation)

A pleasant illustration is:-

S O1   Hp L   F (⌒Θ....⌐) plus -í- pre-radical gives

neg. S O1   Hp H L P (⌐íΘí⌐) plus LP gives

neg. S O2   Lp H   O (↓⌐Θ↓....-) plus H obj. gives

neg. S O2(+obj) Lp H H P (-⌐Θ⌐⋯) = (-⌐⌐Θ⌐⋯⋯)

                (radical ringed)

     I think this series makes it as clear as anything
could that tonal 'balance' each side of the radical has
to be preserved in those tenses which are themselves in
a state of 'unstable equilibrium'.

     We can detect no special feature <u>giving rise to</u> diatony.
If we compare odd and even-numbered pre-radical tense signs,
we find the 'addition' of H (in 11 and 15) changing P to D,
of HL (in 21) and of L (in 41), changing O to D, of L (O1)
changing O to D, and even of no change at all in pre-radical

(71) with corresponding D in (72).   It is fairly certain
therefore that there is no 'special feature';   but there
is as we have seen a way of causing D to 'revert' to O -
by inserting H. obj. inf.   D in even-numbered tenses is
perhaps a near-intonational characteristic - but not just
intonational, since it is so rigorously observed, and often
associated with changes of shape as well.

For example:

	pre-rad.	post-rad.		pre-rad.	post-rad.
11	L	P	+ H gives 12	LH	D
21	H	O	+ H͡L gives 22	HH͡L(L͡L?)	D
31	H	O	(no 32)		
41	H	O	+ ͡L gives 42	H͡L	D
01	Z	O	+ L gives 02.1/2	L	O/D
71	L	O	+ Z gives 72	Lɣ́	D
15	L	P	+ H gives 16	LH	D
05	Z	P	(TD) gives 06	(TD)Z	P

From p.131 to p.138, it was not possible to give meanings passim for reasons of space and layout. They are appended below, with section numbers and rule numbers.

p.131.

3.2.3.1. Rule I: they will arrive at the river

they will pass along the road

II: we have (just) arrived at the river

let us not read

we shall draw water from now on

we have (just) passed along the road

they arrived at the village

they passed along the road

p.132.

3.2.3.2.   IIIa: he will arrive tomorrow

he will send a Boma messenger

you (s.) have (just) arrived at the road

it (eg.'relish') was plentiful once

IIIb: had he stopped ...

he did not abandon him

he did not abandon you

he did not forget all about him

he did not forget all about you

p.133.

3.2.3.3.   we explained   ⎫

IVa: we forgot all about them ⎬ recently

IVb: we got them back   ⎭

p.134.

V: he (has just) sucked

he sucked them

he explained

he explained to them

3.2.3.4.   we have even learned English

we have even forgotten all about (our) home

let us not read (this) letter

3.2.3.5.   we have not forgotten

let us pass

p.135.

VIa: you should explain to them

VIb: let us not explain

let us not explain to them

let us not explain to him

VIIa. let us pass (now)

let us be

let us explain (now)

let us throw away (now)

p.136.

VIIb: let them heap soil round (the plants)

let them not heap soil round

3.2.3.6.   ... when we arrive ... (full future)

... when he arrives ... (full future)

VIIIa: ... when we arrived ... (today)

... when we threw ... (today)

p.137.

VIIIb: ... when we forget altogether ...

... when we forgot altogether ... (recently)

3.2.3.7.   IX: the people who will be passing (from now on)

they { are supposed to / ought to / should } follow

let them not read/they shouldn't read

3.2.3.8.   had we stopped ... (he would not be angry)

had we completely forgotten (it would not be good)

we have stopped

we have completely forgotten

we used not to dig

they won't stop

147c

3.2.3.9.   we have (just) thrown

we take (some) to the chief as well

Xa: let us throw / we should throw

let us dig / sing

let us peel it

let us sleep

... when we bring ...

Xb: it shut him in

they've come ...

we won't bring

3.3.   TABULATION

This section is almost entirely repeated from TTBL.

3.3.1.   The Tabulation of the Tenses

If we disregard all subject and object prefixes,
locative suffixes and the existence of high- and low-toned
radicals (all of which affect tense-signs, but only at a
phonological and tonological level), we find that formally
speaking the Bemba verb has at least 48 positive and 31
negative single-word main-sentence tenses.   (Object and
subject relative sentence and sub-relative sentence tenses
also exist, but are essentially main-sentence tenses with
regular tonal modifications.)   In order to study and
evaluate a verb of such complexity, it is necessary first
to find some method of tabulation.   There are two possible
points of departure; form, and meaning.   If we use the
latter, we arrive at a matrix involving at least the
categories of order (positive or negative), time, aspect,
mood, and emphasis.   But then we find that certain
'pigeon-holes' in the total table are filled by tense
forms that also occur elsewhere, given the right context
and the right radical.   (Radical we may define as that
element in the Bemba verb carrying that meaning which is
independent of tense-signs and prefixes and infixes.)   It
is convenient for demonstration and other purposes to
construct our tables showing these dual and triple function
forms occupying their complete range of pigeon-holes, even
though this may mean a sacrifice of formal clarity.   (It
should be remembered, however, that even such compromise
tables - in a 'mere' order-time-aspect-bond-mood matrix -
can only expose basic meanings;   the precise applications
of some of the tenses are so subtle as to defy even five-
dimensional tabulation.)

(a)

TABLE I

A Ⓧ

	1		2	3		4
anterior 10	' -sí-	-a	NONE	' -sláa-	-a	NONE
	` -la-	-a		No NEGATIVE		
	No NEGATIVE					

M

	SIMPLE				CONTINUOUS PROGRESSIVE				PERFECTIVE PERSISTIVE				INCEPTIVE & COMPLETIVE			
	strong link bond 1		weak link bond 2		strong link bond 3		weak link bond 4		strong link bond 5		weak link bond 6		strong link bond 7		weak link bond B	
untimed (a) remote 1									-a-	-a P	-ali-	-a D				
									ta-ʼ-á-	-a P		= 15				
if timed (b)	-a-	-ile P	-alí-	-ile D	-alée-	-a	-alée-	-a D								
	ta-ʼ-a-	-ile P		= 11	ta-ʼ-alée-	-a	ta-ʼ-alée-	-a D								
recent 2	-á-	-ile	r-álii-	-a	-áféé-	-a	-áféé-	-a D								
	ta-ʼ-á-	-ile	z-álii-	-a D	ta-ʼ-áféé-	-a	ta-ʼ-áféé-	-a D								
			ta-ʼ-á-	-ile D												
earlier today 3	-ácí-	-a	complex		-ácíláa-	-a	-ácíláa-	-a D								
	ta-ʼ-ácí-	-a	tnʼ--áci- -a D		ta-ʼ-ácíláa-	-a	ta-ʼ-ácíláa-	-a D								
immediate 4	-á-	-a	-áa-	-a D												
	as past, has no true negative: as future, see 51															
untimed (a) zero 0	~	-a-	1 -la-	-a									[ʼ-laá- -a (rhetorical positive)]			
	ta-ʼ-~	-a P	2 -la-	-a D									ta-ʼ-laá- -a			
				= 01												
if timed (b)					-léé-	-a	-léé-	-a D	~	-ile P	náa-ʼ-~ -a P					
					ta-ʼ-léé-	-a	ta-ʼ-léé-	-a D	ta-ʼ-~	-ile F		= 05				
					(= Ᵽ)											
immediate 5	-á-	-a	-áa-	-a D	-áláa-	-a	-áláa-	-a D					-ákuláa- -a		-ákuláa- -a D	
	or use 53		or use 54		use 51 (but see 57/8!)								ta-ʼ-alée- -a		ta-ʼ-alée- -a D	
	ta-ʼ-aá-	-e P		= 51									(= ta-ʼ-aálée- -a, cf. 53?)			
later today 6	use 03		use 04		compound		compound D									
	use 51			= 51	compound		compound D									
after today 7	-ku-	-a	-ka-	-a D	-kaláa-	-a	-kaláa-	-a D								
	ta-ʼ-aka-	-e P		= 71	ta-ʼ-akalée-	-a	ta-ʼ-akalée-	-a D								
					(= Ᵽ)											

P Ⓨ

potential or suppositional 07	①	②			3		4	
	-ingá-	-a	-ingá-	-a D	-ingáláa-	-a	-ingáláa-	-a D
	compound		compound D		compound		compound D	

H Ⓩ

hypothetical 01	a-ʼ-~ -a P		a-ʼ-lán- -a		ɓa-ʼ-láa- -a D
	compound		compound		compound D

S

	①	②		3		4	
zero 0	~	-e F		ʼ-léé-	-a	ʼ-léé-	-a D
				(= F)			
	-í-	-a P	ʼ-í- -a O	-íláa-	-a	-gíláa-	-a D
future 7	ʼ-ka-	-e P		ʼ-kalée-	-a	ʼ-kalée-	-a D
	-íka-	-a P	ʼ-íka--a O	-íkaláa-	-a	-íkaláa-	-a D

Could call ODDS simply 'bound'
and EVENS 'unbound' or 'free'

3.3.2. The semantic characteristics on which these tables are
based are as follows:

1. In each pigeon-hole, the upper member is positive and
the lower negative.

2. All on tables M and A and table P are indicatives.
(See 3.3.2.12., below)

3. All on table S and line O1 are subjunctives, those
on line O1 referring to hypothetical events.

4. All on lines 1 refer to events in remote past,
(a) being untimed, and (b) timed.   ie. if 15/16 are
used, time cannot be specified.

5. All on line 2 refer to recent events. (ie. earlier
than today, but not yet regarded as _remote._)

6. All on line 3 refer to events earlier today.

7. All on line 4 refer to events in the immediate past
(or immediate future, see below at 3.3.11.)

8. All on lines O refer to events (a) at zero time
(untimed) and (b) present (timed).

9. All on line 5 refer to events in the immediate future.

10. All on line 6 refer to events later today.

11. All on lines 7 refer to events tomorrow and onwards.

12. All on table A have no time reference of their own,
but always apply to actual events _anterior_ to some
other event.

13. All on table H refer to supposed events in the past,
or else to events supposed as consequent upon an
event itself not yet accomplished, or eg. a wish not
certain of fulfilment.

14. All on table P refer to potential events supposed in
the future, or to events that are 'supposed to occur',
or 'could' occur.

15. All in columns 1 and 2 refer to simple events.

16. All in columns 3 and 4 refer to progressive events.

17. All in columns 5 and 6 refer to events of which the effects still persist at the time of speaking.

18. All in columns 7 and 8 refer to events considered from the point of inception or completion.

19. All in odd-numbered columns throw emphasis (if any) on what follows the verb, or more precisely, are strongly bound to what follows (and formally therefore cannot stand at the end of a sentence).

20. All in even-numbered columns throw emphasis on the verb itself, or, more precisely, have only a weak-bond with what follows, (and formally therefore may stand in mid-sentence or sentence-end).

Additional:

21. Relative tenses can only be formed from odd-numbered (M) tenses, and P tenses (by a systematic alteration of tone-pattern) and negative relatives from these by insertion of infix -si- behaving tonally like ta-.

22. Rhetorical negative tenses can only be formed from M and P tenses.

23. Sub-relative tenses can only be drawn from even-numbered (M) tenses, and their negatives have pre-initial ta-.

24. S and H tenses have no special relative forms: table P tenses have object relative forms.

25. All in tables A and H can never occur as complete sentences in themselves, ie. they are always subordinate.

Notes

See 3.3.2.3

The difference between M and A and P on the one hand, and S and H on the other, is thus one of mood.   This needs no further discussion, the term mood being used in an entirely conventional sense, and subjunctive tenses in Bemba performing much the same functions as subjunctives in other languages.

See 3.3.2.5.

The distinction 'recent - remote' has hitherto[1] been formulated (if at all) as 'yesterday - before yesterday'. Very often, a 'recent' event will be discovered to have occurred yesterday, naturally enough: but the correct division is the vaguer one.   The attitude of the speaker is the deciding factor, not the mechanical division of days.

See 3.3.2.8.

The zero line containing 01/02 is really 'all-time', while that containing 05/06 is 'present'.   Just as time cannot be specified with tenses 15/16, so with 05/06 when they are being used of events earlier than today.   (If the forms 05/06 are used in their capacity as '35/36' or '45/46' we can specify time, however.)   See below at 3.7.(05/06)(e)

See 3.3.2.13,14 & 24

When followed by nga, tenses O11 and O13/O14 are the past counterparts of O71/O72 and O73/O74 preceded by nga: both the former and the latter may however be used without nga, whereupon their English meanings appear to diverge. See special note on Table 3, and examples on pp. 188/9

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[1] Cf. DC 1, DC 2

See 3.3.2.18

It would be more proper to split the inceptive and
completive aspects and use up the remaining digits 9 and 0
on another two columns.   But it was felt better to leave
them both under 7 and 8 for convenience of printing.

Also there is in Central Bemba a tense-sign -CÍ-,
occurring only with the defective verb -LI and carrying
the force of 'still'. (eg. tucílí: ... we are still ...)
This might be given yet another column, since it represents
an aspect not mentioned hitherto.   A previous observer
has recorded -ścí- as its past tense with -LI, and tenses
-cílíí- -a   and -ścílíí - -a as present and past with
normal verbs (eg. tucílííbómbá, we are still working);
but these latter three tenses are never heard outside
River Luapula Bemba, in which area there may well be yet
more aspects to be ta_bulated. (The present tabulation
is for by far the most important dialect, and only for that
dialect.)   In any event, the -cílíí- -a and -ścílíí- -a
forms are better regarded as compounds, using -LI as
'auxiliary tense-sign' followed by main verb stem in -a;
in exactly the same way as -Y- (go) and -IS- (come) are
used as 'auxiliary tense-signs' plus main verb stem in -a;
in all cases, the vowel before the main verb stem is
lengthened.

See 3.32.21

There are two types of positive relative tense:
(a) that used when the head word of the clause is the
     subject of the clause: this type is formally
     characterized by low prefix tone,
(b) that used when the head word of the clause is the
     object of the clause: this type is formally charac-
     terized by high prefix tone and a final vowel in
     harmony with the prefix. (See 3.2.3.6 and 7)

3.3.3.   Having performed our sortings by meanings, we find
that, as it happens, many formal features have been
associated with the lines and columns of the tables as
set up, which provide us with ample confirmation of the
proposed divisions.   Some of the more striking are:

1.   Every pigeon-hole on table M has a lower member
with pre-initial ta-.   Other tables have no ta-
tenses.

2.   ta- with following high tone occurs on lines 0, 1,
2, 3, 4.   (See table 1 for all structural tones.)

3.   ta- with following low tone occurs on lines 5 and
7 (line 6 may be formally ignored as containing
nothing but duplicates).

4a.   Upper and lower members on lines 1, 2, 3 are both
tonally and phonally similar.

b.   Except one (06), those on the zero lines are
phonally, but not tonally comparable.

c.   Those on lines 5 and 7 are neither tonally nor
phonally comparable.

5.   Tenses only appearing in odd-numbered columns never
occur at sentence-end (a purely formal characteristic,
with semantic background noted at 3.3.2.19.)

6a.   All tenses in columns 3, 4, 7, 8 on a line having
a tense with final -e or -ile, themselves have a
pre-radical containing -lee- .

b.   All tenses in columns 3, 4, 7, 8 on a line containing
only tenses with final -a, themselves have a pre-
radical with -laa.

c.   All tenses in columns 3, 4, 7, 8 have final -a.

7.   In every even-numbered pigeon-hole in table M, except
06 (which has a pre-prefixal nés- ´, and post-radical
high), there is at least one tense with distony (+).

8. Even-numbered tenses on lines 0, 1, 2, 3, 4 not
    having pre-initials, have one more mora in the pre-
    radical than do their odd-numbered counterparts.

9. All on lines 1 have low -a- in pre-radical.

10. All on lines 2,3,4 and those on 5 without ta- have
    high -a- in pre-radical.

11. All on line 3 have -scí- in pre-radical.

12. All on lines 0 have pre-radicals -la-, -laa-, -lee-
    (= -lae-), or no pre-radical.

13. All on lines 7 have -Ka- .

14. Those on lines 5 and 7 with ta- have low -a- in
    pre-radical and either -e final, or -lee- in pre-
    radical in accordance with 6a. above.

15. Post-radical -ile only occurs on lines 0, 1 and 2.

16. Post-radical -e is restricted to ta- tenses in table
    M and to those not having -í- in pre-radical in
    table S.

17. The even-numbered lower member tenses on lines 0
    and 7 of table S have low prefix. 18.(We cannot
    finally determine the basic prefix tone of odd-
    numbered lower members of lines 0 and 7 (S) but
    nothing in the tonal rules precludes low prefix.)

19. All other tenses in table S have high prefix.

20. Except for S 02, tenses in table S have high final
    or post-radical high.   (In tenses in columns 3 and 4,
    the high final or post-radical high turns up in the
    pre-radical -leǵ- or -laǵ- : cf. point 6 above.)

21. Lower members on lines 01 and 07 are compound tenses,
    those of line 01 being formed with either -BÚL- or
    -KÁsn- but those on line 07 only with -KÁsn-.

22. Tenses on line 01 have pre-prefixal a-´.

23. Tenses on line 07 have pre-radical -íngé- .

24. Tenses on line 10 have -sí- in pre-radical.

25. Tenses on line 10 have no single-word lower members.

26. Odd-numbered tenses with post-radical high or final high tones have no corresponding even-numbered form with similar tense-signs plus distony.

27. Distony aside, there is tonal polarity between pre- and post-radical tense-signs, except in the cases pre-radical -ka- and -la- .

28. There are two more sets of tenses with tense-signs identical with those in odd-numbered columns in M and P, but with different tone-patterns; the corresponding lower members are tenses which have infix -sí-. (Otherwise same tense-signs, same tones.)

29. There is a set of tenses with tense-signs identical with those in even-numbered columns in M and P, but which may have different tone-patterns: the corresponding lower member has pre-prefixal ta-.

30. There is a set of tenses with tense-signs and tones identical with those in table M and P, with pre-prefixal ta- .

3.3.4.   There are also some general principles covering the whole table and serving further to link meaning and form:

(i)   Tenses with post-radical high tone have monophone or zero pre-radical tense-signs except the full futures (71 neg;; S 71 pos. and neg.), and are odd-numbered except for 06.

(ii)(a)   Tenses with zero post-radical tone are odd (ie. emphatic) except for S 02, 72.

(b) All that are odd (non-emphatic) have a corres-
ponding even (emphatic) member with distony. (S 02
and 72 have corresponding odds with post- radical
high.)

(c) All that have diphone (or more) pre-radical tense-
signs have the same pre-radical tense-signs in odd
and even.

(d) All that have monophone (or less) pre-radical
tense-signs have different pre-radical signs in odd
and even.

(e) Where there is no formal distinction between odd
and even, the tense has either post-radical high
or high final.

3.3.5.   The only points on which meaning can be regarded as
giving a different picture from form are these:

(i)   Formally, line 6 is not needed at all.

(ii)   Line 4 appears to be anomalous - tense 41 apparently
has the same ta- member as a tense on one of the
zero lines, yet its high -a- pre-radical tense-sign
would line very well with tense 53 (but see below
at 3.3.11.)

(iii) Tense 05 (since it has a final -ile) might be
assumed to be related to 11 and 21 - this would
necessitate exchanging the positions of the pairs
01/02 and 05/06.

(iv)   Tenses 07 and 57/58 might have been placed some-
where in columns 3 and 4, though there is nowhere
very convenient to put them.   In form, negative
57/58 would be regular as negative 53/54: in
meaning this is very rarely true.

         With these reservations, it would have been possible
to sort the tenses into some similar arrangement of lines
and columns using only formal data.   The exact order of

the lines could not have been completely determined: that
of the pairs of columns is in any case immaterial.

3.3.6.1.   The correspondence between certain broad categories
of meaning and form is striking.   For instance, points
3.3.3.1. and 3.3.3.3. now show that all indicative past
negatives have ta- determining high following, and all
futures have ta- with low following;   3.3.3.(17), 21 and
25 show that non-indicative tenses form negatives without
ta-:   timed subjunctives in -í- (table 8) and tenses in
some sense 'outside time' by compounds or not at all
(lines 01, 07 and 10).   3.3.3.30 and 28 show that all
indicative tenses except A's form rhetorical negatives by
simply prefixing ta- to the normal positives, with
no change in tone-pattern;   and all odd-numbered indicatives
except A's have relative forms bearing a systematic tonal
relationship to the main-sentence forms.   (Subjunctives
have neither of these characteristics.)

3.3.6.2.   Past negatives are identical in tones and phones with
their corresponding positives;   zero negatives are identical
in phones but not in tones;   future negatives are different
in tones and phones.

3.3.6.3.   Positive and negative progressives and inceptives
with -LEE- pre-radical have corresponding simples or per-
fectives on the same line with final -e or -ile.   Positive
and negative progressives, inceptives, and completives with
-las- pre-radical have corresponding simples or perfectives
on the same line with final -s.   It appears that the
'finals' have 'got into' the pre-radical: the new suffix
vowel of such tenses is (quite naturally) the 'neutral' -s.
If this is accepted we can formulate simple rules covering
the formation of negatives.

(a) M Past negatives: pre-initial ta-´, tense-sign and
final as positive odds.

(b) M Zero negatives: pre-initial ta-´, tense-sign and
final as positive odds, but post-radical high in place
of zero post-radical tones and high final in place of
post-radical high. (O → P and P → F).

(c) M Future negatives: pre-initial ta-`, pre-tense-sign
-a-, tense-sign as positive odd, final -e, post-radical
high (P).

(d) S Negatives: pre-tense-sign -í-, tense-sign as positive
odd, final -a: zero post-radical tones in place of
post-radical high, post-radical high in place of high
final. (P → O : F → P)

(Note the symmetry between (b) and (d) as to tonal differ-
ences and between (c) and (d) as to signs. Where -x- is
the tense-sign, positive future has -x- -a (O), negative
-a-x- -e (P): positive subjunctive has -x- -e (F),
negative -í-x- -a (P)).

3.3.7.   We can define a tense in Bemba as a verb form having
(a) prefix, (b) tense-sign (which may be zero), (c) radical,
(d) final (which may only very rarely be zero): hence
for the verb -TI, tenses such as 01/02, 71, S 01, 011, etc.
very rarely (or never?) occur, because those tenses can
have no (d) when the radical is simply -TI: but tenses
such as 03, 73, S 03, 13, 57 etc. are common because they
can have (d) (albeit in a pre-radical position!)

3.3.8.   For Bemba, zero tenses have zero, -la- or +la-
derivative pre-radical tense-signs (-la- + -a → -laa- :
-la + -c → -lee-); and -a, -e, or -ile finals: these
five may be regarded as basic, as they are in many other
Bantu languages.   'Genuine' final -a occurs in 01/02,
41/42, 71/72, 15/16, 071, 011, 101, and 31;   and all other

-a tenses have merely refilled their suffix position with the central vowel.   Even the náa- of 06 is probably ná- + -a ⟶ naa- (-naà- is a common enough Bantu past tense-sign).

-e characterises subjunctives and negative futures. -ile characterizes pasts.   -la- (-lá-) and -li-(-lí-) are even-numbered tense formatives.   The remaining signs are -a- (remote past), -á- (recent, immediate), -cí- (or -ácí-) (earlier today), -ka- (future), and -ku- (or -áku- + F) (inceptive).

3.3.9.   Positive indicative tenses weakly bound with any following word (throwing emphasis on the verb) have, with one exception (06), the device of distony.   Even those negatives and subjunctives (Col.4) which are capable of taking distony do so.   This pairing of tenses has been noted in other Bantu languages (though usually only in those cases where the members of pairs are phonally different: where differences in tones have been noticed, they have often been put down as 'intonation' differences). The clear case offered by Bemba, where every 'non-emphatic' tense has an 'emphatic' tense to correspond, should prove useful in the evaluation of these other cases hitherto not satisfactorily accounted for.[1]

There is at least one case I have recorded of a tense-group having three varieties of sentence-bonding, eg.

(a) hʃilééciiaa múnó-lucéélo yóo.

(b) nʃíleecííaa múnó-lucéélo, ndééisa̧-ciisa icúngúló.

(c) nʃiléécííaa múnó-lucéélo, pántu nʃíkwéeté nʃita.

(a) means "I'm not ironing this morning" (and that's flat!)
(b) means "I'm not ironing this morning, I'm going to iron this evening."
(c) means "I'm not ironing this morning, because I haven't time."

---

[1] The dichotomy may manifest itself as 'inclusive ⇆ exclusive' rather than 'non-emphatic ⇆ emphatic': but behind both there lies (at a more truly grammatical level) 'strongly-bound/weakly-bound'. The author has personally observed similar 'pairing' with either distony or post-radical high in Lozi, N.R.Tonga, Shona and even in Nyanja/Mang'anja.

Further:-

    (a) nʃiléefwaaya kwiisa

    (b) nʃileefwááya ukwíísá leeló, nkeesa mailo

(a) I don't want to come.
(b) I don't want to come today, I'll come tomorrow.

And: (a) nʃiléefwaaya filyó.

     (b) nʃileefwááya ífilyó ...

(a) I don't want food.
(b) I don't want food .... (implying I want drink, or
                                something else.)

This is most provoking: it demands full investi-
gation, but I fear this is as far as my records go. It
appears that the (a) forms above are in fact a different
tense, in that they are structurally n-si-lée-R-a (over
against (b) and (c) which are n-sí-leé-R-a ± D).

I also find I have an instance of one particular
radical providing a triple distinction in a positive tense,
viz.

    aléckááná   he will refuse

    alóckááná   he will refuse - ('I know he will,'
                                    or 'he always does'.)

    aléckaana   he is refusing (intonational ?)

I am told that -KÁan- is the only radical that can
do this, but I find it a bit difficult to believe.

3.3.10.   Progressive and inceptive and completive tenses seem
to be historically later than simple or persisting - the
evidence of point 3.3.3.6. suggests this. By the same
token, distony seems later than post-radical high or high
final: this conclusion is further supported by points
3.3.3.26. and 27.   Zero tenses 01/02, 05 and S 01 must be
among the earliest of all: -scí- -a must be very late,
since, of those that could have, it alone has no even-
numbered mate.   (This last is confirmed geographically:
- scí- -a is spreading from the west; there are still
some areas that do not use it.)

3.3.11.   It is likely that there was formerly no distinction
whatever between immediate past and immediate future (this
is still true in many other Bantu languages, I believe):
there is sometimes still no formal distinction in Bemba
as far as simple events are concerned (41/42 appears again
at 51/52).   For example, na-áá-is-a + D → naaísá 'I
have just come' can also mean 'I am just about to come':
na-á-temp-a úku-imba → naatámpa úkwimba means 'I am about
to begin singing'.   Furthermore, as we have seen, negative
51 is a perfectly regular negative of 41, assuming 41 is
being used as a future tense: and the tense normally cited
as the negative of 41/42 (past), ie. neg 05, is not their
true negative, since it does not involve 'immediacy'. We
may assume that there may have been a 43/44 identical with
53/54, and that they were progressive only.   Now, however,
53/54 cannot be used as 'immediate past progressive' and
are taking over the duties of 41/42 as future simple: so
it becomes necessary to have two separate lines 4 and 5.

3.3.12.   The existence among the even-numbered tenses of sub-
types having separate functions is of interest (eg. 22 and 02);
one difference kaxkng between 22.1 and 22.2 occurs in
hypothetical sentences when 22.1 is used for a hypothetical
event in the recent past (which may be yesterday = mailo)
and 22.2 for one in the 'near' future (which may be
tomorrow = mailo).   These sub-types are not sufficiently
different in functions to warrant a completely new column:
but they do warrant an extra reference number.   I think
these are cases where the shading of 'tone' into 'into-
nation' may have to be considered.

3.4.   <u>Radicals and the Selection of Tenses</u>

There are some tense-signs which occur with identical form in more than one division of the tabulation: as we saw in 1.4.4.c., these provide us with a clue enabling us to divide radicals into two main types; or, more properly, because radicals are of two main types, certain tense-signs vary in meaning according to the radical with which they are used.

3.4.1.   For example, one type of radical uses the 03/04 forms in their 'present progressive' sense, while another type uses the same <u>forms</u> in a 'simple event later today' sense; these latter have been allocated their appropriate pigeon-hole at 61/62.   These two types of radical are here and elsewhere called type B and type A respectively. (for examples, see 'Key to Table 3, below.)

3.4.2.   Type A radicals are those expressing an instantaneous action or event (eg. 'smash'), while type B express an action or event capable of taking some time to occur (eg. 'read').   Hence type A only uses the 03/04 (present pro-gressive) forms when a <u>series</u> of actions or events is involved ('I am smashing bottles').   A <u>single</u> type A action or event, being instantaneous, is always <u>either</u> past <u>or</u> future at the time one speaks of it, and so 41/42 are used.

3.4.3.   Type A <u>seems</u> to subdivide into radicals for which tenses 05/06 are used for events or acts which have been completed, but which have persisting effects, and radicals for which 05/06 are used for acts which are apparently <u>still going on</u> (not in the sense that the effects persist).   This is really due to translation breakdown, and in fact meanings

can always be found for radicals of the latter type to bring
them into line with the former; but in, say, English, we
cannot incorporate such artificial-sounding meanings in
natural sentences.   A typical case is that of -SEND- ,
usually translated as 'carry', which gives rise to the
following: one asks, "What are they doing?" (N.B. using
03 of -CÍT-, do) and the reply is, "Náabásendá (06) ínkuni",
where the English has to be "they <u>are carrying</u> wood".
The solution is that -SEND- does not mean 'carry' but
'lift-to-carry'; they lifted the wood some time ago
within 'this zero', and the effects of their having lifted
still persist.

3.4.4.   Another (more valid) mode of sub-dividing type A
already foreshadowed is into <u>action</u> and <u>event</u> radicals:
certain of the latter might be called <u>state</u> radicals, from
the fact that 15/16 are used with such radicals to describe
permanent states; (it should be noted also that these
types normally take no object and can be separated out
on this ground as well: they may be described as 'neutral');
the remainder will use 15/16 to cover irreversible <u>acts</u> or
will not take kindly to 15/16 at all.   They will, however,
use 01/02 for habitual actions, whereas the state radicals
will naturally tend to avoid 01/02.

3.5.   <u>Time Units</u>

        In the tables, time has been divided in terms of
'remote, recent, earlier today, now or zero, later today,
tomorrow and onwards'.   In fact, these categories are in
a sense simplifications.

3.5.1.   First, it must be noted that, if we think in terms
of weeks, then 'last week' will use 'recent' tenses, and
'the week-before-last' will use 'remote' tenses.
Similarly with months and years as our time units.

3.5.2.   Again, the extended 'now' may cover the present five
minutes ('I am writing a letter'), five days('We are
building a house'), or five years ('I am working for
Bwana Smith').

3.5.3.   Similarly, a persistive event of sufficient importance
will also cause a reassessment of what is 'zero'.   For
example, if A has moved to a new village, or gone to the
line of rail, he may treat events that have occurred since
('within') the move as zero-time events.   The event of
moving has created a larger 'now', though other events
not directly connected with the move may themselves be
allocated tenses working outwards from a more 'normal'
(restricted) zero.   X meets Y and says, "Where is your
bicycle?"   Y replies, "Náabééba", 'Someone has stolen it',
using a tense (O6) which most often refers to 'a zero
extending to earlier today, effects persisting till now';
but he may easily be referring in this case to a point in
time several weeks back: the event is of such importance
that it extends the 'zero' backwards in time and the man
therefore uses tense O6 (rather than 16, which we might
have expected if we had not observed the extensibility of
'zero', both for progressives (obvious enough) and
persistives (not so obvious)).

3.5.4.   A further important factor affecting choice of tenses
is the presence or absence of a 'timing' word or phrase
in the sentence.   For example, even though such radicals
as -FW- (die) and -PY- (burn) are by their nature 'persistive'
in meaning, they nevertheless behave like any other radicals
in using 15/16 of past events only if no specific time is
mentioned.   If a time is mentioned, they use 11/12 for

fully past events, even though the effects obviously
persist.   Timing is in fact irrelevant, hence impossible,
in the case of 15/16;   the event is past, and persistive -
irrevocable: but the siting of an event in the time-
stream implies other 'times' in which the situation was
different or will be different, in contrast to which the
speaker is focusing attention on a particular time, at
which an event occurred, whether persistive in character
or not.

3.5.5.   Thus the Bemba tenses fit to a pattern 'evoked'
by the importance of the event and the total meaning of
the word in its particular linguistic and physical
context;   this pattern may be formalized into the general
pattern of time reference and aspect shown in the tables.

3.6.   The method is self-confirmatory: a comparison of
paragraphs 3.3.2. and 3.3.3. is convincing.   Previous
assessments of the Bemba verb failed because data were
incorrect and/or wrongly interpreted: a tabular repre-
sentation of this type shows up such faults as internal
contradictions (ie. self-contradictions within the frame-
work of the table), and, equally important, shows up its
own faults by not agreeing with the facts as they come
in, so that it can by degrees be made more accurate.

FOOTNOTE TO SECTION

The systematic tabulation here outlined has proved
of value in simplifying field research: for instance,
the attack on verbal auxiliaries is made much easier;
since there are in Bemba some fifteen auxiliaries, each
capable of occurring in some or all of the single-word
tenses, the saving in time and headaches effected by
this technique is considerable.   The pattern of the
relationship between auxiliary, main verb, and total
'meaning' is immediately made cle_ar in a table having
this framework:

TABLE FOR AUXILIARY -xyz-

| | | main-verb tense ——→ | | | | |
		o1	o2	o3	o4	&c.
auxiliary tense	o1	simple habit (strong link)	simple habit (weak link)	' always ' continuous (strong link)	' always ' continuous (weak link)	/bond
	o2	Nil	Nil	Nil	Nil	
	o3	series habit (strong link)	series habit (weak link)	' on and off ' continuous (strong link)	' on and off ' continuous (weak link)	/bond
	o4	certain to . . . (o3/o1)	certain to . . . (o3/o2)	Nil	Nil	
	&c.					

Notes: This table is not intended to represent the
behaviour of any existing Bemba auxiliary and meanings
quoted do not actually apply to any one existing aux-
iliary: they merely serve to illustrate the use of
this type of table.   The observer will of course invent
his generalized 'meaning' terminology to suit himself
and the language under investigation.   It must be
realized that it is normally unnecessary to construct
all columns and lines of the table, as it quickly
becomes apparent which auxiliary and main-verb tense
types 'chime' together.   But such a table is invaluable
as a 'checker' (to make sure that all possible forms are
recorded, and that meanings are confirmed as fresh material
comes in), as an 'analyser' (to discover the character-
istic effects of the auxiliary), and as a permanent
synoptic record.   The same structural technique can
be applied to a series of record cards.

It is possible for the investigator using this
type of tabular representation to become aware of the
meanings of such tenses while remaining unable to
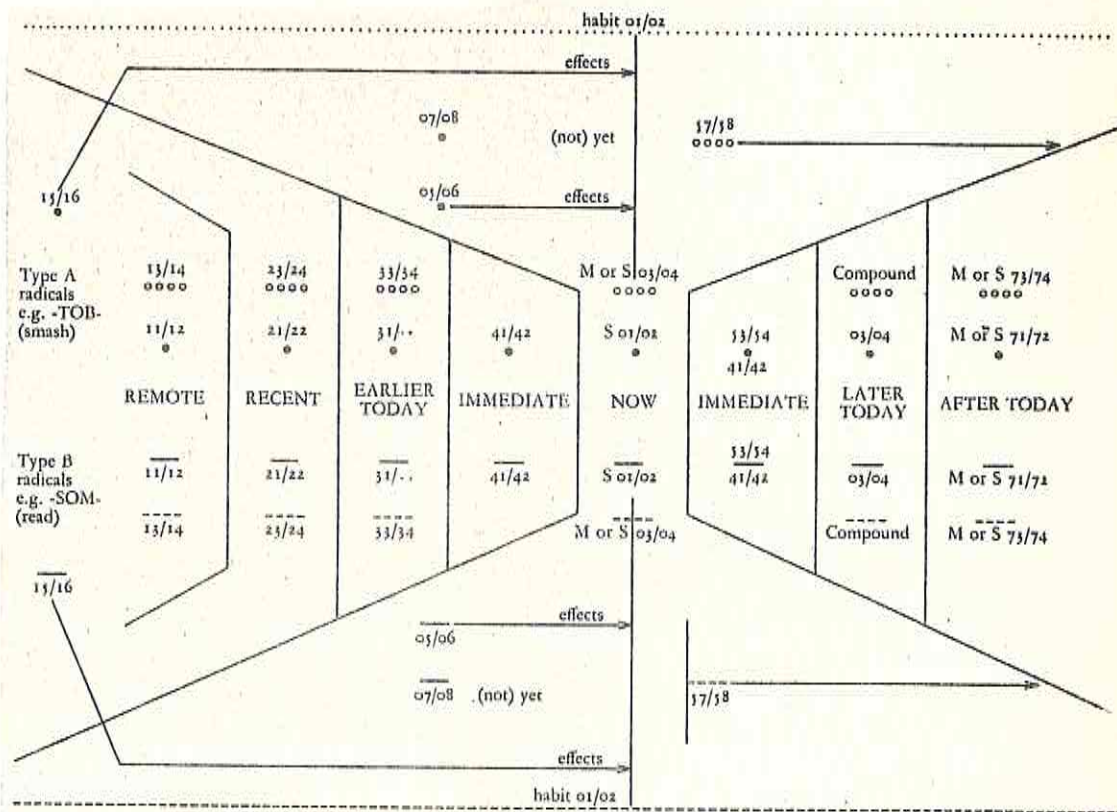translate them adequately into his own language.

habit 01/02

....

effects →

07/08
○

(not) yet

17/58
○○○○ →

15/16
○

05/06
○

effects →

	REMOTE	RECENT	EARLIER TODAY	IMMEDIATE	NOW	IMMEDIATE	LATER TODAY	AFTER TODAY
Type A radicals e.g. -TOB- (smash)	13/14 ○○○○	23/24 ○○○○	33/34 ○○○○		M or S 03/04 ○○○○		Compound ○○○○	M or S 73/74 ○○○○
	11/12 ○	21/22 ○	31/·· ○	41/42 ○	S 01/02 ○	53/54 41/42 ○	03/04 ○	M or S 71/72 ○
Type B radicals e.g. -SOM- (read)	11/12 —	21/22 —	31/·· —	41/42 —	S 01/02 —	53/54 41/42 —	03/04 —	M or S 71/72 —
	13/14 - - - -	23/24 - - - -	33/34 - - - -		M or S 03/04		Compound - - - -	M or S 73/74 —

15/16 —

effects →
05/06

07/08 (not) yet

17/58 →

effects →

habit 01/02

TABLE 3

Notes on Table 3

(1) KEY: Type A radicals (a)   ●   instantaneous event or action.
         (b)   ○○○   series of such events.

     Type B radicals (a)   - - -   event or action in progress.
          (b)   ——   such event regarded as a whole (effectively equivalent to a single event).

e.g. A (a) naatóba icílolá (41) I have broken the mirror.
      (b) ndéétoba amábótóló (series 03) I am breaking bottles.
   B (a) ndéésoma icítábó (03) I am reading a book.
      (b) naasóma icítábó (41) I have read the book.

(2) OMISSIONS: Tenses 'outside time'.

(a) The hypothetical and suppositional tenses 011, 013/014, 071/072, 073/074, are best thought of as being 'outside time'. Compare M 01/02, which are 'in time' in that they refer to any and all time: e.g. kalé tulasoma (02) ámabúúku—we have been (in the habit of) reading for a long time—whereas 011 and 013/014 are 'outside time' in that they refer to events that are merely *supposed* in the past. They belong to the 'past impossible' when followed by nga, and to any time when *not* followed by nga: in both cases they take on the time-reference of the tense used in the main clause. For example, after hypothetical past tenses in the sub-clause, the main clause (introduced by nga) always carries the *past* tense applicable to the time and aspect that the event *would* have had if it had occurred; and instead of main clause *future* tenses, 41/42 are used for 'later today' and 22 (with a changed tone-pattern) for 'tomorrow and onwards'.

(b) The (future) suppositional tenses 071/072, 073/074 have also been omitted. They also may be regarded as timeless, though they normally refer to an event which, if it were to occur at all, would be in the future. (*Any* future, not necessarily the *full* future.)

(c) The narrative tenses 101 and 103 occur only in narrative: often, therefore, they appear in a context of 'pastness', but even if the narrator is telling a fanciful narrative of the future, he will make use of these tenses, normally in speaking of an event anterior to another. They have been omitted from Table 3 since they too are outside time and would fit in anywhere.

3.7.   Illustrations of Tenses

Since this thesis is not concerned with syntactical
behaviour as such, my examples and their explanations
will be of the most direct and simple: nevertheless,
they should serve to illustrate every tense number: of
object relative and subject-relative tenses I shall only
select a few, since it is clearly pointless to go all
through the table three times.   The examples that follow
are chosen not to illustrate morphological, tonological
or phonological points (those have been sufficiently
dealt with elsewhere); but principally to show forth in
summary the semantic grounds on which the tense-tables
were constructed.   There will however be a sufficiency
of morphophonological data for discriminatory purposes:
and so as to make the 'task' of comparison between tables
and examples all the easier, I shall cite examples in
order, from left to right and top to bottom of the tables.

101 (a) tuʃífíka-fyé (101a), néémfula yááísá (42)
     (b) báátiilé balahómbá .... (101b)

101. 'Anterior, simple'

(a) We had only just arrived, when it started to rain.
(72)ᴼᴿ We had recently arrived, and the rain came on.
- or any other versions giving this immediately anterior
sense.   This tense is very often found in association
with the 'enclitic' -fye (only, just, merely).   By
nature, it can only appear in narrative, and always refers
to an event or action completed just before the action or
event of the verb that follows.   Also, by nature, it can
never appear in a negative form; indeed, 101a is already
exactly O1 SR Negative in shape!

(b) They had no sooner done the job ... (101b)
differs from 101a only in that it always seems to follow
an auxiliary such as -LI, -TI/-TIIL-, or -Y-. Like 101a
it has LP, and this in itself suggests a 'link-back' to
a preceding word (cf. subject relatives?)[1] Identical
with 02 positive except that it has LP, which would
otherwise suggest SR pattern, itself nowhere else
occurring in even-numbered tenses.

103/4. (a) ..sémóné (41) ubóóé ésnukula (42) sékóʃé (41)
noomílílό ʃóóéé (42): aʃíléalyé (104), apó
peené ʃétéʃé (41) (ukúti) tabúwéemé (neg.06).

103/104. 'Anterior, continuous'

(a) He saw (41/42 being used as narrative 'immediate'
tense) a mushroom, plucked it, and lit a fire and
cooked it: he had scarcely begun eating it when he
noticed it was bad/at the very moment when he began
to eat it ...

Exactly as 101, but referring to an event or action
'taking time' to occur: in this instance, 'eating'.
Contrast 'arrival' in previous example.

11/12 (a) umúʃí wáapíílé (11) pólicibílí: kénʃi leeló
abéntú bóónsé bálééteeta (03) írílú: abaanákáʃí
nabó bálééaenda (03) ícaaní.

(b) mú 47 twaaténéné (11) íritéméne ifíkalambá:
mú 48 mwéené fyáalícéépélé (12).

---

[1] I have one example of a very nice semantic distinction
which may involve this tense (but I cannot be sure that it
is not a special form of (02) - indeed, I cannot really be
sure that 101b. is not a special form of (02), though it
seems highly unlikely):-
ndééfwaaya M, icó alapeepa (02?)(LP)
I'm looking for M, because he smokes. (Implication, 'and
can therefore give me tobacco, or advice about cigarettes,
or a match')

Ndééfwaaya M, icó ápéépa (01, OR)
I'm looking for M-because-he-smokes. (Implication, 'and
he shouldn't, so I'm going to arrest him!)

11. <u>Full remote past, simple, timed</u>

(a) The village burnt down on Tuesday: so today all the
   men are cutting wall-poles, and the women are
   carrying (fetching) grass.

This contrasts with 16 below.   The village got burnt
down on a particular day, and what's more, we are
rebuilding it.   The event is 'timed', which is quite
sufficient to preclude the use of 15/16:   as soon as
you 'set' an event in the time stream, you can no longer
consider its effects;   you are considering its <u>pastness</u>.
(Note báleésenda ... (03) they are carrying, <u>in a series</u>
<u>of carryings</u>:   ordinarily, they are carrying (they have
lifted-to-carry and the effects, ie. the carrying, still
persist) would be náabásendá (06).)

(b) In 47 we cut big ash-gardens: (but) in <u>48</u> they
   were small.

11 must be followed by another 'item' (an object, adverb,
attached clause, or adverb/object type of word).   But
12 need not be.   11 is strongly bound with what follows;
12 weakly bound - 12 therefore is the tense used at
sentence-end as here.   In other respects (time reference
and aspect) the two tenses are identical.   The negative
of 12 is indistinguishable from that of 11, so we can
only say 11 = 12 (or 12 = 11).

13/14 (a) buʃé, íiyo áalwéélé (11 OR) áaléélíla? (14)
           Áawe mukwáí, táaléélíla (neg.14) kwéená, nómbá
           áaléetétáfye (13), nóokulyá táaléelyá (neg.13)
           bwíínó.

(b) Buʃé, ílyo mwéslí (11 OR of -LI) kwííʃukúlu
mwesléélima-nʃi? (13) Tweléélima (13) amééké.
Buʃé yéeléékúlá (13) bwíino? Awííi, teyéelééfúndá
(neg.14). Kalundwé naó ʃelééfula (13) nga twasímba
(41) nnatutumuʃi, nga twaaímba (41) lubemba
téelééfula (neg.13) ééané.

13/14. <u>Remote past, continuous, 'progressive'</u>

(a) When he was ill, did he cry? (ie. used he to cry?)
No, he didn't actually <u>cry</u>, he just moaned (he was
moaning) and he didn't eat much (he wasn't eating
well).

N.B. When he was ill is <u>not</u> 13/14, but 11: -LUel- means
'become ill', so ílyo ʃelwéélé must be used — when he had
become ill, ie. was ill: his state had changed, and he
was in that changed state. (Several European languages
would use a progressive or imperfect tense here, but the
Bemba (and Bantu generally) are clear about changes of
state).

The verbs ʃeléélílé (14), téeléélílé (neg.14),
ʃeléétété (14), téeléelyá (neg.14) all carry the force
of 'was ...ing': a continuous event or series of
similar events in the (OR) remote past.

(b) When you were at school, what did you grow
(cultivate)? We grew (lit. were hoeing) kaffir-
corn. Did it grow well? No, it didn't grow well
(was not thriving). And the cassava was plentiful
if we planted (dug) <u>natutumuʃi</u>, but if we planted
(dug) <u>lubemba</u> it wasn't really successful (it was
not being plentiful).

Mwéslí is the remote past of -LI, be, and corresponds
exactly with the 'was', 'war', 'était' type in European
languages.

mwealéélima (13), tweeléélima (13), yéaléekúlá (13)
teyéaléefúndá (neg.14), éaléefula (13), téaléefula (neg.13)
all imply continuing actions, series of actions, or
repeated changes of states in the remote past.
éaléefula is closely linked with the nga (if) clause that
follows: it was plentiful provided that we ... (otherwise
not). téaléefula is closely linked with séené: it wasn't
really a success: it wasn't very plentiful. No.
Note: twasímba (41) is an example of the use of an
'immediate past' in narrative; once the time-reference
is established by some other verb, a single action is
described in 41/42. "If we planted" (on every single
occasion that we planted).

15/16 (a) bu∫é báákulá (15) amáyandá ayésumá múliulyá-mu∫í?
           Ee, báákulá (15) ayésumá, nómbá teyéakwéété
           (neg.15) fimbúúsu.
      (b) ímbwa ∫áakwááté (15) ímicílá
      (c) kúlí umúntú úmó kúmweesú úwaalwéélé (SR 11)
           ífíbá∫í, nómbá áalípólá: (16) élyo nangu
           áapólá (42), talééenda (neg.03) bwiino
           múnó-n∫íku kábílí.
      (d) ulyá mú∫í wáalípyá (16): mwáa-/páa∫áálá (15)
           fye íŋandá ∫íbílí.

15/16 'Remote past, untimed, perfective (persistive)'

(a) Have they built (did they build) good houses in that
    village? Yes, they did/have, but they haven't got
    privies.

Refers to an event or action which occurred in the remote
past, but of which the effects still persist. They built
the houses long ago, and the houses are still there. They
started not having privies long ago (when the houses were
first built), and they still haven't got any. The
philosophical implications of this pair of tenses are very

deep indeed: if we wanted to translate into Bemba I AM
of Jehovah, or 'God is', or Descartes' "cogito, ergo sum",
or "I think, therefore I exist", or even quite simply,
"I exist" - we find there is no way of doing it: because
15/16 always have a 'beginning' in time, O1/O2 are "I am
when I am" type tenses, and ndi is a zero perfect like O5
(and also has no even-numbered counterpart, so could
never stand on its own anyway!)   The Bemba tense system
does not permit of philosophical inexactitudes, or
meaningless statements: A.J.Ayer would have liked it.
(See 'The Problem of Knowledge', p.99)

(b) Dogs have tails.
(as a characteristic)   they got them a long time ago,
and the effect of 'having got' still persists.

(c) There is a certain person in our village who had
     leprosy, but now he's got better: but even though
     he's better, he still doesn't walk properly (even)
     these days.
(d) That village burnt down: there were/are only two
     houses left in it/there.

Note the number of different ways in which 15/16 have to
be translated into English: and yet it is easy to see
that they all have the same idea of 'something that got
that way long ago, and still is so'.   The most startling
type, to an English speaker, is perhaps:

     kwáabá imítundu yéélobá ítátú: umó úntu weebuuté,
     úmbí naó úntu waafiité, élyo úmubíle naó úntu
     waaketíké.

"There are three kinds of clay - one white, one black,
and one red."

21/22 (a) mailo ílyo twéésíle (21 OR) kúnníká kúkwiimba
imfukó twaaípeeye (21) ʃítátú. Buʃé mwaalííya-
imba (22.1)naʃímbi? Yóo, twaalííbwééla (22.2).
Mwaafíkile (21) ínʃita-nʃí? Twaaséngile-fyé (21)
ínkoko ʃíléeíngílá (04): ńga íwe waalóbéla (21)
íaabi líńgá? Naalóbéle ilíkalambá lítátú. Ńga
imyóónó mwaalíífúmyá (22.2)? Yóo, tatwááfúmiʃé
(neg. 22).

22.1 (a) waalííkakula (22) ifípé ílyo wáásséndeemé (21 OR)?
Yóo nʃéékákwíílé (neg. 22)

22.1/2 (b) ubúlalo-bwáápá Lupósóóʃí néabúsendwá (06)
kuku kúmúkúkú, mótoka ááceelwa (42) ukwíísá.
Afiká-po (011) lilyá umúkúkú uʃílaaísa (OR neg.07)
nga twaalííya (22.1) kúNdólé mailó.

21. <u>'Recent past, simple'</u>

"Yesterday when we went to the river-plain to dig
moles, we killed three." "Did you dig any more?"
"No, we came back." "What time did you arrive (back)?"
"We found the chickens going in (to roost): what about
you? how many fish did you catch?" "I caught three
big ones."   "And did you take out (the fish from)
the fish traps?"   "No, we didn't (take them out)."

All these events occurred in the recent past (in this case,
yesterday: though the same tense can refer to several
months or even years ago, <u>provided</u> that the speaker
regards the events in that period as "recent" compared
with some other events he regards as "remote").   Note the
use of (22) mwaalííyaaimba: "did you in fact gó on to dig...?"

22.1.   "Did you (in fact) tie up the loads (luggage)
when you went to bed?"   "No, I did not (tie)."

Emphatic use of the even-numbered tense in mid-sentence.
"**Did** you...?"

22.1 & 2 in hypothetical sentences.

"The Lupososhi bridge has been carried away by the
flood, and the bus was late getting there.   If it
had arrived before the flood (when the flood had
not yet come) we would have gone to Ndola yesterday.
(Alt. twaliíyá . . . tomorrow)

23/24:

(a)   mailo mwaaléecítá-nʃi (23)?   Twaaléélima (23) impúta
ʃáácílémbá.   Nga BaaSafééli bééná bááléécítá-nʃi (23)?
Líntu twéáléélimá (OR 23)?   Bááléébyáála (23) cilémbá
bééná.

23/24   '<u>Recent past, continuous, 'progressive'</u>

"What were you doing yesterday?"   "We were digging
bean-beds (beds for the beans)."   "(What about Safeli?)
And what was Safeli doing?"   "While we were digging?
He was planting beans."

These tenses are exactly as 13/14, except that they refer
to the recent past.

31 (a)   naacífíka (31) úlucéélo, élyo naasánga (41) ímfumu
íléenwá (03) úbwaalwá, baakabíló bééná báácíbá (31)
pácilyé báácíláspútúla (33) imílandú.

32.neg/31 (b):   táácíláálílá (neg.32) - áácíláaángála-fyé (31)

'324'/32 neg. (c):   waacíbá (31) núúpoká (06) baacíí
kúlibaanoko?   Yóo, nʃaacípoká (neg.32) pántu
nʃaacíbápo (neg.31) ílyo bééle.

(d)   pé-fye ílyo mútápá (01 R) ámenʃí kúcíʃíma, nínʃí
nímwéébá (06), ńga kánʃi úmbí úwaacímwééba (31 p SR)
leeló nááni (31)?

31. '<u>Earlier today, simple event</u>'

(a) I arrived this morning, and (then) I found the
     chief drinking beer; (but) the councillors were
     in the court, deciding cases.

32 neg/31 <u>Earlier today, continuous event</u>

(b) He wasn't crying, he was just playing.

     <u>Earlier today, simple event, emphasis on verb</u>

(c) "Did you get the keys from your mother?" "No, I
     didn't get them, because I wasn't there when she
     went."

(d) "Always when you draw water from the well, I have
     told you (to do so); so who was it that told you
     (to do it) today?"

The most notable point about the 'earlier today' tenses
is that there is (in Central Bemba) <u>no</u> tense 32. If we
wish to express the idea of '32' (ie. simple event earlier
today, no longer mattering, but with emphasis on the verb)
we have to use tense 31 of -BÁ- (be) plus 06 of the main
verb (or more often, especially in the east, tense 21 of
-LI (be) plus 06 of the main verb).   Here we have
"wascíbá múúpoks ..."

     In other respects, 31 and 33/34 are just like 11 or
21 and 13/14 or 23/24.   It must always be remembered
that the simple event referred to by 31 no longer matters
or persists: if it did, we would use 05 or 06.

     In (d) for example, he uses 33 SR verbo-pronominal form
because he knows there was no such person: had he used
úumwéébele 05 SR verbo-pronominal form, he would have
been asking for genuine information.

41/42:

(a) nèémona (41) icuúní péciʃiki

(b) mwaabiíka (41) píi icísóte?

(c) " ... béésénga (41) impélémbé ʃítátú; béécítá (41)
icoongó na ʃó ʃáábutuka (42), ʃááyá (42): élyo
báaʃikónka (41) pénnumá, béémóné (41) náaʃíiminíné (06)
pécuúlú ... "

(d) nga mwaatóbá (42) úmutóndó bálééisaafulwá (03 -I3-)

(e) nga mwaatóba (41) úmutóndó twéékuláatépíla (57)
múnaupa.

41   Simple event in immediate past/future: simple event
     in narrative

(a) I (can) see a bird on a tree stump.

(b) Where have you put (your) hat?

"I see" (-MÓN- means something rather like 'get to
a state of having seen', so that an immediate past tense
is entirely appropriate as a translation of the English
"I (can) see" - if we wished to say, "I am looking at..."
we would use 03/04 of -MÓN-).

"Where have you put ..."   The 'putting' is con-
sidered by the speaker as immediately past: if the
English meaning to be conveyed were "Where did you put..."
(and clearly it still matters, and the effects of the
putting persist) then Bemba would have "Mubiíkilé píi..."
05.

A very common use of 42 as an immediate future is
in the phrase "Néésiáá, mukwái.." "I'm coming" (I am
about to do as you ask) - rather like the English
"Coming sir" or the German Kellner's "Komme gleich."
(See below at 51 for negative.)

41/42 Narrative use

(c) "They found three roan: they made a noise and the roan
     ran away: then they followed them behind, (and) saw
     (that) they were standing on an anthill."

Each new simple event in a narrative has 41 or 42.

(Perfective events have 05/06, progressive 03/04.)

Use after nga (if)

(d) If you <u>break</u> the pot they will be angry (weak bond)

(e) If you break the pot we shall (have to) use a calabash
     for drawing water. (Strong bond)

These examples clearly demonstrate the difference in
emphasis; Dr.Guthrie thought that the difference between
41 and 42 after nga was one of 'likeliness' and 'unlikeliness',
but this was probably due to faulty tone-production, diatony
in 42 being over-emphasized, and hence interpreted by the
informant as second degree tone-range.

01/02:

(a) úkutémé kútúpééla (01) imílímó íìngí: atúléálima-fyé
     (013) kalundwé ééka, úlusúbá nga tuangála-fyé (01).
     Yóo muné, atúkááns-léatémé (neg.014) nga teekúti túmoné
     (9 01) úkwáákufúmíná úbwaalwá élyo nga tatwáángálá
     (neg.02) nábwíínó yóo!

01/02 neg.:

(b) abántú balyá béléépaya (02) íssbi nanómbá? Yóo, muné,
     nómbá tucúúla (01) áéaná kúmunéní pántu tabéépaya (neg.01)
     íssbi abạlééipaya (p.SR 13)

(c) ímbwa ʃílyá (01) iinámá

(d) buʃé mulapeepa? (02) Ee tupeepa (01) sekelééti

(e) bámó bálalyá (02) ínsoka

01 <u>Simple event. habitual - zero time</u>

(a) "Lopping (trees) gives us a lot of work: if we just
dug cassavas (alone), we could just have a good time
(play around) all day."   "No (mate), if we didn't lop
(trees) we wouldn't have anything to get our beer from,
and then we wouldn't (be able to) have a proper good
time anyway."

(b) "Do those people still catch (kill) fish?""No (mate),
nowadays we're hard up (suffer) for relish because they
don't catch fish (those who used to catch (them)).

These tenses express habitual action, or, more precisely,
a simple event at zero time (as in English: "I smoke").

02 carries special emphasis in mid-sentence, as usual
with even-numbered tenses.   "Do they in fact still catch.."
"tucúúla..."   This is the present state of affairs: the
speaker is regarding the absence of fish to eat as a
permanency, rather than as a passing phase.   "They don't
catch them, so we don't get them to eat" - the implication
is that the erstwhile fishermen have definitely stopped,
or have been stopped, for good.

(c) Dogs eat meat.
They eat it as a habit, ie. when they eat, one of the things
they eat is meat.

(d) Do you smoke? Yes, we smoke cigarettes.
That is, we smoke <u>cigarettes</u>, not a pipe.   Contrast:

(e) Some people actually <u>eat</u> snakes.
There is no other difference in meaning between these two
tenses: this applies throughout the whole range of odd-even
pairs;   the difference is <u>always and only</u> one of strength
of bond (= emphasis) and <u>never</u> of aspect or time.

03/04:

(a) tulééya (03) kúmiʃí

(b) bálééimba kalundwé (03)

(c) béléésenda íʹcaaní (03)

(d) nálímó báléeláálá (04)(being used as 62)

Continuous 'progressive' event, zero time (ie. infinitely extended or narrowed 'present')

(a) We are going to the village.

(b) They are digging cassava.

The actions are taking some time to perform.

(c) They are carrying grass.

In a series of journeys.

(d) Perhaps they'll stay the night (will sleep).

'They are sleeping' is of course náabáláálá: they got to sleep some time ago and the effect still persists.

These tenses are used to refer to events taking place 'now' - ie. in the extended 'now' of 'these days' or in the narrower 'now' of today, or 'right now': or in narrative in the same way, with their 'now' transplanted to the 'now' of the narrative itself. As explained in 3.5 they may refer either to an event which takes considerable time to occur (I am writing a book), or to a series of events, each taking negligible time to occur, but which in series do take a long time (I am swatting flies).

05/06:

(a) buʃé núulwáálá (06)? Yóo, muné, nnakílé-fye (05).
Utéméné (05) ífilú fíngá? Mukwái nʃitéméné-fye
(05 rhet.neg) ífíngí!

(b) ... nanómbá tamúnáyile' (neg.06), iné nááfwa kúnsálá.
Yóo, tsatá, ínkuni tapáli, nʃiteebelé (neg.05) leeló.

(c) óo kánʃi náabáya (06)? - iná ndééti (03 of -TI) nélímó nàabáaendámá (06).

(d) N̂mukwááta (06) inkóndé? Yóo mukwái - tatúkwééte (neg.06)

(e) tufikílé (05) uʃucéélo.

(f) buʃé nàabáríké (06)? Tanàabáríké (rhet.neg.06)?!

05/06 "Present Perfect"

Event having occurred within the speaker's 'now', of which the effects still persist.

(a) "Are you ill?" "No (mate), I'm just tired." "How many wall-poles have you cut?" "Haven't I cut a lot!"

Note that verbs like -LÚal- do not mean 'be ill', but 'become ill': hence the use of 05 here - "Have you become ill?"

"Nʃitéméné-fye iʃiingí !" Negative 05 here used rhetorically.[1]
(Normal negative would be nʃitémené.)

(b) "... and you still haven't stirred (ie. made)(the porridge) - I'm dying (have died/am about to die) of hunger." "No, sorry dear (lit.father), there isn't any firewood, I haven't collected (any) today."

(c) "Oh, so they've gone? I thought perhaps they were asleep."

Note that here again -SENDam- means "get into a reclining position", hence "become asleep", not "be asleep". Therefore "they are asleep" is nàabáaendámá. (ndééti is 03 of -TI and would translate literally as "I am thinking" - but the Englishman changes to a past tense once he has found that his thought was incorrect - "I thought".)

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[1]
Bemba uses rhetorical negatives (as very powerful positives) on all manner of occasions: in fact their accurate use is one of the marks of a true Bemba, as opposed to a lingua-franca speaker of the language.

(d) "Have you got any bananas?"   "No (I'm afraid)[1] we
    haven't."

Nasmúkwáátá means something like, "Have you got into a
state of possessing?"   In fact -KÚst- is very much like
the English 'get': nasmúkwáátá - have you got?

(e) We arrived (this) morning - implication: 'and we're
still here' (in this zero-time!)

Rhetorical negative 06

(f) "Have they come?"   "Have they not! (I'll say they
    have!")

Rhetorical negatives may be regarded as being formed
directly from the normal positive tenses on Table M and
P by the simple addition of the pre-initial (non-determinant)
ta-.   There is no disturbance of the positive tone-
pattern.

The normal negative of náabáfiká would be tabáfíkilé
(neg. 06)   Other rhetorical negatives can be made in the
same way (simply adding ta- to positive), for the entire
M table.

The only special case of a rhetorical positive
recorded is in tense 07:

07: niwé-waafundaula ámeen∫í kúci∫íma.   Leeló kúci∫íma
    ndaayá-ko?!

    "You (it is you who) muddied the water at the well."
    "Me? Have I been there yet?!" (But have I been to the
    well yet?) (In other words, I haven't been there yet!)

This can be regarded as being formed from the negative
by the simple removal of the pre-initial ta- with no
alteration in tone-pattern.   (The reverse process to that
of forming rhetorical negatives.)   This tense has so far

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[1] English equivalent of the 'mukwái', which is more literally
'sir/madam'.

been noted only in rhetorical positive sentences: if one
considers its meaning, this is not surprising.   The
negative form has been well known ever since Bemba[1]
was first investigated:

07 neg.

> mwáápwa? Áàwǒ, mukwéí, tatúlaapwá (07 neg.)
>
> "Have you finished?"   "No, we haven't finished yet."

51/52:

(a)   naatémpa (51) úkwimbá, niné ...

(b)   léétooní ínkasu ʃóńnsé kúnó! Buʃé tawwíiʃíibé (neg.05)
     ukúti ukwímba irílindí múmúsébó clíbi? Á! Ifwé
     tatwaaloké (neg.52), néénkasu ʃiiné tatwaaléété
     (neg.52)!

(c)   Buʃé baateaté balééya (61) kúcibólyé icúngúlo? Yóo,
     tabasyé-ko (neg.51) leeló.

Immediate future, simple

(a)   "I am about to start singing..."
already covered at 41/42 above.   But note that a perfectly
regular negative of -á- -a as a future is `-áá- -e,
which is precisely what we find in:

(b)   "Bring all (your) hoes here! Do you not know that
     digging holes in the road is a bad thing?"   "A! We
     won't stop, and we won't bring the (very) hoes (either)."
This is an immediate future negative: a refusal of an
immediate command.   But (neg.51/52) can also appear as a
general denial of a single simple event later today, as in:

(c)   "Is Daddy going to the cibolya this evening? (ie.
     does he intend to?)"   "No, he's not going (there)
     today."

---

[1]And almost all other Bantu languages? The "not yet" tense
seems to have captured every investigator's imagination -
but not its positive form!!

(Had the speaker used tabálééyá-ko (neg. 04) it would
have given more the flavour of 'he won't be going'.)

53/54:

(a) kwáá∫óóla (41) ∫áaní pákuti túfiké (S 02)?
    Twaaláaníína-fyé (53) ulúpílí ulú, élyo lwáápwa (42)
    tuábuké (S 02) naakámánó, twáénde-kó-fya (S 01)
    pánnóonó nín∫i twaafíká (42) nookó-kwiiné. Áâ,
    kán∫i twaaláófíká (54).

(b) naaláálifa (53) béélu umúkú úmó ...

(c) élyo twáéfúmína (OR 11) kúbwaalwá twaaíaaa-ikala-pó-
    fya (41) pánnóonó báálááluká (53) nóókulúká.

(d) naalí (21 of -LI) púlwééndó naalééya (23) kwááKasonda;
    cílyé naénda-kó-fya pánnóonó néénoínga yáátulíka! (42)
    Naaíkala (42) naaláámándá (53): élyo kábílí nááima
    (42) naalééyé (54).

Immediate future continuous: or 'soon', simple: or 'the next thing' in narrative.

N.B. In form alone, this pair of tenses would be 'immediate
future continuous', and in fact are often used as such.
But, as noted in 3.3.11., the immediate future form-meaning
nexus has been distorted because 41/42 are indistinguishable
in shape from 51/52. This has led to an increasing use
of 53/54 to do duty for 51/52 (while 51/52 have become more
and more limited in use); 57/58 have been developed as
'inceptive progressive' and have 'stolen' the negative
proper to 53/54. (ta-' -aalée- -a). 53/54, finding
themselves thus bereft, have adopted neg. 51/52 to supply
the need. So now we have (comparatively rare) 51/52, with
normal negative 51/52; 53/54 doing duty for both their
'normal' meaning and that of 51/52, with a negative of
51/52 shape; and 57/58 doing the real job that ought to
be done by 53/54, with a negative of 53/54 shape.

In other words: 57/58 have taken over 53/54's meaning and negative, while 53/54 have taken over 51/52's meaning and negative, and 51/52 themselves have almost atrophied through identity of shape with 41/42.

The present day result of this movement is that 53/54 sometimes carry the meaning 'proper to' their form (immediate continuous), but sometimes carry that of 51/52 (immediate simple) often pushed a little forward into the future - that is to say, often not so immediate as 51/52, naatámpe úkwimbá, but certainly nothing like so distant as 61/62, tulééya kúcíbólyá icúngúló.[1]

(a) "How far is it (remains) before (in order that) we get (there)(arrive)?" "We are about to (be) climb(ing) this hill, then when it is finished we cross a little river, and then we go on a bit and we're there (at the very place)." "Oh, well in that case we'll soon be there."[2]

Twééláánííne (53) is immediate future progressive - the action of climbing will take some time.

Twéélééfíká (54) is immediate future simple, but not so immediate or 'instantaneous-act'-like as twaafíká (52) would have been: the business of arrival is perhps here conceived of as taking some little time ('from here out')?

(b) "I shall ring (my) bell once ..."

This is also immediate future simple - "I am about to ..." (Immediately after finishing the sentence, the speaker rang his bell.)

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[1] 61/62 is really a 'meaning' line only, because these tenses are really 'extended-now' tenses and can be regarded as genuinely 03/04 in meaning as well as shape. Just as in English, and many other language families, "we are going to the cibolya this evening" - 'present' form and 'future' meaning.

[2] Note the use of S 01 in this example, discussed below on p.192.

(c) "When we came away from the beer(-drink), we had
only been sitting (at home) a little while, when
he began to vomit."

Here is the narrative usage of 53/54 as 'the next thing
was...' "When he started to ..." - a process taking some
time.

(d) "I was on a journey, going to Kasonde; I had only
gone a little way when (my) bicycle got a puncture.
I sat down and mended it: then I got on/set off
again, and went on."

Again the narrative use: the mending and the going on
both took time, and were consequent upon sitting down
and setting off respectively.

57/58:

(a) nóskuláéssambilila (57) icíbemba nkasuké (S 71)
ńkacííʃibíʃé (S 72).

(b) twéskuléetápé (57) émeenʃí mpéka ákasúbá káwe (S 01)
(contrast tuléetápé (03)..)

(c) tatwasléebómbá (neg. 57) mpéka neecúngúló pántu
ʃín ajlkú kúléebá (03) ímfula.

(d) muóskulásbómbá (57) nsílímó nyú mpéka ákasúbá káwe
(S 01)

Inceptive, continuous

These tenses always imply "starting a continuous
action or series of actions now, and continuing - from
now onwards."

(a) "I shall go on learning Bemba until in the end I
know it (properly)."

Process starting now, and continuing.

(b) "We shall start drawing water now and continue
until sunset."

(c) "We shall not continue working until evening because these days there is rain."

(d) "You will work at this job until sunset (today)."

The implication is of a series of inceptions:
Mwáákuláatapila múmátepé ayá, with no time limit stated, would imply 'starting from now, whenever you draw water from now on, you will use debbies': again a series of events, considered from the standpoint of their inception.

61/62: LAter today, simple

These are identical in shape with O3/O4. But O3/O4 refer to process-events or a series of instantaneous events in progress in the 'extended now', while 61/62 refer to a simple event which will occur later today. If we wish to give the idea of process-events which will be in progress later today, we have to use a compound tense consisting of 61/62 of -Y- or -IS- added directly on to the radical + -A of the 'main' verb (eg. tulééisáasbómbá - we shall be working). To express a 'series of instantaneous events later today' we have to relinquish single-word tenses altogether.

There is thus no simple 63/64 pair: we either have to use a compound tense, or a complex.   Thus:

(1) -LIM- dig, takes time: therefore tuléélímá is O4, we are digging (now, or these days, etc.)

(2) -FIK- arrive, is instantaneous: therefore tulééríká is 62, we shall arrive (later today).

(3) -BÓMB- work, takes time: therefore to achieve a 64 type meaning we have to use tulééisáasbómbá, we shall be working (later today).

71/72:

(a) buʃé máíló tukatampa (71) ukwímba ici∫íma? Yóo,
   tatwaakatampé (neg. 72) pántu kapitáwa taakeesé
   (neg. 71) namaílo liiné.

(b) nálímó tabaakafiké-ko (neg. 71).   Yóo, abééna-Mpangó
   bákééssabáaendela (71) ifípé.   Óóo, lyéená bákáríká (72).

(c) mulééti (03 of -TI) bákáfika (71) mailo?

Full future, simple

Straightforward: time reference tomorrow and onward,
simple event.

(a) "Shall we start digging the well tomorrow?" "No,
   we shan't (start), because the foremen won't come
   tomorrow either."

Here, 'start' and 'come' are simple events in the future
of tomorrow: the same tenses serve for any time sub-
sequent to tomorrow.

(b) "Perhaps they won't get there." "Oh, I don't know,
   Mpange's people are going to carry their things for
   them."   "Oh, in that case they will get there."

(c) "Do you think they'll arrive tomorrow?"
If the speakers had been talking about 'us' instead of
'them', there would have been no audible distinction
between 71 'tukafika' and 72 'tukafika', since diatony
consists in a raising of all tones after the last
structural high: as there is no structural high in
tukafika, the difference cannot be made; but 71/72 are
just as clearly distinguishable under the right tonal
conditions as, say, 05 and 06, which are different in
phones as well as tones.

73/74:

(a) uyú mulungu ulééisa (SR 03) tukaláabyáála (73)
ínyanjé mpáka túkapwé (8 71) impútá ǥónsó, élyo
túkaléélima (8 73) emásaká.

(b) nʃaakaléélanda (neg.73) nankwé nga naayá-ko (41) –
pántu báalípáténá (16) necibúeá wándí.

Full future, continuous or progressive

Same time reference as 71/72, but continuous event.

(a) "This coming month we shall be planting maize until
we finish all the beds, then we shall dig[1] the
kaffir-corn."

Here, 'planting' takes time.

(b) "I shall not (be) speaking to him if I do go,
because he[2] dislikes my friend."

'Speaking', 'holding converse', takes time.

071/072:

(a) éboengéésa (p.071: stable verbo-pronominal form)

(b) ʃímwiingélééta tíi!

(c) nga mwaayá kútáúni, mwiingáyaanʃitila-kó úmunání

(d) ndééfwaaya umíntú úwiingéé ʃ íba (verbo-pronominal
form) ukúfimba icílóʃí

(e) nga twiingáya kúÑdólá, kúti twaayáebákúmányá (42 of -Y-)

Future potential/suppositional tenses

These tenses have many apparently different uses:
but the basic idea is one of 'supposition' or 'potentiality'.

(a) "Those are the people who should come/are supposed to
come/could come."

"... who potentially could (and should) come ..."

---

[1] Note use of 8 73, discussed below at p. 195

[2] -PATen-...na... takes plural subject: literally "They
have become hateful to one another with my friend".
Normal construction with verbs such as -KÚMan- meet, etc.

(b) "You might bring some tea!"

"... you <u>could</u> (and should) bring some tea!" (Ironic :
you could bring some tea, I suppose.)

(c) "If you go to town, would you mind bringing some
meat for me?"

"... could you possibly buy...?" "Does this potentiality
exist?"

(d) "I want a man who could (ie. who will turn out to be
able to) do Barotse thatching."

"...who will have the potential of thatching."

(e) "If we were to go to Ndola, we could/should meet them."

"... suppose that we were to go..." "... if the poten-
tiality of our going existed..."

    The last example is one of as yet unfulfilled but
still potentially fulfillable condition; by contrast
with the past hypothetical tenses O11, O13/O14, which
express unfulfilled and now unfulfillable conditions.

O11:

(a) njíʃíbá (O11) ukúti ŋúúisá (O6) nga nínjisá-kupóʃá (O6),
nómbá nʃáácííʃíbá (neg. 32).

(b) úmunénsu abúlóó-isa (neg. 612) na mótoka nga tatwáásiléko
(neg. 1ꬵ): kábilí nangu atúya-kô (O11), nga tatwáárikíló
(neg. 11) bwangu.

(c) amúbá (O11) kúnó, nga cáalíwéémé (16)

(d) amúbá (O11) kúnó, nga náscíwaamá (O6)

(e) amúfiká (O11) luceélócééló, nga twaayá (42) icúngúló

(f) amúfiká (O11) lucééló cééló, nga twaalííyó (22.2)
máíló (or twaalííya (22.1) mailo)

(g) múkeekalé (S 71) máíló, atúlandá (O11)

Past hypothetical tenses (i) simple event

This refers to a hypothetical event in the past,
ie. it poses a condition now impossible of fulfillment.
(Its negative poses a condition now impossible of non-
fulfillment.)

(a) "Had I known that you had (already) come, I would
     have come and greeted you, but I didn't know."

(b) "Had our friend not come with (his) car, we would
     not have (been able to go)(gone there): what is
     more, even if we had gone, we wouldn't have got
     there quickly."

(c) "Had you been there, it would have been nice."
(Long ago)

(d) "If you were here, it would be nice."
(Now.)

(e) "Had you arrived early this morning, we could have
     gone this evening."
(Later today).

(f) "Had you arrived early in the morning, we could
     have gone tomorrow/yesterday."

(g) "You ought to stay tomorrow, and then we could talk."
(So that it would be possible for us to talk.)

Note that the negatives of all past hypothetical tenses
are co_mpounds with -BÚL- (lack) or -KÁan- (refuse, deny).
eg. here, abúlá-isa, had he not come (pr.abúláάisa,
according to the normal rule whereby a final vowel before
a bared radical is always long. cf. tulééya-bómbá, prl
tulééyaabómbá; or mwaaiʃilé-lima, pr. mwaaiʃíléé-lima etc.)

As far as my examples go, there is no odd-even
distinction in tense O11 positive: the post-radical
syllables seem to be always high (P), even where the
radical itself is low, so that distony (D) cannot occur.

013/014:

(a) ímfula síkáánéeláapéntá (neg.014) nga twaaláayéngéla-mó,
(53), Atúláayéngéla (013) múmfula nga twaaketé (42))

(b) atúkááns-lástémá (neg.014), nga cáslíwéémá...(16))

Past hypothetical, continuous

(a) "If it had not been raining so hard (or, if it were
not raining so hard now), we could have been playing
outside."

Normal English would have 'we could have gone and played
outside' - implication now, immediately after my statement.);

"If we were to be playing in the rain, we'd get cold."
(Normal English would have, "Yes, but even then, we'd get
cold" - ie. 'even if the rain had been raining less hard,
as you suggested, we'd still have got cold if we'd gone
and played in it.')

The use of 53 after nga shows that the rain is raining
hard now, and that the hypothetical process-event of
playing would have been in the immediate future.   The
use of 52 in the reply again indicates an immediate
future, but this time referring to an 'instantaneous'
change of state.

(b) "If we did not (have to)(be) lop(ping)(trees), it
would be nice."

neg.014 here implies 'always', as can be seen from the
use of 16 in the nga-clause. (It would have become good
at some unspecified time in the long-ago, and would
still be so - if we were not in the habit of lopping.)

SUBJUNCTIVES

These have also been called "Dependent Tenses" by
Dr. Guthrie, but I greatly prefer the 'old-fashioned' term
'subjunctive': (a) because by association, it calls to
mind most of the usual functions of these tenses in Bemba —
as it happens, they are used for very much the same pur-
poses as subjunctives in Latin and many other Indo-European
languages — and (b) because they are much more often
quite 'independent' than they are 'dependent'.

They are used to exhort, command (gently); after
verbs of wanting, allowing, doubting, denying; after
words expressing such ideas as 'in order that', 'so that',
'lest'; as follow-up tenses in an as yet unfulfilled
future narrative.

S 01:

(a) ...beeítíínyé (neg. S 02), bétalé (S 01) baíleké (S 01)
  ílabé (S 02), elyo límbí-fye báííkáté (S 01)

  bwangubwéngu báíteeté (S 01) noómweelé pánnkóʃí

(b) múmwéébe (S 01) aléété (S 01) úlukááu kwííbélé
  eecíté (Neg. S 01) bulamí yóo

(c) nga mwaamóna íʃílu lyéáíéé, mwiibútúké (neg. S 02):
  kóbílí mwiisúmina (neg. S 01) ukúti séngilé (S 01)
  mwíísukúlu.

(d) tulééfwaaya tutámpé (S 01) ukúeenda injélwé nómbe.
  Yóo, kano mátalé (S 01) múpwe (S 01) ukúsenda indééké,
  elyo nínʃí múye (S 01) mwímbe (S 01) umúfúlé...

(e) "Let them (ie. the cooks) not make it (the chicken)
  frightened; let them first allow it to forget, and
  only then at another time let them catch it quickly
  and cut its throat with a knife.

bá-`-í- -zí- tííny - a P→ beeítíínyé. Neg. S 02 used
here as a negative imperative — in fact there is no other
way of producing a negative imperative in Bemba.

NOTE: -TÁL- means something like 'to first': ie. to perform the action expressed by the next verb 'first'. The phrase more literally means "let them -TÁL- let them allow it (the chicken)(that) it may forget." The -LÁB- 'depends on' the -LEK- which in turn 'depends on' the -TÁL- .

Tones: ˈbé- -zí- -iket- -e (F → P in presence of H element before radical) → báíkété, let them catch it: S O1 used as a positive imperative for an action to be carried out later (a true positive imperative demands that the action should be carried out immediately).

bé-zí-teet-e (F → P) → bátteeté, let them cut it: same again.

(b) "Tell him to bring (that he should bring)(his) hoe to the garden and not be lazy."

múmwéébe: S O1 used as an imperative (as above). "You may/should tell him."

alééte: S O1 "(that) he should bring."

á-í-cít-a → eecítá neg.S O1 "(that) he should not act/do."

(c) "If you see the madman coming (lit. has come), do not run away; and (furthermore) do not allow him to come into the school."

mwiibútúké: neg.S O2, do not run.

mwiisúmina: neg.S O1, do not agree.

á-íngil-e F → ééngilé S O1 (that) he may/should enter.

(d) "We want to begin carrying the bricks now." "No, except you first finish carrying the mortar, and then go and dig the foundations."

tútámpe: S 01, (that) we should begin ('dependent on' tulééfwaaya)

mútalé: S 01, you should first (see above)(Following kano,
unless, except.)

múpwe: S 01, you should finish ('dependent on' mútalé)

múye: S 01, you should go (following nín∫í; though nín∫í
douid be omitted.)

mwímbe: S 01, you should dig.

S 03/04:

(a) beeláanwá (neg. S 03) moen∫í múliuyú-múmóné, múlí
(01 of -LI) ínsokéndé í∫iingí; nga tabákwéété (neg. 05)
kwéékutápé kúmbí, báleetápé (S 03) umú-mwiiné, élyo
báleekáfyé (S 03) yáleebíléúké (S 04) in∫íté iíkalambé.

(a) "They should not be drinking water from this river,
there is a lot of bilharzia[1] in it: if they haven't
got anywhere else to get (draw) water from, let them
draw (it) from here (this very place), and then they
should heat (it)(so that) it may be boiling for a
long time."

báleetápé: S 03, let them be drawing/they may/should be
drawing (series)

báleekáfyé: S 03, let them be heating/they may/should be
heating (series)

yáleebíléúká: S 04, (that) it be boiling (emphatic use of
even-numbered tense in mid-sentence.)

S 71/72:

(a) pákuti múkapólé (S 71) bwangu, máleenwá (S 03)
úmutí uyú: kábilí nga mwaayé (41) kúmweenú,
mwííkabómbá (neg. S 71) milímo pámwee∫í úmó úútúntúlú -
múkalééikala (S 73) fyé múmú∫í.

(b) uyú-mulungu ulééisa (SR 03) tukaleké (S 71) ukúlimba
kalundwé, túkaléélima-fyé (S 73) ifísapí, twííkaléé∫ííkílé
(neg. S 74).

---
[1] ínsoká-ndé ='insides-snakes' (9/10). (Also xxdx used for
various helminths - threaá-, round- and even tape-worms.)
The 'proper' word for bilharzia is umúbongola (3/4).

(a) "In order that you may get better quickly, drink/be
drinking this medicine: furthermore when you go
home, do not do any work for a whole month - you
should just (be) staying) in the village."

múkapólé: S 71, you may become well, in the full future.
múleenwé: S 03, you should be drinking (series)(Eng. 'go
on taking...')

mwííkabómbé: neg.S 71, you should not work, in the full
future - the action of working is here seen as a whole,
as one set: a total ban is being put on, for a unit time
period.

múkalééíkala: S 73, you should be-becoming-sat (series):
the actions of 'becoming-seated' (-IKal-) are here regarded
as many - each time he will -IKal- counts as 'one': hence
'you will stay' as a command must be S 73: a prescription
of a series of instantaneous acts.

(b) "This coming week we shall (should) leave off planting
cassava: we shall just be hoeing ifisapi[1], (but) we
shall not (be) cover(ing) them over."

túkaleké: S 71, we should stop, in full future (single event).
túkaléélima: S 73, we should (instead) be hoeing (process).
twííkaléé ííkíla: neg.S 74, we should not be digging (them)
in/covering up (negation of progess).

See under tenses 53/54 for examples of subjunctives
being used as follow-up tenses in unfulfilled future
narrative: tuabuké: S 01, then we cross; twéénde-kó-fye:
S 01, ... and we go on a little.

When a 'main' verb in a future narrative is in a future
tense (any future) verbs 'following on' always go into the
appropriate subjunctive: viz. main verb in lines 5 or 6 -
follow-on verbs in S 01, 03/04; main verb in line 7 -
follow-on verbs in S 71/72, 73/74.

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[1] ifisapi (7/8), rough seed-bed, waiting for next season's
rain - soda roughly turned, grass still sticking out.

3.8.   Thus far the major tables A, M, P, H and S. There
is also a (relatively rare) group of tenses designated
by the code-letter K: these tenses add -ku- between
certain normal tense-signs and the radical, and this
seems to modify the basic meaning only by shifting the
'emotional attitude'.   However, they are most interesting
from other points of view.

Tenses with -ku-

These seem to represent an intermediate stage in
the process of 'auxiliary + main verb ⟶ auxiliary + stem;
but are very much 'one-word', and so are treated before
tenses using -Y- and -IS- (see below 3.9.)
We have:

KM 13/14	tu-a-lée-ku-lim-a	O/D ⟶	twaaléékulima/twaaléékulimá
KM 03/04	tu-lée-ku-lim-a	O/D ⟶	tuléékulima/tuléékulimá
KS 03/04	tu-lee-ku-lim-a	O/D ⟶	túleekúlima/túleekúlimá
HM 73/74	tu-ka-léa-ku-lim-a	O/D ⟶	tukaléékulima/tukaléékulimá
KS 73/74	tu-ka-lée-ku-lim-a	O/D ⟶	túkaléékulima/túkaléékulimá
KM 57/58	tu-a-ku-léa-ku-lim-a	O/D ⟶	twáakuláakulima/twáakuláakulimá

Negatives also occur, eg.:

KM neg. 57/58 n-si-a-ku-léa-ku-lim-a   O/D⟶ nʃáakuláakulima/nʃaakuláakulimá
te-mu-a-ku-léa-ku-lim-a O/D⟶ tamwáakuláakulima/tamwáakuláakulimá
I have also recorded cases with the pre-initial augment
ká- (let...go and---) (see 4.3., p.209)

KS 04   ká-n-lee-ku-lim-a   D ⟶ kándeekúlimá
ká-n-lee-ku-cit-a   ⟶ kándéékucítá

Note that the basic time references (1, 0, 5, 7)
are all represented, and that only tenses with -lee- or
-laa- can include this -ku-.   33/34, which we already
know to be 'new' will not accept it, and neither will
23/24, which is evidently 'newer' than 13/14 (as witness
22, -alii- -a, using -11 !)

The Bemba themselves say that this series of tenses is 'old Bemba', and all the evidence goes with them. The meanings of these tenses seem to be much the same as for corresponding tenses without the -ku-, except that a certain grudging acquiescence or impatience, or final 'must-ness', is implied in the futures and KM 03/04 used as a future: "oh, very well, I'll ... ", or "Look here, I must..." (KM 13/14 seems to have little purpose in life, but I cannot yet be sure.)

The whole nexus adds considerable force to the theory that **-L(A)- was once a verb in its own right, and that the -lee-'s represent perfects, subjunctives and neg. futures, while the -laa-'s are 'straight' simple tenses. These are eg.

tu-a-lá-e P + ku-lim-a   tu-ka-lá-a   + ku-lim-a

tu-lá-e P + ku-lim-a   tu-ka-lé-a P + ku-lim-a

tu-lá-e P + ku-lim-a   tu-a-ku-lé-a + ku-lim-a

The next stage was to scrap the -ku- for most purposes; giving us the more 'normal' tenses:-

tu-a-lá-é-lim-a (11 of -L(A)- plus main-radical)

tu-lá-é-lim-a   (01 of -L(A)-)

tu-lá-é-lim-a   (S 01 of-L(A)-)   NB. F must have a low
                                        between itself and
                                        the prefix.

tu-ka-lá-a-lim-a (71 of -L(A)- ..)

tu-ka-lá-é-lim-a (S 71 of -L(A)-..).. see S 01 above: here
                                       the L can settle on
                                       -ka-

tu-a-ku-lé-a-lim-a (the 'start'/'Carry on' tense of -L(A)-: this tense does not occur elsewhere, as a tense - but we do have ÁKU- as pre-initial in imperatives, q.v.)

Wherever a direct junction occurs between a final vowel of a verb-base and the 'bare' radical of another verb, it is a rule that the final vowel is lengthened (by the addition of a low-toned identical vowel, except-

ing doubling in accordance with Rule I). See below,

"Tenses with -Y- and -IS-".

Hence we have:

tu-a-léé-lim-a → twaaléélima   13   (+ D > 14) we were digging

tu- -léé-lim-a → tuléélima   03   (+ D > 04) we are digging

tú- -leé-lim-a → túleelima   S 03 (+ D > S 04) we should be
                                    digging

tu-ka-láá-lim-a → tukaláálima   73   (+ D > 74) we shall be digging

tú-ka-léé-lim-a → túkaléélima   S 73 (+ D > S 74) we should be
                                    (future) digging

tu-áku-láá-lim-a → twáákuláálima 57 (+ D > 58) we shall start to
                                    be digging

Personally, I can't help feeling that present-day -LI

is a very close, but much 'younger' relative of this

very hypothetical °°-B(Á)- : the tones seem to be wrong,

but tu-a-li P (remote past -LI), tu-á-li (recent past

-LI) and tu-li ("present" -LI) supply exactly those tenses

in -ile missing from the -BÁ- nexus: in other words,

they would just as well drop into the 11, 21, and 05

pigeon-holes of my hypothetical °°-L(Á)-. Of this, more

below.

3.9. Tenses containing -Y- and -IS-

Alongside all simple tenses, there are tenses

of the form p t -Y- s_1 + (o)r(e)s_2 and p t -IS- s_1 +

(o)r(e)s_2 where s_1 is a 'tense' suffix, and s_2 is merely

a neutral -s.   These serve to add yet two more

dimensions to the tables facing p.148: that of 'action

elsewhere', and that of 'action after a mutual separation.'

All tenses carry all the same references as before,

but with the extra 'dimensions' super-added. When OR

tones are applied, they apply to the whole: that is,

'high prefix ... high suffix$_2$".

There is a structural break at the point marked + above,
as can be shown by examining phonology and tonology of
the syllable immediately preceding, and the syllable
immediately following.   The preceding syllable is
lengthened: if it would have been normally represented
as h, in the corresponding tense of -Y- or -IS- alone,
in this situation it is represented as hh before L (red),
and hl before H (red).   (Note that this is exactly com-
parable with the tones on -lée- and -lás-, and also on
-líi-, in the present general tables: this will lead
us to certain assumptions about -líi-).   We have here
two new sets of tables in the course of production:
they have already reached the point at which OR tones
'cover' the whole complex, and have already achieved
the normal Bemba result of: "final vowel of primary
auxiliary being used with main verb radical stripped
of prefixes and tense signs, is always long."   The
difference between these two series of tenses and those
with -líi-, -lée- or -lás-, is that here we can still
see (and hear!) the full tone and phone structure of
the given tenses of -Y- or -IS- being realized (skipping
the representational level) in full and as normal
(except for their final vowel, which is lengthened).
In the cases of -lée- and -lás-, we cannot say what
radical is being used, because there isn't one - today.
I have made a guess that it is a radical *-L(Á)-, with
perfect *-L(I)(l)ó.   If it were, all in Cols. 3 & 4 and
7 & 8 would be accounted for: and if the meaning of
the hypothetical -L(Á)- were basically the same as that
of the present day -BÁ-, the missing tenses of -BÁ-
would also be accounted for: for -BÁ- has no *-ile
tenses (ie. the -LI group is missing) - but they are
fully represented in Cols. 3 & 4 ! - and present-day -LI
makes them good (-alí = 11, -áli = 21, and -li = 05!)

According to this view -ɓ111- -ə D (22.2) is in
fact -ɓ1i + r + ə D and -ɓ1ii- -ə (22.1) is -ɓ1i + r
+ ə.   This would fit extraordinarily well with
" 31 -ɓcí- -ə but 32 -ɓ1i nə́ə-´- ɓ́", or alternatively
(and with what lovely alternance!) 32 -ɓcíɓə́ nə́ə-´-ə́!
-ɓcí- is a comparatively new arrival, spreading from
the Luapula area eastwards into Central Bemba: in
Chinsali, for example, one still never hears -ɓcí- -ə
nə́ə-´- -ə́ P, although 31, 33 and 34 are common enough.
Similarly, twaacílí, tucílí, twaacílíílímə́, tucílíílímə́
are still never heard in Central Bemba, though common
enough in the west.   Guthrie's tuɓcílíílímə́ and
tucílíílímə́ are 'new' (as well as western); and may be
regarded as:
tu-ɓcí-li + lim-ə D and tu-cí-lí + lim-ə D respectively.
They are then obeying exactly the same phonological/
tonological rules as:

tu-ɑlée-y-ə + lim-ə D	⟶	tuɑlééyəə́límə́
tu-kə-y-ə + lim-ə	⟶	tukəyəəlimə
bə́-kə-iɑ-ə + món-ə	⟶	bə́kéə́ɑəəmóné
mu-iɑ-ile P + món-ə	⟶	mwiiʃíléémóné

It is therefore something of a toss-up whether
we should regard the tenses with -Y- and -IS- as being
on the same footing as 22, and as Guthrie's 17 and 18
(ie. "all one word"), or as a hyphenated "compound word".

The phonotonology at this junction is very
reminiscent of what we find in a relative clause such
as:
(e) ú-mu-ánə ə́-lée-cind-ə (SR) bwiino (ɓəlícénjélə́)
     the child who is ...   úmwəənɓəléécində ...
(note the long vowel and falling tone on -ə́ə-). Contrast:

(b) ú-mu-áná á-léé-cind-a bwiino, (áalícénjélá)

the child is ... ——➤ úmwaaná aléécinda bwiino ...
(note that the -á a- now have a definite break; even
in rapid speech, there is a clear difference between
(a) and (b).

Now, we know that úmwaaná is more closely linked
with aléécinda (SR) than with aléécinda, for if we
exchange it for a word taking D in weak-bond positions,
here there can <u>never</u> be D.

ú-mu-ntu D —➤ umúntú

ú-mu-ntu   —➤ umúntu

We have:

(c) ú-mu-ntu á-léé-cind-a SR bwiino ...

umúntu aléécinda bwiino ...

(d) ú-mu-ntu D á-léé-cind-a bwiino ...

umúntú aléécinda bwiino

where (c) has a clear outward and visible sign of strong-
bond.

If we elect to write mwiiʃíléemóná as one word,
should we not therefore write úmwaanáaléécinda ... as
one word? Not quite! for there is one further (and
most important) difference between these two. The
fragment -món-a cannot exist in "<u>less than a minimal
form</u>": the nearest we can get to it in terms of minimal
forms is món-a (I)(seebelow, Imperatives) which is
tonally distinct (as can be shown either by substituting,
say, lim-a (I) or by adding a few extensions, eg.
món-an-a (I) —➤ mónaná). A form (-món-a), as such,
does not exist as a 'separate word'. A form p t r a (SR)
(aléécinda (SR)) does not exist either, as a <u>separate</u>
word, of course: no more does '... who dances' in
English.   But aléécinda (SR) feels more complete in

itself than does -móne.   If we ask a Bemba to put
breaks into a speech-stream, first at the most obvious
points of weakness, then at the next most obvious, and
so on, we get a break of a bigger order in úmwasaná
aléécinda (SR) than in twiiʃíléemóná.

On balance, I would prefer to regard twạlíimóná,
tulééyéamóná, twiiʃíléemóná as by now single words:
twạlíimóná 'certainly', and others 'probably'. The
western twaacílíibómbá and tucílíibómbá are in exactly
the same category as the two latter.

The meanings of the series with -Y- are quite
simple.   The action expressed in the second radical
(the radical⌃) is, was, or will be taking place at
some kk place at a distance from the speaker, his
interlocutor, or those spoken about, and attention is
being called to this fact.

Examples:

(1) kucífwáéní ulééyaachítá-ko-nʃí? Ndééyaaimba-kó
     kalundwé.

     "What will you be doing at the cifwaani?" "I shall
     be digging cassava (there)."

(2) kabíyeení kúmwaakwé múyeemóná nga nééísá ..
     "Go to his place and see if he's come."

(3) (someone sent a child into the house to get a pot -
     (umúpika ȝ)
     úmwaaícé téiléeúmóná

     "... but the child did not find (see) it." Note
that this does not imply that 'he did not go' (téilé),
but that 'he did-not-go-find'.

The meanings of the series with -IS- are a little
more subtle: when the action of the second radical
takes place afteŕ the speaker or his interlocutor or
both have moved away from where they are now and come
back; or after 3rd persons at present at a distance

have come to the speaker's place; or after any or all
of these tht have been to sleep and woken up again, the
appropriate tense of -IS- is used.[1] (Note that in
English we 'go' to sleep, and 'return' to consciousness,
or 'come back' to life, and so forth.)

Examples:

(1) tukeessalanda (71 -IS) nga mwaabwéé15:
     mukeesaasaanga (71 -IS-) ncílí pénó-múʃí
     "We will talk when you come back: you will
     find I am still here."

(2) ciísumá, tuléélasaya-kó (63 -IS-) nga mwaabwééle
     "All right, we'll go there when you come back.
     (The two of us having been parted and reunited
     'here'.)"

(3) cínʃi uʃááʃíléénjébélé ?   (neg.OR 11 -IS-)
     "Why didn't you tell me?"

     (Implication that it would have been necessary
for the other person to move from where he was to
where the questioner was.)

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[1] This may appear to have been 'lifted' direct from
Sambeek: "A Bemba Grammar": but since I wrote it
in the first place, I feel I am entitled to lift it!
(See BG Preface. p.v., para 2.)   J.C.S.

3.10.   Compound Negative Tenses

Tenses with -KÁan- and/or -BÚL-

The hypothetical tenses (011, 013, 014) have no
simple negatives, but use either -KÁan- (refuse, deny),
-BÚL- (bec. lacking) as negative signs: there is a
difference in the meanings of the two types of negative,
as one might well expect.[1] Thus we have:

((r) = radical to be negatived)

neg.011	a-´-KÁan-a	P (r) -a		O/D
neg.011	a-´-BÚL-a	P (r) -a		O/D
(a) neg.013/014	a-´-láa-KÁan-a	(r) -a		O/D
(a) neg.013/014	a-´-láa-BÚL-a	(r) -a		O/D
(b) neg.013/014	a-´-KÁan-a	láa- (r) -a		O/D
(b) neg.013/014	a-´-BÚL-a	láa- (r) -a		O/D

There is of course a slight difference in meaning
between (a) negatives and (b) negatives. (a) carry a
force something like 'had we gone-on-failing to do x',
while (b) carry 'had we failed to go on doing x'.

A third form (c) is also possible, with -láa-
before __both__ radicals, but it is naturally very rare.

Yet another form has ku- (or ku-láa-) before the
second radical, but the phonotonology at the junction
suggests that we then have two separate words, viz.
and eg.

stúkáaná(-)kubómbá   had we refused to work

stúbúlá(-)kulima   had we become lacking to work

Tenses with -KÁan- only

The suppositional/potential tenses 071, 072, 073,
074 form negatives in the same way but with -KÁan- only.

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[1]Thus, stúkáanáafika, had we not arrived, implies that we
could, by our own volition, have arranged matters differ-
ently had we so wished. Atúbúláafika implies 'had we by
chance not arrived...' as in 'Had we not arrived that
evening, we wouldn't have seen the fireworks.'

neg. 071/072   tu-íngé-késn-s   (r) -s   O/D

(a) neg. 073/074   tu-íngéléé-késn-s   (r) -s   O/D

(b) neg. 073/074   tu-íngé-késn-s léé- (r) -s   O/D

(N.B. These tenses form their <u>relative</u> negatives in
the normal manner: O11, O13/O14 have no relative
forms, of course.)

3.11. <u>Other Compound Tenses</u>

The only other case I have recorded is with the
radical -Pan-. This radical is also used as a full
auxiliary verb; it does <u>not</u> seem to appear on its own,
ever.

é-pén-ile F -lek-s ⟶ épeenééleks (O5 -Pén-) he nearly left off

(cf. é-pén-ile F s-lek-e F(S)→ épeené (O5) éleké (S O1) he was on the
point of leaving
off, he was about
to leave off.)

ú-ku-pén-s-u-s D ⟶ úkupénééwé   'to-almost-fall'

ú-ku-pén-s-ipay-s D ⟶ úkupénééípsyé   'to-almost-kill'

ú-ku-pén-s-fú-s   ⟶ úkupénééfwé   'to-almost-die'

3.12   <u>Tenses of -TI</u>

Note: -TI has one tense that no other verb has: its
signs are a-´-Z- (eg. stuti, smuti), and its meaning is
roughly that of an 'open quotes'. It has no negative,
and its time-reference is anything but future. (To
achieve a future, we either use S 71 of -TIil-, or
ukuti, or nothing at all as our 'open quotes'.)

a-´-tu-ti ⟶   stúti

a-´-bé-ti ⟶   sbéti

a-´-é-ti ⟶   sti

a-´-u-ti ⟶   súti

The (∝) form is however ssti (cf. néétí, (∝) of
tense 42.)

There are no OR or SR forms of this tense.

-TI cannot occur in S 01/02, S 71/72 or their negatives.
I think it is dubious whether it occurs in tenses ending
in -ile, but it may.   (We wouldn't be able to tell the
difference anyway).   It does occur in most tenses
which with other radicals would have final -a, though
it naturally prefers odd numbers.   I have not myself
recorded 15/16, 06, or 01:   71 is said to be possible.
I don't know about 31.   15/16 seem unlikely on semantic
grounds.   It is quite possible that -TI never occurs
with a _zero_ or _short_-vowel pre-radical tense sign, or
with post-radical -e or -ile.   This would neatly
exclude all those mentioned, and would be quite logical:
let us suppose that -TI has no possibility of a true
post-radical tense sign, which excludes the '_real_' -a,
the -e and the -ile: where -a and -e have become pre-
radical, the '_new_' -a replaces them for all ordinary
verbs, and -TI doesn't need it.

3.13.   Tenses of -LI

-LI has only four tenses: the tense signs are

-a-   remote past

-á-   recent past

-z-   zero time (extended-now)

and -cí-   "still".

The first three tenses correspond to 11/13,
21/23 and 05 of ordinary verbs;   the fourth does not
correspond to any ordinary tense in Central Bemba,
though as we have seen, West-Bemba uses -cili- and
-acili- as tense signs.

Examples:		M	OR	SR	
05	n-li ⟶	ndi	ndí	-	(né-uli)
	á-li ⟶	alí	alí	ali	
	tu-li ⟶	tuli	túlí	-	(fwé-bali)
	bá-li ⟶	balí	balí	bali	

			M	OR	SR
neg.05	n-si-li		nʃílí	nʃílí	-
	ta-á-li		təlí	əʃílí	əʃílí
	ta-tu-li		tətúli	túʃílí	-
	ta-bá-li		təbə́li	báʃili	baʃílí
11	n-a-li	P	nəəlí	nə́əlí	-
	á-a-li	P	ə́əlí	ə́əlí	əəli
	tu-a-li	P	twəəlí	twə́əlí	-
	bá-a-li	P	bə́əlí	bə́əlí	bəəli
neg.11	n-si-a-li	P	nʃə́əlí	nʃə́əlí	-
	ta-á-a-li	P	tə́əlí	əʃə́əlí	əʃə́əli
	ta-tu-a-li	P	tətwə́əlí	tuʃəəlí	-
	ta-bá-a-li	P	təbúəlí	báʃəəlí	baʃə́əlí
21	n-á-li		ná́əlí	nə́əlí	-
	á-á-li		ə́ə́lí	ə́ə́lí	əəlí
	tu-á-li		twə́ə́lí	twə́ə́lí	-
	bá-á-li		bə́ə́lí	bə́ə́lí	bəəlí
neg.21	n-si-á-li		nʃə́ə́lí	nʃə́ə́lí	-
	ta-á-á-li		tə́ə́lí	əʃə́ə́li	əʃə́ə́li
	ta-tu-á-li		tətwə́ə́lí	túʃə́ə́lí	-
	tá-bá-á-li		təbə́ə́lí	bə́ʃə́ə́lí	baʃə́ə́lí
09 "still" (no neg)					
	n-cí-li		ncílí	ncílí	-
	á-cí-li		əcílí	əcílí	əcílí
	tu-cí-li		tucílí	túcílí	-
	bá-cí-li		bə́cílí	bə́cílí	bəcílí

Pre-radical tense signs for 05, 11 and 21 are
identical with those in the main table; and in 11,
a high tone turns up on the -li (presumably P, also
as in main table.)

4

* * * * * * * * * *

IMPERATIVES

4.   **IMPERATIVES**

4.1.   Simple:

form is r s, r e s, r e e s

s is -a singular, or *-s-íní plural

Structure of the simple imperative is as follows:

lek-a	(I)	→	leké	cease! (stop, leave)
lás-a	(I)	→	lásé	hit! (wound)
lek-el-a	(I)	→	lekéla	cease (+ extension A)
lás-il-a	(I)	→	láʃilé	hit (+ extension A)
lek-el-el-a	(I)	→	lekélela	cease (altogether) (AA)
lás-il-il-a	(I)	→	láʃililé	hit (once for all) (AA)

Rule I   Suffix -s is in tonal harmony with radical: but,
overriding this, L radical has following syllable in
contrast.   The addition of *-íní is made according to
normal rules.   (We assume the tones given in Rule I to
be structural.)

4.2.   With object 'infix':

form is o r s, o r c s, o r c c s

s is -a with (∝) (1st pers. sing) ⎫
       -c with all other p & classes ⎬ : singular
or *-s-íní and *-s-íní : plural

n-lek-a	(I)	→	ndeká	leave me!
n-lás-a	(I)	→	ndasá	hit me!
n-lek-el-a	(I)	→	ndekelé	(as before)
n-lás-il-a	(I)	→	ndaʃilé	
n-lek-el-el-a	(I)	→	ndekelelé	(as before)
n-lás-il-il-a	(I)	→	ndaʃililé	

Rule II (s) with obj. (∝), radical tone is low, suffix F

tú-lek-a	(I)	→	túleké	leave us
tú-lás-a	(I)	→	túlásé	hit us
tú-lek-el-s	(I)	→	túlekélé	(as before)
tú-lás-il-a	(I)	→	túláʃilé	
tú-lek-el-el-a	(I)	→	túlekélélé	(as before)
tú-lás-il-il-a	(I)	→	túláʃililé	

<u>Rule II</u> (b) with all other object infixes, there is P,
             and suffix -e.

4.3. <u>With pre-initial 'emotional attitude' element</u>. There are
      four 'attitude' elements[1]:

    ka-   'go and ...'
    sí-   'for pity's sake, ...'
    mbá-   '..., blast you!
    áku-   'start...'/'carry on....'

With ka-, suffix is -e, and there is P (= II(B)).
sí- and mbá- can be 'ignored': structure, and results,
no different from simple (1) above. (= I)
áku- behaves with L radicals like (α), and with H radicals
like sero, sí- and mbá-.

<u>Rule II</u> (c) with áku- there is P, and suffix -e.
(ie. cancellation of second part of Rule II (a))

4.4. <u>With attitude affix and object infix</u>.

    sí-n-   obeys II(a)
    mbá-n-   obeys II(a)
    áku-n-   obeys II(c)

    sí-tú   obeys II(b)
    mbá-tú-   obeys II(b)

    áku-tú-lek-a (I) → ákutúleká
    áku-tú-lés-a (I) → ákutúlésá

    áku-tú-lek-el-a (I) → ákutúlékelá
    áku-tú-lés-il-a (I) → ákutúláʃilá

    áku-tú-lek-el-el-a (I)→ákutúlékelelá
    áku-tú-lés-il-il-a (I)→ákutúláʃililá

áku + obj.inf. other than (α) also obeys II(c).

[142]
See next page

4.5. With double attitude prefix, with or without object infix

$$
\begin{array}{ll}
\text{sí-śku} & \text{obeys II(c)} \\
\text{sí-kə-} & \text{obeys II(b)}
\end{array}
$$

The division is:

$$
\left.\begin{array}{l}
\text{zero-} \\
\text{sí-} \\
\text{mbə́-}
\end{array}\right\} \ \text{I} \quad
\begin{array}{l}
\text{(-ə suffix in harmony} \\
\text{with radical; first} \\
\text{ext. in contrast.)}
\end{array}
$$

$$
\left.\begin{array}{l}
\text{n-} \\
\text{sí-n-} \\
\text{mbə́-n-}
\end{array}\right\} \ \text{II(a)} \quad \text{(low r, -ə F)}
$$

$$
\left.\begin{array}{l}
\text{kə-} \\
\text{zero-} \\
\text{sí-zero-} \\
\text{mbə́-zero-} \\
\text{sí-kə-} \\
\text{mbə́-kə-}
\end{array}\right\} \text{II(b)} \quad \text{(-e F)}
$$

$$
\left.\begin{array}{l}
\text{śku-} \\
\text{śku-n-} \\
\text{śku-zero-} \\
\text{sí-śku-(n)(zero)}
\end{array}\right\} \text{II(c)} \quad \text{(-ə F)}
$$

'Heirarchically', --n- has the effect of obliterating
H rad. and -e F or -e P, while śku- has the effect
of obliterating n- (and -e F or -e P).

---

[1] (From previous page) This is a convenient point to note
that the Subjunctive tenses also share these pre-initial
'Attitude' elements: in their case, the selection is
kə- 'let me'/'let us' (exhortative to 1st persons);
'go and' (all other persons): sí- (not applicable to
1st pers.sing. (∝)) as above. mbə́- (not applicable to
1st pers.sing. (∝). nsə- (not 1st pers.sing. (∝))
exhortative to all other persons including 1st.pers.
plur. (β): also carries a force of 'right now, let's...'
as a conclusion to a discussion. (śku- does not occur
with subjunctives.)

[2] mbə́ is probably best regarded as a separate word, since
it is also capable of appearing after the imperative,
with no change in tonal representation.

4.6. Curiosities

4.6.1.   There is one 'irregular' imperative: -Y-, go, has:

kabííye   go! (sing)

kabííyeení   go! (plur)

4.6.2.   There are two imperatives having no associated verbal:

(a) (s) leeló   look out! Achtung!

(p) leelwééní

Also heard: léelóoóléélodóléélóoó - when hunting, and a
big animal is near.

(b) (s) alé, aló, andó   carry on! Let's get started!

(p) alééní, alwééní, andwééní

4.6.3.   To a hunter on his return you say, "Bambééní?" (-BAMB-
hunt successfully), which is not a command but a question.

To a chief one may say, "Bwáscééní!" (-CÉ-, 'dawn' -
but it is úbuʃíkú (14), night, that -CÉ-'s) - which is in
no sense a command, but a praise-greeting.

4.6.4.   -IS- , come, may appear in association with a following
(ɣ) or (δ) subjunctive in the following forms:

is-a (I) u-món-e F ⟶   isá úmoné (pr. isóómoné); ⎫
                     or sóómoné;   ⎬ come and
                     or sá úmoné (pr. sá. úmoné)   ⎭   see

but with n-ku-eb-e F ⟶ isánkwéébe   come let me tell you
                                                     (ɣ)

is-a-iní (I) mu-món-e F ⟶ isééní múmoné; ⎫ come and see
                     or sééní múmoné   ⎭

with mu-úmfw-e F ⟶ sééní múúmfwe   come and listen

but with n-mú-eb-e F ⟶ isééní ḿmwéébe   come let me tell you
                                                     (δ)

4.7. Hybrid Imperatives

4.7.1.   There are a few cases of 'crossing' between normal
imperative and normal subjunctive forms. Thus we have eg.

tu-mon-e F (S)   ⟶ túmone   let us see (addressing iwe
                                                     (Y))

but tu-mon-e F (S) -iní ⟶ túmonééní   let us see (addressing imwe
                                                     (δ))

tu-umfw-e F (S)   ⟶ túmfwe   let us listen (addressing iwe)

tu-umfw-e F (S) -iní ⟶ túmfweení   let us listen (imwe)

tu-lee-y-n-iní   ⟶ tuleeyééní   let's be going

tu-end-el-e F (S) -iní ⟶ twééndelééní let's go on, proceed

4.7.2. There is a large class of greetings which appear to be
crosses between 41 and imperatives. It is impossible to
assign any one kind of meaning to these, other than that
of _greeting_ itself; we have for example:

1. mwéépólééní   -PÓL-   bec.well again, get better,
                                         recover
2. mwasíseení   -IS-   come
3. mwasbómbééní   -BÓMB-   work
4. mwaalfíleení   -LÍil-   eat well
5. mwascúúleení   -CÚUL-   suffer
6. mwaasálípeení   -SÁLip-   rid country of dangerous pest

Of these, (1) expresses the hope that the person(s)
greeted are well (indeed the word for 'greet' is -PÓSj-,
which also means 'make well');

(2) approves the person's having come

(3) congratulates on work done, or commiserates on the fact
that he's working

(4) enquires whether he is in fact eating well. (The
reply is - alé mukwaíí, kúúlíla mulέelyá - "no,
only if you are", "provided that _you_ are eating")

(5) commiserates with suffering (can be said to someone
working hard, or to someone known to have suffered loss
or damage)

(6) congratulates on having rid the country of a dangerous
pest.

Indeed, almost _any_ activity or state may be made the
inspiration for such greetings.

The structures appear to be, eg.

$$mu-\acute{a}-is-a + \acute{i}ni^{(\prime)} \longrightarrow mwasiseeni$$

$$mu-\acute{a}-b\acute{o}mb-a + \acute{i}ni^{(\prime)} \longrightarrow mwaab\acute{o}mb\acute{e}\acute{e}ni$$

$$mu-\acute{o}-t\acute{e}m-a + \acute{i}ni^{(\prime\prime)} \longrightarrow mwaat\acute{e}m\acute{e}\acute{e}ni$$

$$mu-\acute{a}-l\acute{i}il-a + \acute{i}ni^{(\prime)} \longrightarrow mwaal\acute{i}\acute{i}leeni$$

$$mu-\acute{a}-sibuk-a + \acute{i}ni^{(\prime)} \longrightarrow mwaa\int ib\acute{u}keeni$$

This seems to involve a new principle in tonal representation: it is as if we have eg.

$$mu-\acute{a}-b\acute{o}mb-a \longrightarrow (41) \quad mwaab\acute{o}mb\acute{a}$$
$$mu-\acute{o}-t\acute{e}m-a \longrightarrow (41) \quad mwaat\acute{e}m\acute{a}$$

and then add $-\acute{i}ni^{(\prime)}$

The other types **would** work according to normal rules, but I feel it best to consider a11 as if they were (41) + $-\acute{i}ni^{(\prime)}$.

N.B. mwaap\acute{o}l\acute{e}\acute{e}ni (the standard all-purpose greeting) appears to be a special case: it is high throughout, and also has a 'familiar' form, used for greeting children, viz. mwaap\acute{o}l\acute{a} (note the (S) prefix!)

4.7.3.   Another hybrid '-$\acute{i}ni^{(\prime)}$' type is a special form of -TI: it appears to be a cross between 41 of -TI and 'imperative', and is used to mean 'n'est-ce-pas', 'you don't say!', 'really?'

$$\acute{a}-\acute{o}-ti + \acute{i}ni^{(\prime)} \longrightarrow \acute{a}tiini?$$
$$b\acute{a}-\acute{o}-ti + \acute{i}ni^{(\prime)} \longrightarrow b\acute{a}\acute{a}tiini? \quad (b\acute{a}tiini \text{ also recorded})[1]$$

The same meaning can be conveyed by the forms:

$$\acute{a}-\acute{a}-ti \longrightarrow \acute{a}ti?$$
$$b\acute{a}-\acute{a}-ti \longrightarrow b\acute{a}\acute{a}ti?$$

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[1] These forms sometimes sound more like ($— — \_$); the high-degree tone range makes downdrift more pronounced.

5

* * * * * * * * * * *

HYBRID FORMS:

VERBO-PRONOMINALS, VERBO-NOMINALS, AND OTHERS

5.1. Verbo-Pronominals

These are so largely verbal in structure that I feel they should be 'noticed' under our present title. They are of two types. The first consist broadly of I.V. plus pronominal prefix plus a finite verb in a subject relative tense - that is, they always have low tone on prefixes, and obey Rule IX of Tonal Representation. (Their tenses may be selected from the odd-numbered in Tables M and P.)

5.1.1. Finite-verb type (relative verb-nouns) consisting of

I.V. + pronominal prefix + tense-sign + verb radical + suffix tense-sign. These can occur in any odd-numbered indicative tense, except anteriors 101 and 103. They always have low tone on prefixes and obey Rule IX of Tonal Representation.

SR 03 á-ba-lée-bomb-a → ábaléebómbá (3) those who are working

SR 05 neg. ú-tu-si-bómb-ele P→ útu ʃíbómbélé (13) those who didn't work

SR 01 ú-u-peep-a → úupeepa (1) one who smokes

SR 05 ú-u-fik-ile P → úufikílé (1) he who arrived

Let us not forget the curious subject/object ambiguity that this prefix can achieve:

ú-u-lée-fuay-a → úulééfwaaya (SR 03) [kapééso níMwambá]

can mean both "the one who is looking for the messenger is Mwamba"

and "Mwamba is the one the messenger is looking for"

(see 2.2.4.)

Note also:

í-ci-bulum-il-a → ícibulumina (Cl.7)(SR 01) [nkálémó] (Cl.1A)

is much 'better idiom' than

íco (Cl.7) ínkalamo (Cl.9) í-bulum-il-a R → íbulumina (QR 01)

Both mean "Why the lion roars".

The I.V. is replaced by stabilizers É- and TEÉ- ; by
locative pre-prefixes PA-, KU-, MU- ; by the personal
pre-prefixes NE-, FWE- : WE- and MWE- ; and by the linking
-A- :

SR 03   é-ba-lée-bómb-a ⟶ ebaléebómbá (2)   those are the ones
                                                 who are working

SR 05   é-u-fik-ile P ⟶ éufikilé   (1)   that's the one who
                                                 arrived

SR 05   teé-tu-si-bómb-ele P → téétuʃibómbélé (13) those are not the
neg.   ones who didn't work

SR 05   mu-bu-lúm-ine P ⟶ múbulúminé(18,14) in the strong stuff
                                                 (ie. úbwaalwá (14)beer)

Since these verbo-pronominals have tense, there can be no
(C)VV- stable form, 'dropping' the I.V. and lengthening
prefix-vowel, because such a form would often obscure the
tense sign. When the I.V. does not occur (ie. in close
bond with preceding) the form is naturally indistinguish-
able from (and except in Cl.1 apparently identical with(?))
an ordinary subject-relative tense, characterized by low
prefix tone.

5.1.2. Infinitive-type

These consist of I.V. + pronominal prefix + -Á-
+ Cl.15 nominal prefix + verb-radical + -a:

a-pa-á-ku-biik-a ⟶ ápaákubiika (16) somewhere to put ...

ú-u-á-ku-tép-a ⟶ úwaákutépá (1) someone to draw ... (water)

í-ci-á-ku-píngil-a.ko ⟶ ícaakupíngílako (7) a thing to hang ...
                                                           on

They behave in all respects just like other forms with
this type of prefix: I.V. does not occur in close bond
with preceding, or in positive stable forms.

a-ya-á-ku-nó-a ⟶ áyaákunwá (6) the sort to drink

á-ma-ínsi yá-á-ku-nó-a ⟶ ámeenʃí yáákunwá (6) drinking water

yáa-á-ku-nó-a ⟶ yáákunwá (6) it is the sort to drink

I.V. is replaced by stabilizers É- and TEÉ-, and by locative
pre-prefixes PA-, KU-, MU-.

5.2.   Verbo-nominals

These consist broadly of I.V. plus nominal prefix
plus verb-radical plus (extension plus) suffix. I give
the barest outline, since they are mostly so 'nominal'
in structure and even behaviour.   Their major claim to
be noticed under the present title is that their radical
is so obviously verbal; and also, in the case of the
'infinitive' (úku-(r)-a), they will take object infixes
and even the -lás- of 'continuity of action';
áma-í-(r)-ile has an honest reflexive; and even the
other cases ími-(r)-ile, and úlu-(r)-il-á, and úbu-(r)-ile
are I think sufficiently verbal-looking to scrape in!

5.2.1.   The 'Infinitive'

This normally consists of I.V. + Cl.15 nominal prefix
+ verb-radical + suffix -A. [1]

ú-ku-bomb-a + D	⟶	ukubómbá	(15) to get wet, 'a getting-wet'
ú-ku-bómb-a	⟶	úkubómbá	(15) to work, a working

Possible variants are:

(a)   those having -LÁA- before the radical giving the
notion of continuous action:

ú-ku-lás-lima + D ⟶ úkuláslímá   (15)   continuous digging

(b)   those having an object 'infix' before the radical:

ú-ku-cí-lek-a	⟶ úkucíléka	(15) leaving it (7)
ú-ku-mu-léb-a	⟶ ukúmulábá	(15) forgetting him (1)

(c)   a form consisting of the verbo-nominals úkukáána
or úkubúlá plus a verb-radical + suffix -A. These give a
negative meaning to the radical in question:

ú-ku-káan-a-cíta	⟶ úkukáánáacítá	(15) not doing, not to do
ú-ku-búl-a-fika + D	⟶ úkubúláafíka	(15) not to arrive, non-arrival

[1]High-frequency ofcurrences of this form are:
(1) after -FWAAY- (went) -TAMP- (begin) -KÁan- (refuse, deny)
    -BÚL- (lack) -EB-(tell) -PANG- (intend).
(2) with pre-initial na- (and,with)(where it is required to
link two verbal clauses) - Bemba cannot add na to a finite
verbal, so achieved the link by adding na to the úku-(r)-a
form and then putting the same (r) in a finite form.

(d) - more rarely, it seems - a form with -sí- before
the radical, also with negative meaning:

ú-ku-sí-sel-a ⟶ úkuʃíséla   (15)   not to move

Note: this example serves to illustrate the difference
in meaning between the two types given under (c):

úkuʃíséla nga ndéepyángó kúúbi

"not to move when I'm sweeping is bad" (because I might
sweep dust in your face, or knock into you, etc.)
Here úkuʃíséla can be replaced by úkukéénsa-sela, but
not by úkubúléé-sela: the first implies volition, the
second not.

(e) combinations of (a), (b), and (c) or (d).

But all of these variants behave in the same way as
far as prefix and I.V. are concerned:

(i) the I.V. does not occur when the form is strongly
bound to a preceding negative verbal, or to a preceding
-LI or -BÁ- negative or positive: or in the positive
stable form, eg.

tatúleefwééya kubómbá   we don't want to work

kúukéénsa-kúlá bwíínó   it is a not-growing (up) properly

baakúúki kúúsamba imbálá   Cook is to wash the dishes
                            (general blanketing instruction)

(ii) the I.V. is replaced by stabilizers É- and TEÉ- ;
by locative pre-prefixes PÁ-, KÚ-, MÚ-; and by linking -Á-.

é-ku-kéen-a-kúl-a ⟶ ékukéénós-kúlá   (15) that is not growing(up)

pá-ku-món-a   pékumóná   (16,15) on seeing (immediately
                                      before or after seeing,
                                      when seeing)

teé-ku-lim-a D ⟶ teekúlímá! (15) that's not farming!

mú-ku-bomb-a   múkubómbá (18,15) working (in a place)

kú-ku-sit-a   kúkuʃits ... (17,15) in order to buy ...

teé-pa-ku-fin-a   teepékufina! (16,15) it ain't 'arf 'eavy!

í-li-á-ku-téeb-el-a.ko ⟶ ílyáakutéébélakó (5)(eg.an axe) to
                                           collect firewood with

á-pa-á-ku-aendam-a D ⟶ ápaakúséndámá   (16)(a place) somewhere to
                                          sleep (on)(at)

The last two forms cited are examples of the linked verbo-
nominal mentioned in 5.1.2. and are triple hybrids: they
must be finally classed as verbo-pronominals.   Tonology
is normal: a high object infix cannot start a diatonic
chain.

5.2.2.   <u>Other types</u>

These also consist of I.V. + nominal prefix + verb-
radical + suffix, and include:

(a) Cl.4 with suffix -ile/-ele; with h on syllable
following radical:

í-mi-land-íle ⟶ imílandíle   (4) way of talking

é-mi-i-íle   emíiilé   (4) that was/is/will be (the
                                 time of going)(when (they)
                                 went/go

(b) Cl.6 with reflexive infix -í- and suffix -ile/-ele,
in harmony with radical:

ó-ma-í-cít-ile ⟶ ámaícítíle   (6) a doing for oneself

máa-í-sal-ile   máaísálile   (6) it is a matter of
                                     choosing for oneself

(c) Cl.7 with repeated radical and repeated suffix -é (F):

í-ci-land-é-land-é ⟶ icílandélandé (7) a talking rubbish

(This form often appears in close bond with a preceding
verb, in which case the I.V. does not occur.)

Note that as in 2.5.2., when a -C-, -V- or -CV- type
is required to express this idea, it <u>triples</u>:

í-ci-y-é-y-é-y-é ⟶ icíyeeyééye   (7) wandering[1], roaming,
                                      going far afield

í-ci-bá-é-bá-é-bá-é ⟶ icíbéébéébé   (7) being any old how

(d) Cl.11 with suffix -ilé/-elé:

ú-lu-afal-ilé ⟶ úluʃáálilá (11) constant and silly
                                 remaining behind

All these behave as normal nominals as far as I.V. and
prefix are concerned.

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[1]There is also a form icíyaayááya (7) which seems to mean
'over long distances, wide areas'.

6

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VERBAL INTRODUCTORY

and

LINKING PARTICLES

6. Verbal Introductory and Linking Particles

6.1.   There is a class of words in Bemba that we may call
'introductory and linking particles'; or simply 'introducers'
and 'links'.   Of these, about one-third are clearly verbal
in origin.   The group as a whole makes a most fascinating
study, most of the members being highly fastidious in their
choice of following tenses.   Many of them present very
considerable problems in definitions of usage, partly
because their areas of meaning are difficult to outline,
often having no manner of counterpart in other languages,
and yet exhibiting a tantalizingly subtle precision.

For the sake of completeness, I feel the recorded
verbal types should be listed: I think we do have to
regard them as a special functional group of single-word
verb-forms, though most of them don't behave in any 'con-
ventional' verbal manner.   The meanings quoted are only
the most usual – to go into detail, of meanings and usage,
would require the space of another thesis!

6.2.   The majority are verbo-nominal in appearance:

kúu-bál-a	⟶	kúubálá	first...(should/ought)...
-bál-	start, 'to first'		
kúu-lil-a	⟶	kúulila	provided that
-lil-	cry		
kúu-món-a	⟶	kúumóná	if, supposing that, in case ...
-món-	see		
kúu-sang-a	⟶	kúusanga	(= kúumóná)
-sang-	find		
kúu-suk-a	⟶	kúusuka	until finally ...
-suk-	'to in-the-end', 'to until'		
kúu-tál-a	⟶	kúutálá	(= kúubálá)
-tál- ≐ -bál-			

kúu-úmfw-a   ⟶   kúumfwó   in case.../ or else...

    -úmfw-   hear, listen

ku-úmfw-a   ⟶   kuumfwé   as for.../ but as for...

ú-ku-bá-a   ⟶   úkubá   well anyway.../ well, even though..
                       "mmm, but... (eg.grudging agreement)

    -bá-   be, become

ú-ku-cíl-a   ⟶   úkucílá   "....er than..."

    -cíl-   surpass

ú-ku-fik-a   ⟶   ukúfika   to ...

    -fik-   arrive

                                    as in "from here

ú-ku-fúm-a   ⟶   úkufúmé   from ...

                                    to there"

    -fúm-   come from; go out

ú-ku-sint-a   ⟶   ukúʃihta   to ...

    -sint-   reach to

ú-ku-úmfw-a   ⟶   úkuumfwé   always provided that.../ on the
                            understanding that.../ if it
                            should happen that...

na-ku-bá-a   ⟶   nakubá   "yes, and besides..."/ "yes, and
                            in any case.."/"I know what it is.."
                            (sudden realization)

6.3.   Three have the appearance of finite verbs:

cí-fú-ile   P LP ⟶   cifwíílé   perhaps / for if... he
           (invariable)   may... / ... let him not...

c.f.
(Cl.7 of GR o5 of -fú- die/ought/think)

n-a-kéan-a   LP ⟶   naakéána   but if...
              (invariable)

(cf. ∝ of GR 41)   [-kéan-   refuse, deny]

kú-is-a ᴿ ⟶   GR 01   kwíísá   otherwise, in case...
              or   kwíísa (kwíísá) ("which there comes...?")
           (invariable)

(cf. Cl.14 of GR 01 of -IS-)   [-IS- come]

(It seems this cannot be kúu-is-a (stable verbo-nominal

as in several of 6.2.), which would give only the form

kwíísé.)

     It is doubtful if cáamyá should be included in this

group at all - it does look as if it might be cí-a-amy-a   P

(Cf. Cl.7 of ↓5 of -AMy-) but there doesn't seem to be a

radical -AMy-.   I have wondered if it might be a
collapsed form of -WAMy-, (Y) of -Uem- , bec. good,
since cásmyé means something like, "It will be good if.."/
"it's to be hoped..."

6.4.   Others are genuine finite verbs, or verbo-
pronominals:

é-ci-é-leng-a   ⟶   écaslénga   so that ...
        -leng-   cause (to be) ...

(Cl.7 of 41 with presentative pp). This is invariable
in class, though not in tense. The form quoted is by
far the most common.

u-íks-bál-a   wíiksbálá   (Y of neg. 71)
        -bál- 'to first'

Variable in class/person, but not in tense. Serves to
add special emphases, rather in the manner of the
English "You're not going to tell me..??"
"You sound brave enough to kill an elephant!" (impl.
"... but are you?")
"Did I cut you?" (impl. "Can't believe it!")
"Do you smoke a pipe, by any chance?" (impl. "I hope not!")

ú-u-é-lusy-a   ⟶   úwaslúʃa   "one-such-that (even-
(SR 41 with pp Cl.1)   though)... "

Variable in class/person and tense. Can also appear in
Cl.1 though referring to other classes. Most commonly
heard in the form quoted, or its plural, even when the
expected agreement is not that of Cl.1/2) This radical
-LUSy-[1] does not occur in any other 'free' construction,
and no meaning could be ascribed to it by any informant,
other than the one it imparts to the type of form quoted.

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[1] There is of course -LUSy- (Y)   to -LUK- , bec.bitter

u-t-lek-a   "so that" can occur in several tenses,
with S 01, S 71, 03, 71, 41 most prominent. (This u-
is the (Υ) of generalisation - it is somewhat like the
English "you can see Calais from Dover", or the French
"on"/German "man", but even more general.) Thus "Let's
hope the beer is strong, úleké (S 01) túkolwé (S 01) -
so that we may get drunk."

6.5.   There are forms náátemwa / áátemwa, that look very
much as if connected with -TÉMW- , like, love: become
pleased, happy:

n-áa-témw-a D ⟶ 42 náátemwa   (náátémwá)
á-áa-témw-a D ⟶ 42 áátemwa   (áátémwá)

They both mean maybe/perhaps/or/either... or/or, if you
like,;;; /or, equally ... (There is also a form nantémwa
with the same meaning.)

6.6.   Finally there is a family based on the radical -TI:

Ź-ku-ti ⟶ kúti   (+ verb = permission/obligation/
                                           ability)

ú-ku-ti ⟶ ukúti   in order that.../ that.../ meaning...

é-ku-ti ⟶ ekúti   that is so that.../ that means..

ta-é-ku-ti ⟶ teekúti   (+ verb = neg. of kúti)

ta-é-ti? ⟶ tééti[1]   (like teekúti - more or less)

Ź-pa-ku-ti ⟶ pékuti   by the time/in order that/since

Ź-mu-ku-ti ⟶ múkuti   while

ú-u-á-ku-ti ⟶ uwaakúti   (Cl.1) one-of-a-sort-that/would that...
                                                    /if only...!
(invariable in class, but also appears in Cl.1 through
referring to other classes)

í-ci-á-ku-ti ⟶ ícaskúti   (Cl.7) in-such-a-way-that.../so that...
(invariable)

cí-á-ku-ti ⟶ cáákúti   (Cl.7) and (when).../so that...
(invariable)

----

[1] Less frequently recorded is teetí, which is tonally 'right'
(ta-é-ti ⟶ teetí). I doubt if there is any difference in
meaning, but I haven't enough material to be sure.

ú-a-ku-ti   →   wéékúti   (Cl.1) so that.../ in-such-a-state-that.

(invariable)

kwáatí

(invariable) - structure doubtful, but said to be a collapsed form of kúti wáatí..., which would certainly give the right meaning "as if" / "you might think..."

6.7.   As can be seen, the meanings of many of these verbal particles deviate widely from those they would have if not functioning as introducers or links. This is not just a matter of translation failure, or 'meaning-in-English': the Bemba feel it too.

For example, there is no sense of semantic relationship between kúúlila (provided that) and kúúlila (it-is-a-crying); or between the particle wíikabélá and the ordinary verb meaning 'you mustn't start (by)... (at some time after today)'. In other cases, however, we do perceive an obvious connection - eg. ukufúmá (from), ukúfika (to) are so 'normal' that they only scrape into this section on the grounds that I don't feel I could have actually _predicted_ this usage, working from whatsoever evidence I pleased.

6.8.   Finally, I think it might be of interest to quote a few examples in context: not of every one, nor even of every usage of those quoted, but enough at any rate to support my contention that these _are_ genuine introductory and linking particles, with at least the appearance of single-word verb-forms. (It would be most interesting to know if comparable collections could be made from other Bantu languages - I find it difficult to believe that Bemba is exceptional in this, yet so many writers seem to say, "Conjunctions (or whatever) are rare in Language X." If we count all varieties, Bemba must have at least eighty or so!)

<u>kúulila</u>

múleetépé kúciʃíma kulyá kúulila técíkémíné

"you (can) draw from the well yonder, provided it hasn't
dried up (and I don't know whether it has or not)."

<u>kúusuka</u>

nga uléebííka-pó úmutí lyééná kúusuka cáápolé pénʃiku

ʃínnóonó:

"if you go on putting medicine on it, (then) in the end
it will get better after a few days."

<u>kúumfwá</u>

kénjeemóné-ko, kúumfwá nééísá

"let me go and look, in case he's come."

<u>kuumfwá</u>

AbaMámbwe nééabábátamfyé kúBáLúngú ... kuumfwá

Abéénamwángá béená, ábaʃáákosá nákúkósá, katwííʃi ʃfyo

bákabácítá.

"The Mambwe have been routed by the Lungu - but as for
the Benamwanga, who aren't very strong, well, I don't
know what they'll do to <u>them</u>."

<u>úkubá</u>

Úkubá kwééná néélyo wáásósá ifyó múúlungíká, nómbá...

"Well, even though you say so - maybe you're right, but ..."

<u>úkuumfwá</u>

Úkuumfwá twééíma, tukayaafika-kó

"<u>Provided</u> we start (now), we'll get there."

<u>nakubá</u>

nakubá íné nkaya kúNdólá maíló

" - oh, and in any case I've got to go to Ndola tomorrow."

(linked up with something you don't like, or are in the

process of refusing - plus the 'sudden realization' idea.)

<u>cifwíílé</u>

njikéélé mípeepí noomúlíló, cifwíílé náápya

"I'm sitting close to the fire (and if I continue) I may
get burnt (therefore let me move)."

<u>naakééna</u>

naakééna nga uléecítá ifí...

"But <u>if</u> you do this..."

<u>kwíísá</u>

kantaluké kúmúlílo kwíísá náápya

"Let me get away from the fire in case I get burnt."

<u>cáamyá</u>

cáamyá takúli mfúlá icúngúló leeló, waaléka twaayá
kúkúlúngá

"It's to be hoped (it'll be a good thing if) there isn't
rain this evening, so that we can go hunting."

<u>-íkabálá</u>

iíkabálá nímpaka?

"Could it be / I suspect it's / a bush-cat? (which I
don't want it to be."

twííkabálá twaayá úko báabinda?

"Do you suppose we're trespassing?"

wííkabálá upeepa múmpáipi?

"Don't tell me you smoke a <u>pipe</u>?"

<u>úwaalúʃa</u>

úwaalúʃa / íyaalúʃa néély, iʃáálc pákasúbá téétí icúcuké

"It (ínsalú, Cl.9, cloth) is of a sort that even if it
stays in the sun, it won't fade."

(Note that both Cl.1 and Cl.9 pp are possible.)

<u>úwaakúti, úleké</u> (see above, cáamyá)

úwaakúti ubwaalwá náabúkálípá úleké túkolwé

"Let's hope the beer is strong, so that we can get drunk."

<u>kúti</u>

ee, ńga cínʃi, kúti waayá - kúúlíla.fyé wééndaʃé

"Yes, why not, you can go - provided you hurry."

<u>ukúti</u>

ndééfwaaya ukúti nje kútauni múnó.lucéélo

"I want to go (that I should go) to town this morning."

<u>pákuti, teekúti</u> (for téétí, see above, úwaalúʃa)

pákuti naalí umwééní teekúti njíʃibé.po yóo

"Since I was a stranger, I couldn't (possibly) know where
(it was)."

pékutí múkapolé bwangu, múleenwá úmutí uyú

"In order to get well quickly (that you will ...), you
should drink this medicine."

úwaakúti / íyaakúti could be substituted for úwaalúʃa /
íyaalúʃa above, without much change of meaning.   In
certain cases, however, such substitution would be
impossible.

ícaakúti

áaíbíla úmubííya icítambálá ícaakúti teetí óomfwe

"He stole his companion's handkerchief in such a way,
that he didn't feel it."

kwáatí

móná kwáatí níbémbá aⱡi-kó.

"Look, it looks as if there's a lake there."

7

* * * * * * * * * *

SUMMING UP

SUMMING UP

Sections 1 and 2 were both introductory; serving
to familiarize the reader with the terminology and some
of the techniques, and clearing the ground for the larger
discussion in 3, 4 and 5. Of these latter, 3 is the
most vital: for while a major assumption can be
discerned throughout the paper, it is in 3 that it
appears at its most obvious.

For Bemba, then:

(i) There is a remarkable relationship between meaning
and form: the association of the various forms of
the negative with both grammatical and semantic
sub-divisions is especially noteworthy.

(ii) The categories of time reference and aspect are
familiar: but Bemba tenses are capable of
indicating emphasis as well. This is strongly
associated in Bemba with the formal feature of
presence or absence of diatony, as with the ability
of only one of the two types of main-sentence
tenses to form relative tenses.

(iii) Final -e appears only in the simple subjunctives,
the perfective tenses (in the latter in the -ile
suffix), and in the future negatives. It is
associated in parallel progressive and inceptive
tenses with pre-radical -lee-, whereas final -a
is associated with pre-radical -laa- : the basic
forms involved are: pre-radical zero, pre-radical
-la-, final -a, final -e, and final -ile.
Tenses 01/02 (zero simple) are the 'simplest',
both in meaning and in form.

Bemba is a lucky example of a language with a
remarkably systematic correspondence between form and
meaning; there are very nearly as many forms as there
are basic meanings, and thus the full skeleton of the
table is made apparent.   Certain characteristics are
common to many Bantu languages: the division of time
into remote, recent (often equalling yesterday, of
course), earlier today, just now (past and future), zero,
and present, later today, and tomorrow-and-onwards;[1] the
division of aspects into simple, progressive, persistive
(perfective), inceptive, and completive; the division
of tenses having identical time-reference and aspect into
non-bound and bound (more simply, emphatic and non-emphatic,
or in some languages, exclusive and non-exclusive); the
broad division into indicative and subjunctive, the latter
having only two or perhaps three time-references; sub-
divisions for tenses 'outside time'; the possibility of
forming relative tenses from one set of columns by
systematically changing the tone-pattern. Bantuists have
widely adopted the class-numbering system for nouns: a
tense-plus-aspect numbering system for verbs would greatly
facilitate interchange of ideas and discoveries.   Not all
languages would have as many divisions as Bemba; some
would have extra divisions; but the present lines 0 - 7
and columns 1 - 8 (a few languages may have their odd and
even numbers conflated) seem common enough to act as a
standard.[2]   The general acceptance of the division of
radicals into (at least) A and B types, for 'instantaneous'
and 'process', might also be of value.

---

[1] 'near' and 'distant' in some languages.

[2] I have used this framework with success on other languages.
The odd-even distinction has proved particularly valuable
in speeding up the analysis of tonal systems.

In "The Southern Bantu Languages" C.M. Doke states:
"... it is of significance to consider Bantu verbs according
to their IMPORT; this governs, to a great extent, their
syntactical use."   Now here I have not ventured far into
the syntax of the Bemba verb - to have done so would in
the end have involved me in a discussion of the whole of
Bemba grammar - but something rather like Doke's IMPORT
has concerned me a great deal at another level.   Agreed
that we cannot speak of (say) the English 'meaning' of a
Bemba tense: there is no such thing.   But we can and do
discern certain (abstract) semantic differences between one
Bemba tense and another; differences, if you like, in
import (let us not go so far as to use the evocative -
and provocative - word: 'meaning'!)   At the risk of
appearing somewhat repetitious, let us examine the actual
(mental) processes of 'sorting' as they occur to an
ordinary listener to Bemba speech: the first group of
abstract semantic differences that we notice all have to
do with time: we observe that some tenses are applied
only to events in the past, some to events at zero time,
some to the future. We then see that the speaker (or
today, writer) sometimes considers an event as single,
instantaneous and simple, sometimes as continuing in time,
or as forming a series of instantaneous events; sometimes
an event is regarded not only as having occurred, but also
as having an effect still perceptible - 'perfectively' in
fact; and sometimes events are considered especially from
the point of view of whether or not they have been com-
pleted, or are about to start occurring.   Next we notice
a more subtle difference, between tenses which are
identical in everything that has gone before: many tenses

are 'paired', one member of the pair apparently being used
to achieve a certain emphasis, the other not.   Along with
all these differences, we have by now noticed differences
in the sentence-situations in which certain groups of
tenses can be used: thus, those which afterwards come to
be labelled 101 and 103 can never be the only verb in a
sentence, but are always followed by another verb, which
itself always refers to an event posterior to that des-
cribed by 101 or 103.

Those which afterwards come to be labelled 011 and
013/014 likewise rarely stand alone;   they are (nearly)
always followed by a clause starting nga... , and always
refer to an event which did not, or cannot now occur.
Those labelled S 01, S 03/04, S 71 and S 73/74 often
(though by no means always) occur directly after a verb
in a tense from table M, and refer to events wished for,
exhorted, expected, suspected, doubted or denied - and so
on.

Now, all these semantic (and syntactical) pattern-
differences are associated in the Bemba verb with clear
morphological series: as we saw, -a- (pre-rad.) ∼ remote
past, -á- (pre.rad.) ∼ recent past, -áku- ∼ inception,
-lée- and-láa- ∼ continuity, D ∼ weak-bond,   ta- ∼ negs.
of past, ta- ∼ negs. of future and so forth.   "Bemba is
a lucky example of a language with a remarkably systematic
correspondence between form and meaning..."   Lucky it
may be: but it nonetheless points a moral, and indeed a
method.   The verb-tense table at p. 148 is held together
not only by semantic considerations (those which led in
part to its original discovery and design), but also by
morphological series.   The bonds of each serve mightily
to strengthen those of the other: alone, each would be

pretty convincing;   together as an argument, they are
irresistible.   Moral – one should not try to keep
'meaning' out of one's grammatical analyses, and attempt
to make them strictly formal – (a) it can't in fact be
done (as I hope I have shown) and (b) it doesn't pay,
because (c) the analyses can be made so much more convincing
by using 'meaning' deliberately and on a grand scale in
both their planning and execution.

Granted that in many Bantu languages the verb-forms
may include (besides their tense signs proper) special
infixes or affixes which convey extra items of meaning.
(Bemba's close neighbour Nyanja has such features in
plenty – see PSN p.51.)   Granted also that we may even
find verbs capable of breaking up into two pieces (Guthrie
in BWEA quotes Mendi as having this kind of quirk).   But
the general technique here outlined does not break down
because of extra infixes and cracked verbs.   We may still
get at basic differences and similarities in meanings by
uncovering our second degree morphophonological level
and deducing our rules of representation.

What is more, the conclusions about Bemba to which
the technique led us can be used in the analysis of other
Bantu languages.   In particular – for each 'mood', a
basic three-dimensional (time/aspect/bond) framework has
great analysing power, and the logical numerical system
(line = time-reference /column = aspect / odd-even =
strong-weak bond) gives us an easy way of teaching and
remembering.

Just as a knowledge of CB roots and general grammar
helps us to know what to look for, so a knowledge of a
CB verb-form system helps us to know what to look for –
and how to tabulate it when we get it.   Although CB

tense-sign <u>shapes</u> are restricted to rather few 'classics',
CB tense <u>meanings</u> are 'common' enough to be useful: and
(sometimes with modifications) the framework here suggested
certainly works very well for a good many languages.
Perhaps we could devise a framework of the same general
form that would work for almost all?

In other sciences, we commonly proceed from 'induction'
to 'hypothesis' to 'experiment' to 'pattern' or 'law'.
In so doing, we try to maintain a one-symbol one-idea
approach, we try to make (or allow) only one item to vary
at a time, and we try to achieve as simple a pattern as
possible.   I believe that neither Doke nor Guthrie
succeeded in achieving this desirable end, partly because
their terminologies were in any case not 'one-symbol one-
idea', and partly because they either did not use all the
forces of analysis at their disposal (Guthrie attempting
to keep 'meaning' out, and Doke almost ignoring tone), or
used forces irrelevant to the analysis (Doke still basing
himself to far too great an extent on Latin grammar).
Specific examples of the results they obtained are to
hand, and I have cited and analysed them elsewhere. (See Appendix B)

I know only too well the danger of being oneself
caught, all unknowing, in the same net of magic as every
other witch-doctor - or witch, for matter of that.   My
desire is to let in more sweetness and light; and to
this extent I am of course on the side of the doctors.
I only hope I am not still in the magic circle of circular
argument, and that my kind of magic will prove itself to
be (a) more efficacious; (b) easier to learn and to apply;
and (c) <u>not</u> magic, and <u>not</u> circular at all, but straigh-
forward, 'right-line' science.

* * * * * * * * * * *

APPENDIX A

APPENDIX A

1.1. _Verb Prefixes_ with structural tones: object 'infixes'
in small type.

<pre>
(α) N-/-n-   (γ) U-/-ku-   (1) Á-(Hm) -mu-
(β) TU-/-tú-   (δ) MU-/-mu- (2) BÁ-   -bá-   (11) LÚ-   -lú-
                              (3) Ú-   -(g)ú-   (12) KÁ-   -ká-
(ρ) -(ɉ)í- Reflexive   (4) Í-   -(ɉ)í-   (13) TÚ-   -tú-
           (all classes)   (5) LÍ-   -lí-   (14) BÚ-   -bú-
                              (6) YÁ-   -yá-   (15) KÚ-   -kú-
                              (7) CÍ-   -cí-   (16) PÁ-   -pá-
                              (8) FÍ-   -rí-   (17) KÚ-   -kú-
                              (9) Í-   -í-   (18) MÚ-   -mú-
                             (10) SÍ-   -sí-
</pre>

1.2. _Tense signs:_

(i) pre-prefixal

a-´- all hypotheticals   néa-´-/níi-⁽⁾- ; núu-´- 06
ta-´- all neg. pasts & zeros   tá-`-   all neg. futures

(ii) pre-radical

	Zero	-CV-	-CVCVV-	-CVV-
ZERO	-Z- 01,05,06,H011 ˬZ- 801	-le- 02 ˬle- 101(b) -ka- 71,72 ˬka- 871,72 ˬsí-(a) 101(a) -sí-(b) all neg. relatives, <u>before</u> normal pre-rad. -cí- (for -LI only: -cílíi- exists in N.W. Bemba)	-kaléa- 73,74 -kalée- 873,74 -sílée- 103	-laó- 47,48 -lée- 03,04 -léa- H013,014 -leé- 8 03

		-V-	-VCV- (-VNCV-)	-VCVCVV- (-VNCVCVV-)	-VCVV-
-A-		-a- (1) 11,15	-alí- 12,16		-alée- 13,14
		-a- (2) neg. futures	-aka- neg.71,72	-akalée- neg.73,74	
		-VV-		*-VVCVV÷*	
		-aa- neg.51,52		-aalée- neg.53,54	
		-é- 41,42(51,52)	-ací- 31	-acílés- 33,34	-alíi- 22,22
					-alée- 23,24
			éku- imp.	-akulás- 07,08	-alás- 53,54
-I-	-i- (1) potentials	-ingé- PO11,012	-íngálés- Po13,014	
	-i- (2) neg.801	-ika- Neg.871	-íkalás- neg.873,74	-ilás- neg. 803,04
	-i- neg.802	-ika- neg.872	-	

(iii) post-radical (positive tenses)

	-ile	-e	-a
P	11; 05	-	HO11; 06
F	-	801, 871	-
D	12, 22.2	-	all other evens
zero	21, 22.1	-	all the rest

post-radical (negative tenses)

	-ile	-e	-a
P	11	01	15
F	05	-	-
D	12,22,02.2	-	all othereevens
O	802, 872	-	-
zero	21, 02.1	-	all the rest

1.3. Simplest radical shapes (all may be structurally H or L)

-CVC-	-CVN-	-CV-	-NV-	-V-
-CVVC-	-CVVN-	-VC-	-VN-	-C- (= -CV-)
-CVNC-		-VNC-		

1.4.   Commonest types of extensions (all are structurally L)

    -V-   -VVC-

    -VC-   -VCV-

    -VC-   -VNC-   -VCVC-   -VCVCVC-

2.1. SYNOPTIC MORPHOLOGY of single-word verb-forms

(a) finite verbs

    p   t   r   is minimal, but only occurs in the two
                        cases -LI, -TI.

    p   t   r   s   is minimal for all other radicals
                        (t of course may be zero)

Other possibilities are:

p t (o) r (e) s (1)   p t r s + (o) r (e) s (1)

s p t (o) r (e) s (1)   s p t r s + (o) r (e) s (1)

q p t (o) r (e) s (1)   q p t r s + (o) r (e) s (1)

q_n p t (o) r (e) s (1) q_n p t r s + (o) r (e) s (1)

p t_n t (o) r (e) s (1)   p t_n t r s + (o) r (e) s (1)

p t_n (o) r (e) s (1)   p t_n r s + (o) r (e) s (1)

(Any and all of the elements in brackets may be included or
omitted in all cases.)

(b) imperatives

    r s is minimal.   Other possibilities are:

r (e) s (1)

p r (e) s (1) ?(hybrid form)

o r (e) s (1)

s r (e) s (1)

s o r (e) s (1)

(c) verbo-pronominals

    pp_s t (o) r (e) s (1) pp_s t r s + (o) r (e) s (1)

    pp_o t (o) r (e) s (1) pp_o t r s + (o) r (e) s (1)

(1p)

    pp_s t_n t (o) r (e) s (1) pp_s t_n r s + (o) r (e) s (1)

    pp_o t_n t (o) (e) s (1) pp_o t_n^t r s + (o) r (e) s (1)

(d) verbo-nominals

    np r (e) s (1)   n p r s + (o) r (e) s (1)

    np r e s   np t r s + (o) r (e) s (1)

    np r s r s   np r s + t (o) r (e) s (1)

    np t (e) r (e) s (1)

APPENDIX B

APPENDIX B

As I indicated in my introduction, I have left my first two purposes to speak for themselves. They had to do with practical methodology, and if the methods have been successful the purposes have been achieved. There is nothing I can usefully add in the way of supporting arguments: the methods are their own arguments.

However, I also believe that these methods have by implication demonstrated the inadequacy or relative difficulty of other approaches that have been current among two major schools of Bantu linguistics for some time past. I do not wish to give the impression that I think I have proved the other approaches 'wrong', but I do feel they contain much that now seems otiose, unnecessarily laborious, and even a positive hindrance, inhibiting rather than helping the research worker (and the ordinary learner).

Now this is a weighty assertion, and the reader may well feel that some contrastive examples are called for. I did not include any such within the main body of the thesis, and what follows here is not to be regarded as a necessary part of my argument. It is simply a brief outline of those ideas and methods that the text-method can claim to have side-stepped or transmuted, and of the kind of results it has avoided. Almost every sentence should be thought of as being prefaced by some such phrase as, "It seems to me..." or "In my opinion..." So let the reader please excuse any passages that sound too 'categorical' or over-dogmatic.

*   *   *   *   *   *   *   *

First (it seems to me) certain parts of the terminology and approach of Professor Doke are over-classical, confused, and confusing: sometimes more than one label is used for the same thing, with the sinister implication that the user may genuinely believe there are in fact more 'entia' than there really are; and sometimes a single label is used when more than one entity is involved, suggesting that the user may have either deliberately conflated them or else not recognised their separate nature.

Again, Professor Doke's account of any Southern Bantu verb can be greatly simplified by using a framework similar to that on p.44[a], and an exposition of relatives and 'participals' similar to that on pp.150,152. Even though tones are mostly not given in his accounts of verbs in Southern Bantu Languages, it is possible to fill in quite a lot of each table in accordance with the system.   Certain concepts used by Doke then simply fall away.   They serve no useful purpose, but merely complicate matters unnecessarily. A few examples follow.

SBL page 196:   'Imm. Past   ndivonile
                 Perfect   ndithamile'

These are clearly the same tense (tense sign: z- -ile), with English common meaning naturally varying according to radical 'selected'.

ibid. page 197:   'it is usual, especially when the verb is not final in a sentence, to contract (!) the perfect stem, thus ndi-voni for ndi-vonile'.

This is simply a different form , for an odd-numbered tense.   There is no need to introduce the idea of 'contraction of the perfect'.

ibid. page 107: 'The Indicative Mood: Indefinite: ngalamba

Remote past: ngahamba'

Again, the same tense: again the difference lies in the actual meanings of the respective radicals, not in tense at all.

ibid. page 172: 'Past ndo-vhona

Pres.perf. of Stat.vb. ndoneta'

This looks like 'Translation Grammar'.

ibid. page 172: 'Venda has two forms of the simple present tense. The longer form, with formative -a- is used when no word follows the predicate'.

This is again an odd/even distinction: bound/unbound forms are different in shape.

It happens that we have one work parts of which are convenient for direct comparison (Doke: Textbook of Lamba Grammar 1938), and another (Doke: Southern Bantu Languages 1954), parts of which can be compared with the former so as to bring the whole operation into line with some of the latest information and attitudes in this school.

First let us note that Doke finds in Lamba (1938) virtually the same verb-form-divisions as he does in the Southern Bantu Languages (1954). The main divisions are these:-

(a) "Conjugations": For Lamba, Positive - Negative, together
with Relative[1] Positive (Relative Negative
he says is no different in Lamba from
Principal Negative - but since he doesn't
give a single example of a sentence that
could be a straight negative subject
relative[2], this is suspect.)

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[1] In a footnote to § 440, he points out that 'it would be
possible to regard this as a sub-mood to the indicative and
conditional', and later (eg. SBL) makes Relative a "Mood"
or a "sub-mood" to Participial.

[2] § 666 (ii): Aŵantu aŵataŵadite-milimo ... people who do
not work ... could be pronominal (in any event aŵataŵa-
isn't a principal negative form). § 666(iii): Imfumu
itaili... a chief who is not... is exactly parallel (itai-).
(Probably iitai- anyway.) § 668 (i): Aŵantu aŵo
tatulukutemwa is an object-relative - 'the people (whom) we
do not like. This is presumably tonally distinct from
'tatulukutemwa' principal negative.

(b) Moods: For Lamba, Indicative-Subjunctive (for Lamba occurring in principal positive "conjugation" only according to ß 298,[3] but ß 453 contradicts this, giving six subjunctive negative tenses.) - and Conditional. Later, and for other languages, he adds Potential, Participial, Relative as 'a variant of the Participial', Temporal (Xhosa) and Dependent (Venda): plus Hortative as a 'variant of the Subjunctive', and Contingent as a variant of the Conditional.

(c) Tenses: For Lamba, Remote Past - Immediate Past - Historic - Present - Habitual - Immediate Future - Remote Future.

(d) "Implications": Simple - Progressive - Exclusive.

(e) "Manners" (= Aspects):   Indefinite - Continuous - Perfect.

    I shall have cause to refer again to (a) "Conjugation"; meanwhile I would submit that (a) is not merely a misnomer, but in any case unnecessary. The positive-negative dichotomy doesn't really need a special cover-label of its own: verbs appear either as positives or negatives - (so the overall category is just 'verbs', if we really want one at all).

    Category (b) clearly has several different and somehow parallel members: but whether we should call the members by the cover-name 'Mood' depends on what kind of similarities and differences we discover between the members - and indeed whether a cover-name is needed for this set or not. (In the sister-dialect Bemba, we happen to bea able to distinguish the following form-function tense groups by means of one single touchstone:-

(i) Main sentence   (ii) relative sentence/clause

(iii) subjunctive sentence/clause   (iv) hypothetical sentence

(v) suppositional (potential) sentence   (vi) anterior clause in narrative.

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[3]Seven of the nine positive subjunctive tenses are "identical with" the indicative tenses in Lamba: this seems unlikely - they are probably distinguished by tones, just as in Bemba.

The single distinguishing device was simply that of
'what is the sign of the negative?' Making our formal
grouping thus, we have also made ourselves a set of
functional (semantic-syntactical) groups: this may be
partly luck, but whatever it may be, it's certainly con-
vincing.)

In Lamba, Doke labels one set 'conditionals': but
in §§ 719, 720 and 721 he shows that these are scarcely
ever used in conditional sentences. I suppose they get
called 'conditionals' because he has chosen to translate
them by the English 'should/would', and has remembered that
these words are often associated with tenses (also wrongly)
called 'conditionals' in English? But surely 'conditional'
must imply the posing of a condition: an IF or a PROVIDED
THAT, or something of the sort? That 'should/would' was
no accident either: in SBL we have (p.74) "In addition
to their conditional meaning (I should etc..)..."; and we
are told that Venda's "Potential" "tends more to the con-
ditional than the pure potential ... 'I may see', 'I might
see', 'I could see' rather than 'I can see'." I think
probably the -nga- -a group in Lamba would be better
labelled 'Suppositional' or 'Potential' - but it could be
that they might equally well be a section of the 'Sub-
junctives'?

'Relative' as we have seen does later get shifted from
the 'Conjugation' to the 'Mood' Category. ('Participial'
as such gets no mention for Lamba, and there seems to be
no separate formal category like it in Bemba either.)
There often seems to be a difficulty in clearly distinguishing
these two: if 'Participial' has a separate validity in a
given language, then formal characteristics should
distinguish it absolutely.

'Hypothetical' is not one of Doke's normal 'mood' categories[1], but I think it is a useful one to add for those Bantu languages having seperate tense-forms for unfulfilled/impossible conditions.   Doke has a similar concept 'Contingent' for Ng.

'Hortative' is nearly always unnecessary, being simply Subjunctive plus a pre-prefixal augment such as ka- or naa- or si- : and if a language has (say) four such augments, do we then have to invent three extra terms like 'Hortative'?

'Temporal' and 'Dependent' are special ad hoc terms used for Xhosa and Venda: I shall return to them later.

If Category (c) is to be a self-consistent group, it should contain members of only one kind of abstract class - to judge by such terms as Past, Present, Future, these should contain nothing but time-reference: in which case 'Historic' and 'Habitual' are surely out of place? 'Historic' has to do with narrative and could have any time-reference in the story; and 'Habitual' implies more than just 'present'.   You could have: "we habitually used to do, do and will do."

The 'implications' (d) and 'manners (e) would certainly be reduced to one category in Lamba, along the lines we have seen in Bemba (we have a 'two-label-for-one-entity' situation in TLG); and as far as the evidence presented in SBL is concerned, the same might go for the Nguni, Sotho, Tsonga, Venda and Shona groups - always provided that we stick to single-word forms.   Once we begin to introduce two- or three-word forms, we naturally find ourselves having to create new categories to embrace all the further meanings

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[1]In Lamba it is apparently achieved by the formula (nga + vb, nga + vb) - see § 720 of TLG.

they carry.   'Until', 'almost', 'in-the-end', 'tend',
'immediately', 'continually', 'again', 'next' and all
the rest, are just as valid as separate categories as are
'still', 'no longer', 'now' or 'not yet'.   There seems
no adequate reason for creating the categories of
'Exclusive' or 'Progressive' unless they turn up in
single-word forms - in which case they could be just as
well regarded as aspects like 'event-in-progress' or
'event-with-effects-that-still-persist'.   Further, there
seems to be no method of distinguishing the blankness
behind a set of tenses which (a) say nothing about whether
an action did or did not go on before (or start after) the
time in question - ('simple') - and (b) say nothing about
the action's completeness, non-completeness, continuousness,
or non-continuousness - ('indefinite').[1]   In other words,
we have one range 'continuous, perfect and a non-indicator';
we may in some languages have another range 'progressive,
exclusive and another non-indicator';   with no semantic
or formal distinction between the two non-indicators - so
how to keep them apart?

        We are thus reduced to the normal Aspect-categories
of Simple, Continuous, Perfect;   and in some languages,
'Exclusive' and 'Progressive' (though these labels them-
selves are not very happy);   in other languages, we may
very well find others - but let us always be sure they are
built out of one-word forms and that all members bear the
same semantic (and if possible, formal) characteristics.

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[1] A terrible doubt is introduced into our minds on p. 73 of
SBL.   "A further tense distinction ... between the
definite and the indefinite, depending in some cases upon
the employment of a definite or an indefinite object."
(my italics):   this kind of thing is most disconcerting -
"Thus in Ng.(Z) ngibona is used when a descriptive extension
or an indefinite object follows, eg. ngibona umuntu (I see a
person), ngibona kabi (I see badly) while ngibona (the form
is also used for emphasis, eg. ngiyabona umuntu (I do see a
person), is used when no descriptive follows, or when the
object is definite, in which case an object-concord is also
employed, eg. ngiyambona umuntu (I see the person). Similar
distinctions exist between the immediate past forms ngibonile
(I saw: def.) and ngiboné (I saw: indef.).   In Tg.So.,

Footnote continued

and Ve. similar distinctions of form are found, but only
in the present.[2]   eg. Tg. ndi-v̆ons and nda-v̆ons, So. (N)
ke-bôns and ke-a-bôns, Ve. ndi-vhons and ndi-a-vhons.
In these groups however the nature of the object or ex-
tension does not appear to be of importance, only the fact
of its presence, the indefinite forms being used when
there is an object or extension, and the definite forms
when there is none."   This is in fact just the old odd/
even or bound/unbound or Sandhi/Absolute distinction: but
when we have got used to using 'Indefinite' as an Aspect-
label for 'unspecified' as to aspect, it is unnerving to
find the same label, used of the same tenses, being used
with another meaning entirely (this time having to do
with emphasis, bonding, or a syntactical relation).[3]

Another pair of cases of 'one label', more than one
entity' (quite different in kind) are found (i) under Ng.

SBL has:

Subjunctive

(a) Pos.Present	~	-e	Neg.		-nga	-i
(b) Pos.Future	-bo	-a	Neg.		-ngabo-	-i
(c) Pos.Past	-a	-a	Neg.	a-	-nga	-e

with meanings that seem to suggest it is more like a
narrative past - " ... and I ... " and a negative that looks
somewhat out-of-line.   (c) probably shouldn't be classed
as subjunctive at all.

(ii) under So. something of the same:-

Subjunctive

(a) Pos.Present		-e	Neg.	-se-	-e
(b) Perfect		-Xe	Neg.	NIL	
(c) Past	-a-	-a	Neg.	NIL	

For the latter two, no negatives, and meanings of 'a type
of habitual action' and 'a past sequence': so (b) and (c)
don't seem to belong.

[2]If in the present, with an elementary distinction such
as "zero and -a- pre-radical tense signs", then it is
highly likely that the same pairing occurs in other tenses,
only with the distinction 'confined' to tone (which is of
course just as important a difference as 'zero and -a-
tense signs').

[3]See also SBL p. 71, footnote 1 - where the terminology
was changed yet again: that time it was 'definite' and
'axiomatic'!   The difference between 'indefinite' and
'definite' is surely too great to be ignored?

Let us now consider a dispute which arose between
two scholars using labels from among the Doke list: I
think this serves to illustrate my contention that unclear
terminology, or discrepancies between the number of labels
and the number of supposedly corresponding *entia*, can be
productive of unnecessary difficulty.

Doke (BLT) gave as his definition of stative verbs:
'... those which may be used to indicate a state already
achieved and still persisting', and follows up with some
instances from Zulu.   This is *one* of the sources of
trouble: it is not clear whether these verbs are 'stative'
because of some common inherent semantic quality (inherent
in the radicals themselves, that is), or whether their
'stative' nature is perceptible only in the meanings of
certain tenses, or indeed whether there is a formal
category 'stative' recognisable by some signal such as
'certain radicals only appear in association with certain
tense-signs: since a change of *state* is always implied
by such verbs, we call them 'stative verbs'.'   Fortune
himself (1949) evidently felt uneasy, too: he says –
CivS,

'Although the entry is headed Stative verbs, the
burden of the note is about the stative *use* of certain
verbs in stative *tenses*. It is shown that there is also
a non-stative use of these verbs...'   This is why Fortune
feels it would be better to call 'these verbs' 'inchoative'.
For him, 'these verbs' are 'a class of verb stems in Bantu
languages which have as their common characteristic the
idea of *becoming*'. This is at least forthright.[1]   For
'Verb-stems' read 'radicals' and insert '(in English)'
before '*becoming*', and we would have a reasonably tight
definition.

[1] See next page

Footnote from previous page

[1]I am more than a little dubious about the 'idea of becoming'
as expressed in Fortune's actual examples: I don't think
he has got it at all clear in his own mind. In the first
place he talks of 'process or becoming' as if they were
the same: but essentially the act of becoming in this
context is instantaneous - first you aren't, then you are,
you have become: - while process always must imply taking
time over something.   Hence 'inchoative' is precisely
not the kind of term to use, because 'becoming, tending
towards the completed state of what they imply' is precisely
what they don't.   At one moment you are not 'stood-up',
at another moment you are - you have changed state, at an
instant in time.   That is why you do not often use a
continuous process tense with these verbs: there is no
question of 'tending'.   And certainly no 'antecedent
process' - you do not gradually go through an antecedent
process tending towards the completed state of 'having
become seated'.   In the case of 'becoming tired', we are
on somewhat better ground - we do detect a process of
'tiring', and we could use a continuous process tense to
express eg. "I am getting tired": but even so, Bantu
still regards the change from 'untired' to 'tired' as a
point-change.   So you would use 03/04 for "I am getting
tired", and 41/42 or 05/06 for "I am tired" (= "I have
got tired").   This leads me to my second and more
technical point.   I submit that kuneta, kugara, kuona
and kuenda could well be regarded as four different types:
first, kuneta might have the possibility of process leading
to change of state, though its tense-selection for changed-
state is obviously the same asthat of kugara, which
clearly has no process idea at all.   The fact that they d
do make similar tense selections for changed-state already
argues that Bantu regards them as in some way similar,
and it seems that their similarity must reside in the
change-of-state component.   If Fortune's 'antecedent
process' were a differential factor, then kuneta has it
and kugara hasn't.   HOwever, let us by all means accept
the Bantu view that they're somehow the same, and agreed
that kuneta can be conveniently translated "(to) become
tired", and kugara "(to) become seated", though the first
'become' is different in meaning from the second.

But then Fortune goes on to say: "This idea of
(process (sic) or) becoming emerges very well when these
verbs are compared with other verb stems in which the
idea of action is expressed without any idea of antecedent
process.   For example, the infinitive kuona means to see,
kuenda, to go."   Now of course I cannot be sure about
the exact meaning of the Shona, but in Bemba and several
other languages having tenses normally described as
'immediate past' and 'present continuous' (my 41/42 and
03/04) the radical *-ÓN- , *-MÓN- or *-BÓN ($\simeq$ see)
is precisely not among those which use 03/04 for the
ordinary 'present' process-action - it used 41/42.   In
other words, it does not mean 'see', but something
rather like 'get to see': naamona ... (41) then means
"I have (just now) come to see... (and can still see)"
and is the ordinary way of saying "I see"; whereas
ndeemona (04) means "I am (in the process of) seeing or
looking at.... " and is nothing like as frequent for this
reason.

Footnote continued:

Contrast this with Fortune's other example, kuenda, go:
the Bemba ndéééndá (04) means "I am travelling", while
naaenda (42) is comparatively infrequent, usually having
a meaning rather tending to (52) (≠ "I'm off") . . The
fact is that the 'idea of becoming' is simply not enough.
-SEND- 'get to carry' uses 05/06 as its normal 'present',
-MÓN- 'get to see' uses 41/42, and a real honest process
verb like -BÓMB- 'work' uses 03/04 ("I am working ... now,
at this moment, these days, in this period of history:"the
zero is extensible). The distinctions are 'instantaneous
act resulting in change of state' (two varieties, one
quicker than the other (-MÓN≯ as against -SEND-)); and
'continuous process, act-in-progress leading to change of
state', and finally the 'process-verb' par excellence.

End of footnote

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(The first alteration is necessary because a stem may in

itself carry signs of tense such as -ile or -e or -i:

the second is necessary because we cannot possibly say

what 'idea' there is in common between eg. kuneta and

kugara in themselves except by listing contexts of

situation in which they appear to make special selections

from the available tenses (each making the same selection

in comparable contexts of situation, that selection being

different from that which other verbs make)).

If we say 'in English', however, we are free to use the

definition as Fortune in fact uses it. The definition

isclearly a semantic one; and what is more, depends on

translation into English. The usefulness of a category

set up by such means might be expected to prove dubious:

it is not derived from the language under analysis, but

from somewhere else - so it is, to say the least, otiose,

if not positively misleading, troublesome and productive

of useless argument.

Fortune's lists of Finite Forms are largely unhelpful:

ndaneta is parallelled by ndafemba, ndakaneta is parallelled

by ndakafemba, and so on. The only point at which we think

we may be 'on to something' is when we hear that six verbs

(-mir-, -nyarar-, -gar-, -rar-, -vat- and -zar-) have a

series of 'perfect stems' to themselves (-mire, -nyerere, -gere, -rere, #vere and -zere), <u>and</u> that it happens that they all fit into Fortune's definition of 'inchoative'. These six, and these only, could genuinely be split off from all other radicals in 'Shona', as having a special tense sign of their own, viz. -Z- -X; where -Z- = zero pre-radical, and -X = a regular phonetic modification of radical vowel and subsequent syllables (suggesting a process very similar to the intrusion of the #-ile past tense suffix into certain forms of Bemba radicals). There is nothing to suggest that it is <u>because</u> they are 'inchoative' that they behave like this, however: I would very much like to know if there is even one other Shona verb with such behaviour that <u>doesn't</u> fit the Fortune inchoative definition - there is no reason why there shouldn't be, to judge from other languages!

Fortune feels that Westphal's use of the term Stative (ıMcß) is 'misleading, because it conveys the idea that these verbs are used exclusively in the <u>stative or perfect tenses</u>' (my italics). He points out that 'it is the perfect aspect of the inchoative verb which has been called its stative tense and even led to the whole class of inchoative verbs being called stative...' If only they <u>were</u> used exclusively in the perfect tenses, we would certainly have good grounds for setting up the category, of course: since on Fortune's own showing, every tense sign <u>can</u> be associated with his general class of 'inchoatives' (a) the legitimacy, and (b) the value (even if illegitimate) of the category are both question-able. (See also p. 246)

(scz)

Which is what Westphal/feels too: but let us examine
the way he says it, and how he actually goes about his
analysis.   He defines 'stative' as 'no more than a stem
which 'selects' a certain series of tenses out of the
selector system'. (By the singularly ill-chosen term
'selector system' he means 'table of tenses', it seems.)
Well, that's clear enough: but are there such stems?
Westphal shows that in Venda - dzula (bec. seated) appears
in every one of his A.1. 2, 3; B.1, 2, 3; and C.1, 2, 3
tenses with tense signs identical to those associated with
-shuma (work).   In Zulu, he introduces the concept of
'stative stems':   these turn out to be nothing more nor
less than 'radical + *-ile' (cf. -hamb-, -hambile).
Westphal seems to think that there is one entity -hamba
meaning 'go', and another entity -hambile, meaning 'be
gone':   this is of course translation-grammar at its most
dangerous.   There appears to be no distinction in
'selectivity' in Zulu either.   Any radical can appear
with any and all of the tense signs.   Westphal says "in
Zulu it is possible to list stative stems since they have
a distinctive behaviour, and never occur without -ile or
a suffix mutually exclusive with -ile."   All that this
means is that we can list every radical in the language
(but for one or two genuine defectives, I suppose) with
the past tense suffix it uses for certain past tenses.
(In Bemba, they would be tenses 11, 12; 21; and 05.)
Nothing has yet been isolated that has legitimate formal
title to the term 'stative'.

If we go back for a moment to Westphal's earlier
article (IMCB), we find the situation is no better:
here we have, "There are numerous stative stems in Bantu,

for example:

Zulu: -khathele, -lambele, -omile, -hlezi, -imi, -suthi

Sotho: -khatetsi, -lapîle, -nyorîlwe, -lûtsi, -emi, -khutsi

Venda: -neta,   -   -   -dzula, -ima, -fura

   (be tired, be hungry, be thirsty, be seated, stand, be replete)'

There is nothing about these Venda 'stems' to differentiate them from any other Venda 'stems' of the general shape -CVC-a. It also appears that eg. (Z)-hlala and (S)-lûla exist in their own right, so that eg. (Z)-hlezi and (S)-lûtsi can be much more simply classed along with eg. (Z)-hambile and (S)-samaîle - BUT the accepted English translations of full forms ending in -hlezi, -lûtsi etc. have different English tenses from those of full forms ending in -hambile, -samaîle etc. And so we argue that one group is stative and the other non-stative, <u>by appealing to their meaning in English</u>.

From both articles, all that we can legitimately deduce is that a radical eg. -LAMB- or -NET- tends to associate more often with certain tense signs, and a radical eg. -HAMB- or -FAMB- tends to associate more often with others. Westphal should take more notice of his own statement (AS IX 3): "That this state is best translated into <u>English</u> by 'be...' and the action by 'become' <u>is irrelevant</u>..." (my italics). If we assume (say) "...-gere is a 'stative stem'," on what grounds do we do so? That it carries a certain meaning (in its own language, not English) - or that it is of a certain shape? If the former, then -nyagula carries the same sort of meaning in <u>its</u> language, and so must be described as a 'stative': but we are told " -nyagula is not a stative in Zulu." Turning to Fortune - if we assume that -neta is a stative (or

inchoative) stem, on what grounds do we do so? Presumably because of its 'radical idea of becoming'; but although Fortune points out that "There is one conjugation to which the inchoative or non-inchoative verb adapts itself" (sic), he still retains enough of the old attitude to put ndanets under "The Present Tenses ... Perfect Aspect ... of State," while ndafembs goes under "The Recent Past Tense ... Indefinite Aspect."

Similarly, Westphal's first series with -dzul- (A2, B2, C2) could presumably just as easily be translated as "he has become seated" (= is sitting), "He had become seated" (= was sitting) etc., - in which case there would be no good reason for having a first and a second series at all. In fact, there isn't any real difference between the Westphal and the Fortune approaches: they only differ in conclusions - Westphal says we should talk of two separate 'conjugations', and Fortune says this isn't necessary. Agreed, so far, whole-heartedly, with Fortune: but the simplification could be carried much further.

The plethora of two and three word verb-forms he gives unfortunately serves to confuse the issue.[1]

[1] He himself finds it necessary to say such things as "I have not yet been able to find the positive form of the exclusive continuous. With regard to the exclusive perfects, the form given for the non-inchoative verb is the perfect aspect of action, that given for the inchoative verb is the perfect of state. In the latter instance, my informant offered alternatives for the positive form such as ndanets kare, zino ndanets, ie. the simple perfect + an adverbial. However, he agreed to the form I have given and I think it will serve." This is a direct result of making an English set of pigeon-holes and then trying to find Shona forms to fill them all: his negatives are often not the negatives of the corresponding positives, either in Shona or English: the (mis)use of the English 'now' in "Now I get tired" (for presumably: "I am getting tired", "I am tiring" (my O3/O4) leads to "Now I am tired", which the informant was obviously translating when he said "ndanets kare" or "zino ndanets"; and the form Fortune got him to agree with (ndazonets) has nowhere in his lists a corresponding form ndazofembs (which surely must on his own showing exist) - after all, in another context he quotes zino ndazoends). In this one short section, we see the tell-tale marks of "translation-grammar" confirmed.

In fine, what they should have been deciding is what they both mean by 'conjugation'.

Now, does Doke himself offer any help here? Doke always says there are two Bantu conjugations, 'positive' and 'negative' - no, I think it would be much better to forget the word altogether!

'Conjugation', in the classical and modern languages of Europe, always means something quite different from the Doke or the Westphal definitions - it refers to recognisably different classes of verbs, each class having the same sets of members (members such as 'Persons': 'Active-Passive': 'Indicative-Subjunctive': 'Past-Present-Future': 'Continuous-Simple-Perfective'), and each being recognisable by its different shapes (amo, amor, amem, amar, as against moneo, moneor, moneam, monear, etc.) If once we admit such a distinction between conjugations as positive-negative, then we immediately open the door to active-passive conjugations, indicative-subjunctive conjugations, and even singular-plural conjugations. Or, as we have seen above, stative and non-stative conjugations!! The very use of the word is silly in Bantu: for Bantu verbs, all we can say is that we have one gigantic formal scatter, including all verbs with the familiar endings *-a, *-ile (past), *-e (subj.), and some-times *-i (neg.); then, in Bemba for example, another group

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Footnote continued from previous page: If we need further proof, we may quote "With regard to non-inchoative verbs in their past forms, the prima facie meaning is, of course, that of past tense. In the case of the recent past form, however, it seems that often the meaning is ambivalent. Thus ndauya can mean 'I came' or 'I am come' - either a past indefinite or a present perfect. This is particularly the case in the participial mood where different conjunctives are used according to the meaning, either present perfect or past indefinite. Thus kana ndauya (when I have come); but za ndauya (when I came)".

Different conjunctives are used according to the meaning of the verb? This is fantastic: we translate the verb in two different ways, then we say it selects different intro-ductory particles, za and kana, according to which meaning the verb has in English!! What is in fact different is of course the za and the kana. ndauya continues to 'mean' ndauya, in all cases. The English is utterly irrelevant.

(or two groups) containing *-LI, *-TI (which don't have
the possibility of *-a, *-ile, *-e and of course *-i
(neg.)); and another consisting of *-BÁ- (which has *-a
*-e, and sometimes *-i, but not *-ile).   In some languages
there are one or two more such verbs often called defectives
(because they lack certain tenses that the main body
(conjugation!) of verbs normally possesses):   this is
again poor piece of terminology, because very often these
verbs do have certain tenses that the main body does not -
is the main body therefore in those cases also defective
with respect to the 'defectives'?)

From the same (Westphal-Fortune) articles, we can
cull still/further examples of how unnecessary terms can
lead observers astray (or into unnecessary argument with
each other).   "Predicative," says Westphal - "The smallest
unit of a sentence."   What about "he is calling" in Venda?
Or worse still: "Call!" ?   'Subject' and 'predicate' are
logical terms, and not grammatical terms at all: and
'predicative' leads naturally to all manner of irrelevant
bases for comparison and contrast, all of which predispose
the investigator to think along certain lines which are
themselves pre-suggested from his own mother-tongue.   Thus
"what we recognise as 'tense' behaviour is common to all
predicatives" is flatly untrue, even if we do accept the
term.   In sentences such as "It wasn't yours they took,
it was mine";   "It isn't yours they are taking, it's mine",
and "It won't be yours they'll take, it'll be mine" -
'it was mine', 'it's mine', and 'It'll be mine' are usually
indistinguishable in Bantu: in other words, timeless,
tenseless, moodless, aspectless - taking on translation-
coloration in English from whatever there may be in the
adjacent verb.   'Predicative' is a nuisance-term, serving

only to <u>create</u> attitudes of mind, which are always more
likely to be wrong than right, <u>because</u> they are unnecessary.

The whole paradigm given by Fortune is in and for itself
another example: the labels (eg. 'Exclusive implication,
indefinite aspect') necesssrily produce an English-
translation framework, into which there are fitted various
one-word, two-word, and three-word Shona verb forms. Of
course, if we made an even wider sweep among our auxiliaries
(or 'deficient verbs') we could produce an even bigger
paradigmatic bundle.   But what relevance the various
forms could then (or here) be said to have to each other
I don't know: the technique is just messy, and confusing -
above all things <u>it's not Shona</u>: that is to say, it's
not letting the Shona speak for itself.

But - it has been laid down (in BLT) that ye shall
find:- in the Indicative Mood - Present, Recent Past,
Past, Future and Remote Future tenses; each with Simple,
Progressive and Exclusive Implications; and each with
Indefinite, Continuous and Perfect Aspects: in the
Subjunctive Mood, another set of tenses, implications and
aspects; in the Potential Mood, yet another; in the
Hortative, Participial, Relative, Conditional and Con-
tingent, Temporal and Dependent Moods, various others.

So - we must find them, and group them in just this
way, irrespective of the way the language itself has
grouped them for us; or indeed irrespective of whether
one form does two or more jobs, or two or more forms must
<u>apparently</u> be fitted into one pigeon-hole.

And the final disadvantage lies in the labels them-
selves: they may easily be misunderstood by 'strangers'
because they utilise familiar words in unfamiliar ways.
For instance - 'simple' has usually been applied to what
Doke calls 'indefinite' (and 'indefinite' is an odd sort
of word to apply to a tense that translates as "I walked"
(ndafamba)).

Fortune defines 'indefinite' as the aspect "in which nothing
is said about the completeness or non-completeness, continuous-
ness or non-continuousness of the action." But surely, 'I
walked' says a great deal about the completeness of the
action. That's the whole point, in fact: the action has
been completed. And since 'continuous' is the term applied
by this school to another aspect, we could scarcely expect
the 'indefinite' aspect to say anything about 'continuousness' !)
The Doke 'simple' is an 'implication' - nothing whatev is said
about whether the action did or did not go on before the
time in question. Very well: but the 'progressive' impli-
cation doesn't tell us that something was, is, or will be in
progress at the time in question - it tells us that something
had been, has been or will have been in progress, prior to the
time in question: so it deals (quite arbitrarily) with
anteriority as well as progressive action. Finally, the
'exclusive' implication tells us that something was not, has
not been, or will not have been in progress prior to the
time in question, but started, starts, or will start from
that time. So that it deals with the inception of an action
or state, not the excluding of something, after all.

The 'Potential Mood' often turns out to be nothing
more nor less than a device to indicate ability to act - and
not potentiality, or action in potentia. 'Hortative' is
just plain unnecessary. The 'Temporal Mood' of Xhosa is
used to express an action preceding that of the main verb:
not, as you might suppose, an action occurring 'in time',
or 'at a specific time' (which is what 'temporal' would
normally imply). And the 'Participial Mood' is "so called
because its forms have inter alia meanings and functions
akin to those of the participles of other languages." All
too frequently we find that the examples of this mood are

in fact only very clumsily translated by participles,
and that very often it would be much more aptly called
'Relative' ('Tenses in the Relative Mood', or just
'Relative tenses').

Quite another level at which Doke's terminology
seems unnecessarily complex, and Latinesque, is that
of IMPORT.   This naturally has much to do with syntax
and therefore falls partly outside the scope of the
present discussion, but since single-word forms are
affected in their frequency-"choice" of tenses by the
'import' of their radicals, and since the terms in
question are illustrative of this same point (of multi-
plying entia), we may as well take a look at them:-

It is not clear from SBL, p.66, para 3, whether
verbs 'needing' a given expression 'to complete their
action' actually must have it, or whether they can do
without it.   However this may be, the IMPORT types
enumerated are:-

1. Intransitive (self-contained)(incl.stative & neuter)
2. Transitive (needing obj.)(incl.caus.& appl)"for sy/sg"
3. Locative (needing loc.adv.)(incl.appl.motion) "to/from/
                                            at sy/sg/sw"
4. Agentive (needing ag.adv.)(incl.pass) "by sy"
5. Conjunctive (needing conj.exp.)(incl.recipr.) "* na"
6. Instrumental (needing inst.adv.)(by 'meaning' only)
                       "by sg", "like sg", "with sg/sy"

These seem to me to be no different from 'English'
(ie. Latin) labels.

(1) and (2) could be applied to Bemba as they stand,
though I find it difficult (and indeed unprofitable) to
insist on this division.   Type (2) especially, 'shades'
from 'highly transitive' to 'near-transitive', and may
be regarded as including some verbs from Doke's type
(3), and (6).

'Locative' sounds somehow 'over-stationary' to me.
'Agentive' is surely not what the verbs in this category
are: 'he was seen' does not suggest that the verb is
agentive.

'Conjunctive' - a term used elsewhere for something
quite different in the verb structure.

'Instrumental' sounds as if it should just go with
'Agentive' (written by me: written by hand: written in
(by means of) ink or a pen). But it doesn't. 'Instru-
mental' adverbs may be (quite incredibly) eg. 'quickly',
'carefully', 'tomorrow'; 'on purpose'; 'on horseback';
'by baboons', 'about cattle' - and so on.

I would hold, then, that Doke's terminology (creating
its own approach), and his approach (creating its own
terminology) both engender difficulties and obscurities,
misunderstandings and differences of opinion, where none
need exist. By gratuitously multiplying 'entia' (or,
more precisely, labels, which automatically take on the
quality of 'entia') it seems to me that he confuses both
himself and his followers. If we speak of tense 06, we
know immediately that we mean 'a main-sentence positive
indicative tense referring to a zero-time event or action,
of which the effects still persist or matter, weakly bound
to the following word, hence with emphasis on the verb,
and capable of being used at sentence-end'. Whereas in
SBL we have: "ndi-vonile (I have seen) Imm. Past" and
"ndi-thamile (I am seated) Perfect"; and "The present
perfect is the same in form as the immediate past, but is
used with stative verbs. The two present tenses differ
in function... It is usual, especially when the verb
is not final in a sentence, to contract the perfect stem,
thus ndi-voni for ndi-vonile." Which is confused, con-
fusing, and (with its last 'to contract') over-burdensome
to the learner. (Noone 'contracts' anything - in this
language, tense 05 is -z- -i, tense 06 is -z- -ile.)

Here, then, is one type of simplification achieved
by the present method of exposition: simplification in
the sense of "reduction in the number of 'entia'", and
hence reduction of overlapping and repetition, or of
multiplicity of labels for single 'entia'. It is a
straightforward simplification, consisting merely in
moving parts of the verb-tabulation about so that all
identical forms turn up in the same pigeon-hole, and then
giving each pigeon-hole one label and one label only -
preferebly a two/three/four dimensional numerical label
(with no 'loaded' words in it, that is). Far more data
can be and have been accommodated (and fully accounted for)
by means of far fewer labels; the exposition is shortened;
and the task of the pupil made much easier - he can grasp
the whole system entire, as a multi-dimensional table.

<p style="text-align:center">*　　*　　*　　*　　*</p>

The other major English-speaking school of Bantu
linguistics insists on the 'formal', and claims (or claimed?)
to be unconcerned with 'meaning' and 'shape' (while in fact
using both).

Now, although Professor Guthrie's approach has always
seemed to me to be much less Latinesque, a good deal
clearer, and far more 'scientific', it has I believe
suffered very greatly from the deliberate exclusion (or
attempted and averred exclusion) of 'meaning' as a gram-
matical category. Here I hope I have proved that meaning
is more than 'just a tool to the grammarian'; it is
itself a grammatical category. If we insist exaggeratedly
on 'form' the resultant cut-and-dried (= dead!) presen-
tation of verbal systems is just as unhelpful and
uninformative as Doke's is confusing. Through its own
'rigour' (or imperceptive, mechanical steam-rollering),

it is apt to lead to actual errors, either of commission
or omission.   Professor Guthrie's apparently so-very-
formal analysis, was in fact deeply concerned with meaning
and shape, but not deeply enough or consciously enough -
it never at any point excluded meaning altogether, and
was always dependent on 'shapes'.

Indeed, certain of the distinctions made as a result
of over-using 'shape' (not 'form'!) as a touchstone are
merely pointless and time-wasting. (See below: what
practical purpose is served by dividing verb tenses only
according as they have 'more than one tone-pattern', or
'hgi 'high tone on prefix'?)

Form and meaning (and sometimes even shape and
meaning) are ultimately indissociable, each serving to
illuminate the analysis of the other.   And such terms as
'grammatical' and 'lexical' are very useful servants at
times, but they can be very dangerous masters indeed.
Let us examine some specific examples in detail.

Guthrie (1949, roneo lecture notes) said: "Grammatical
form in Bantu is not concerned with meaning or shape."
His criteria for differentiating the parts of speech,
or, as he put it on another occasion (roneo notes to a
paper given before the R.Philol.Soc. in 1949), for
'establishing the grammatical form of a word'? are:

(1)   nature of elements of the word

(2)   commutability of elements of the word

(3)   capacity of the word for combination with other
      elements

(4)   behaviour in context of the word (= gr.function)
      (Cyclostyled notes for lectures and for R.Phil.Soc)

What is the practical result of this attitude? Dr.Guthrie
calls specific attention to "the lack of correlation
between form and meaning in the verb;" basing himself on

his four criteria cited above, he lists the positive
tenses in Bemba as follows (DCI, § 222):-

(a) Tenses with more than one tone-pattern (my numbers
    in brackets):

Guthrie No.	1	-a- -ílé	(11)
	2	-a- -á	(15)
	3	-á- -ile	(21)
	4	-á- -a[1]	(41)
	5	- -ile	(05)
	6	- -a	(01)
	7	-léé- -a	(03)

(8 is a tense of -LI)

	9	-ácí- -a	(31)
	10	-ácíláá- -a	(33)
	11	-aléé- -a	(13)
	12	-áléé- -a	(23)
	13	-áláá- -a	(53)
	14	-ékuláá- -a	(57)
	15	-ka- -a	(71)
	16	-kaláá- -a	(73)
	17	-acíííí- -a[1]
	18	-cíííí- -a[1]
	19	-íngá- -a	(071)
	20	-íngáláá- -a	(073)

[1] Non-existent in Central Bemba.

(b) Tenses with only one tone-pattern:

Set (1)

21	alí- -ílé	(12)	26	-la- -a	(02)
22	alí- -á	(16)	27	-léé- -á	(04)
23	-álíí- -a	(22)	28	-aí- -a	(101.1)
24	-a- -á	(42)	29	-cí- -a[1]	(said by all my inform-
					ants to be merely
					'children's speech'
					(-cí- for -ʃí-)
			30	-la- -a	(101.2)

[1] Non-existent in Central Bemba.

Set (11)   (High tone on prefix)

31	- -é	(S 01)
32	-leé- -a	(S 03)
33	-ka- -é	(S 71)
34	-kaléé- -a	(S 73)
35	·a- -á	(011)
36	a- -láá- -a	(013)

Missing are my 103; 14, 24, 34, 07, 54, 58, 72, 74;
072, 074; S 04, S 74, 014[1], and all the -ku- tenses (my
13/14 -ku-, 03/04 -ku-, S 03/04 -ku-, 57/58 -ku-, and
73/74 -ku-).

Of these, 103 and 07 (and the -ku- tenses) Guthrie
merely had not observed.   But all the others missing are
comparable to 04, which he <u>did</u> record (his 27): what is
more, he did not exactly ignore them all, as we shall see.
He simply did not see th into the parallels between them
and other pairs, because his 'System' did not encourage
such insight.

Failure to use 'meaning' as a criterion for sorting
purposes led first to an entirely unhelpful system of
numbering: the student is therefore constrained perhaps
to feel differences where none in fact occur, and certainly
to ignore similarities that would have been clarifying.

Next it led to the ignoring of whole series of tenses:
had Dr. Guthrie used 'meaning' (and had he seen the true
significance of 04 (his 27)) he could not possibly have
failed to spot and identify a further dozen or so; and
this might well have forced the correct identification of
the differences between other pairs.

Then, because he had not classified and sorted by
meaning, he had to invent awkward tonal rules to account
for eg. certain 'high' prefixes (which we now see to be

[1]Similar lacunae occur in Guthrie's list of the negatives.

all determined by ta - of the past) and certain 'low'
prefixes (which are all determined by ta - of the future.
Here, and in many other cases, the structural analysis
could have been greatly helped by having recourse to
meaning. Dr.Guthrie, having turned his back on such aid
(for this purpose at any rate), had to create 'entia' that
are cumbersome (and sometimes chimerical).

Finally, because he has still not allowed form and
meaning together to help him construct an interlocking,
self-analysing and self-confirming table of tenses, he
makes several gross errors of interpretation of meanings
of particular tenses. This could have (and perhaps would
have) been avoided if 'similars' had called more attention
to themselves (eg. by being in same columns, or lines, as
in the present tabular pattern). For example, he con-
cludes that, as pairs, his (1)/(21), (2)/(22), (3)/(33)[1]

> "have very little difference in the basic meaning
> expressed by the two members of each pair. In general
> the first member is used when it is the circumstances
> of an event that are being indicated, but the second
> when it is the mere occurrence of the fact itself
> that is in question. This means that in sentences
> in which the verbal occurs in final position, the
> first member of a pair is ruled out, since in such
> cases there is no reference to circumstances. eg.

> (1) tuafikílé kúnimáná   "we arrived at the river
>   (not somewhere else)"

> (2) tualifíkílé kúmúmáná "we did arrive at the river"

> (21) abééní béslifíkílé   "the visitors arrived". "

So far, so good, or at any rate, not bad.

> "When following a time-clause, the second member of
> a pair usually refers to something that happened
> previously, eg.

> (3) ílyo túsfíkílé, bááfúmíné míngandá

> "when we arrived yesterday (sic) they went out of the
>   house"

> (23) ílyo túsfíkílé, báálíífúmó míngandá

> "when we had arrived yesterday, they had gone out of the
>   house"

[1]N.B. It is purely fortuitous that these 'pair-numbers'
end with the same digit. Had his first 'group' totalled
19 or 21 instead of (by chance) 20, his pairs would have
had numbers with different end-digits. Guthrie's numbering
is in effect random, and hence of no classificatory or
teaching value.

This is not so. These sentences mean "when we arrived
(recently) they came (not went) out of the house", and
"when we arrived (recently), they went out of the house"
(special emphasis), ie. rather than 'going in'.

Dr. Guthrie goes on to say:

> "There are several complications in the uses of the
> pair .. (4)/(24).... At the end of a sentence a
> verbal cannot be in tense (4) ... one in (24) always
> does duty for either of them. This means that the
> distinction in meaning that is achieved in other
> positions by means of these tenses is impossible in
> final position; eg.
>
> (4) ŋga músbútúká kúnó   "if you happen to run from here"
> (24) ŋga músbútúká kúnó "if and when you run from here"
> (24) ŋga músbútúká   "if you happen to run; if and when
>   you run"

Unfortunately, -bútúka kúnó means "run here" not "run
from here", but even if we leave this reversal of meaning
on one side, the distinctions drawn between (4) and (24)
after nga in medial and final positions are in any case
false. Both nga + (4) and nga + (24) mean 'if (and when)',
whether followed or not followed by another word. Since
the 'distinction in meaning' that Dr. Guthrie imputes to (4)
and (24) is invalid, it is no longer possible to say that
"it is impossible in final position."

The next two "complications in the uses of the pair ...
(4)/(24)..." that are set forth both involve example
sentences that are not Bemba[1], so it is difficult to
comment on them: however, the simple fact that impossible
sentences are given will itself perhaps serve to illus-
trate my general point.

So far, we have (a) a quite reasonable general assess-
ment of the pairs 1/21, 2/22 and 3/23; (b) an interpretation-
failure on 3/23 leading to an unnecessary addition to (a)
and to an aberrant statement about their use; (c) ditto

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[1] "kúti músbúéla kúnó / kúti músbúélá kúnó" and
"báškééna ifyó / báškééná ifyó" all simply do not occur
in Bemba.

on 4/24, with a different additional difference between
the pairs from that noted under (b); (d) two further
additions to interpretation of usage of 4/24, which would
be wrong anyway, but for which impossible example-sentences
have been given.

The next 'deviant' is the pair 5/25; these

"are in some ways different from the other pairs,
in that they are distinct in their meanings..."
(My italics) "Nevertheless, (5) never occurs in a
verbal in final position" (of course) "in which
case (25) does duty for either of them."

The distinction in meaning detected by Dr. Guthrie is
evidently that made in the English "they have arrived.." (5)
and "they have already arrived..." (25). Needless to say,
this is in fact once again the non-emphatic ⇆ emphatic or
strong-bond ⇆ weak-bond distinction observable in all pairs.
Guthrie goes on to state that

"not infrequently (25) occurs in a relative clause,
eg. ééfyo néetúmóné, "they are the ones we have
already seen". "

This is not possible in normal Central Bemba speech: the
construction must have been observed in the speech of a
non-typical informant.   Then we have:

"... the tenses 7/27 have exactly the same occurrence
as 4/24... here first... are examples to show that in
final position (26) (sic) serves for (4) (sic) as well."

(ie. (27) for (7) - this must have been a straightforward
error in Ms.)

"(7) báléélima kúnó   "they will cultivate here today"

(27) báléélímá kúnó   "they are cultivating here at this
                                              moment"

and   (27) báléélímá   "they will cultivate today; they are
                                    cultivating at this moment!" "

There is in fact no such distinction as 'will' and 'are...ing'
between Guthrie's (7) and (27)[1]: either could mean either -
the difference is one of emphasis, not time. But normally
we have eg. báléélisaalima (or báléélisáálímá) for 'will'.

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[1] I conclude that what was heard (or given) by the informant
was the intense intonation of an emphatic báléélímá, which
the informant would naturally interpret as 'now-now'.

There follows:

> "Verbals with a radical of type (A) can only occur
> in (7) which then does duty for both tenses:-
>
> (7) béléébuela kúnó   "they will return from here today"
>
> (27) béléébuélá kúnó   "they are returning from here at
>   this moment"
>
> (A)(7) béléébuélela kúnó "they will return here today; they
>   are returning here at this moment" "

Unfortunately, neither béléébuela kúnó nor béléébuélá
kúnó can possibly mean anything like this - they both mean
"will come back here " or "are coming back here": if we
wish to say "return _from_ here" we say (using Guthrie's
orthography) béléébuelela-mó.   However, disregarding this,
"(A)(7) béléébuélela kúnó" (presumably a misprint for
"béléébuelela kúnó") is more _likely_ than "(27) béléébuélélá
kúnó" because the -il-/-ɓl- extension naturally suggests a
strong bond with what follows, and there fore 'prefers' an
odd-numbered tense in my tabulation. But an even-numbered
tense like my (O4) ie. Guthrie's (27) is none-the-less
possible with the -il-/-el- extension, and as usual pro-
duces special emphasis.   Next:

> "Finally an example to show that a verbal followed
> by a word that is not an object cannot be in (27):-
>
> (7) béléélima ifí   "they will cultivate like this today; they
>   are cultivating like this at this moment"
>
> cf.(7) béléélima ifí   "they will cultivate these things today"
>
> (27) béléélímá ifí   "they are cultivating these things
>   at this moment". "

Again a matter of normal meanings - you wouldn't normally
need to say "they are _digging_ like this"; however,
"(27) béléélímá ifí? "Are they _digging_ like _this_?" or

                "Will they _dig_ like _this_?"

is in fact perfectly possible.

As for Guthrie's two latter examples of (7) and (27),
once again both could mean either - but the difference is
that (7) would mean "they will dig"are digging these..."
while (27) would mean "they will _dig_/ are _digging these_ ..."

But, normally 'will' would be usual be báléćissalíms...
or báléćissalíms...   Next he has:

> "The main difference between...(6)/(26) is that in
> final position (26) does duty for both (sic!), eg.
>
> (6) umuélé úkúúka pámúméné   "the wind blows without a
>   break on the river"
>
> (26) umuélé úlakuuka pámúméné "the wind blows on and off
>   most of the time on the river"
>
> (26) umuélé úlakúúká   "the wind blows without a break"
>   "the wind blows on and off most
>   of the time"   "

In the first place, the example of (6) doesn't mean

anything. (Or rather, it means something like "the wind

blows on the river only, and nowhere else" which is obvious

nonsense.)   But in any case there is no 'without a breaK /

on and off" distinction between (6) and (26).   Why indeed

should a pair of tenses suddenly produce a difference of a

different _order_ from anything that we have seen hitherto in

Dr. Guthrie's analysis of the pairs 1-7/21-27 ?

        This is just the kind of error that this approach

must lead to: and when in the next section Dr. Guthrie

gives more detailed meanings and xxgxxd usages of each

individual tense, we find more and more cause for dismay.

For example: Tense (5):

> "Since (tense)(2) involves reference to completed
> events that occurred before yesterday, the use of
> (5) implies either that the time is not known, or
> that it is subsequent to the day before yesterday."

Now (2) actually refers to events regarded as remote

(as opposed to _recent_), and (5) refers _only_ to zero time

(in effect, 'today'). It is always used of events of

which effects still persist or _matter_. Tense (6):

> "Where distinct from (26)... a verbal in (6) refers
> to a repeated event that is uninterrupted, eg.
> úbubénsí búlíś amálóló, "the termites are always
> eating the bridges".[1]

---

[1] Actually, this "are always eating" is a very typical **African-
English** translation of an habitual tense: thus we often hear
African saying such things as 'those people are eating cassava'
when they really mean 'those people eat cassava'. My guess is
that the informant gave 'are always eating bridges', and the
G. system didn't spot the (English) error.   (If we wanted
"are always", we would use (03) plus a suitable locution
for "always".

It actually refers to 'habitual' events: '(the) termites
eat bridges' - as one of their items of food.   There is no
question of 'uninterrupted': dogs bark at cats, I smoke
a pipe, we eat cassava, are typical sentences for this
tense.   Tense (26):

> "In final position, a verbal in this tense also
> does duty for (6), but elsewhere it refers to a
> repeated event that is not necessarily uninter-
> rupted, eg. álafúúla icísóté, "he regularly wears
> a hat" "   (my italics) -

There is, as usual, no difference in reference between
(26) and (6), and neither 'uninterrupted' nor 'not
necessarily uninterrupted' is correct: they are simply
not relevant categories.   Tenses (7) and (27):

> "... a verbal in (7) may refer to an uninterrupted
> event at zero time ... (or) ... simple event to
> take place later in the same day..."

So far, so good; but

> "... in (27)... may refer to an event in progress at
> zero time, without necessarily implying that it is
> uninterrupted, eg. báléékuula íngandá, "they are
> building a house" (though at the moment they are
> doing something else)."

In the first place, baleekuula isn't (27) anyway, it's
(7)!   But, even if it were (27), the only distinction
between (27) and (7) would be as usual one of emphasis
(not 'uninterrupted $\neq$ interrupted').   Both tenses refer
to 'NOW' - and 'now' can be 'this very instant', 'these
days', 'in this period of history', just as in English.
Meanings of radicals will naturally produce variations
in the 'meanings' of the two tenses in English translations.

> "...when... event not in progress at the time of
> speaking, ... (27) refers to an event in progress
> to take place later on in the same day, eg.
> nga muabúélá kúmúmónú tuléélándá kúnsaká, "if you
> come back from the river, we shall be chatting in
> the forum".   "

This is (a) simply not so, (b) simply not Bemba.   It
should be twaalsáélándá or twaalsáálandá if he means "the
next thing will be that we shall chat"; or tulééisaalandá
. if he means "you will come back, and then we will talk
together." If he means "you will find us talking", then
he must say mulééisaatúsángá tuléélándá.

It would be possible to multiply examples of this
sort: but I feel that enough have been quoted to make
it quite clear that insufficient attention to meaning,
and the relationships between form (or even shape) and
meaning, can be disastrous - on some occasions even _leading_
_to_ or 'encouraging' faulty recording (as in the baléelíma
case).

Indeed, all these errors and omissions can be traced
back directly either to an over-insistence on _irrelevant_
shape/form differences and similarities, or to a scorning
of the help that meaning (at the general level) could have
given, or to the overall failure deliberately to tie up
(morphophonological) structure and meaning.   Here is an
object-demonstration of how a dubious or exaggeratedly-
held-to phikospphical theory can affect practical results.

My second criticism is far less practical, but
nevertheless philosophically important: it is however
only negatively connected with the present paper, and
will therefore not detain us long.   You will have
observed that in order to prosecute my own analysis, I
made no large-scale previous assumptions about form _or_
meaning _or_ shape, 'lexical elements' _or_ 'grammatical
elements':   I treated everything just as it came, without
commenting on its ancestry or assigning it to a grammatical
or a lexical pigeon-hole.   Dr. Guthrie and others using
this 'two-facet' style of analysis seem to think that the
division is in itself most important (although in point of
fact they do not themselves always make it): I hope I
have shown that it is best not even to mention the 'division'.
If we do, we only involve ourselves in unnecessary self-
contradictions.   For example, as we have seen, Dr.Guthrie

claims that "Grammatical form in Bantu is not concerned
with meaning or shape." We noted that his criteria for
differentiating the parts of speech, or, as he put it on
another occasion, for "establishing the grammatical form
of a word,"are:

"(1) nature of elements of the word

(2) commutability of elements of the word

(3) capacity of the word for combination with other
elements.

(4) behaviour in context of the word (= gr. function)"[1]

Yet if we examine his lecture examples (roneoed) of "the
nature of elements of the word", we find that they all
involve differences in the <u>shape</u> of the word (eg. length
of vowel in normal prefixes). In Bantu Classification,
page 22, he includes "presence or absence of nasal con-
sonants in dependent prefixes" as a grammatical distinction:
and on the same page, the existence or not of "double
nominal prefixes" (ie. prefixes of the shape VCV-, or
CVCV-) is also cited as a grammatical distinction.
Criterion (2) is of course only possible of achievement by
the direct use of a shape + meaning classification of "the
elements of the word."

Here, then, is a typical contradiction: we <u>must</u>
always in fact be concerned with 'shape', and even he who
says he is <u>not</u> must quote examples proving that he <u>is</u>. As
can be seen from the table on p.148$^{(a)}$, I have been very much
concerned with shape, but consciously so; with as I hope,
better results than are often achieved by the 'no-shape'
school.

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[1] Lecture Notes (roneoed) 1949

Again, criteria (3) and (4) are in fact entirely concerned with 'meaning'; once we bring words into contact with other elements or other words, we cannot possibly exclude meaning. Otherwise we can't be sure that we are in fact dealing with the 'same word'.

Turning now to the verb in general, we find that radical and extensions are (?or wer e) for Dr.Guthrie 'lexical' elements: yet they very much affect behaviour in context (cf. criterion (4) above), enabling a given verb to take an object, or two objects, or rendering it impossible, or absolutely necessary for it to take an object. Tense signs are (or were) for Dr. Guthrie grammatical elements; yet they generally have far less effect on behaviour in context than do extensions. Furthermore, they can be distinguished one from another only by shape and meaning: without having recourse to 'shape' we cannot tell bákapítá from bálapítá, and without 'meaning' we cannot even tell they're not mere variants of the same tense, or perhaps two entirely unrelated words!

What differentiates one 'class' from another is 'prefix': and what differentiates one 'gender'[1] from another is 'prefix' (or more properly, 'Prefix-group'): furthermore, what differentiates one 'person' from another is 'prefix'. Yet person-distinction is for Guthrie grammatical (though here if anywhere, the distinction lies in 'meaning'!) while gender-distinction is lexical (though it depends on prefix-differences in the substantives concerned, themselves associated with other prefix differences, or 'agreements' elsewhere in the sentence - surely a 'formal' difference?) To bring the word 'person' in at all betrays the insidious entry of 'meaning': and the other distinction between one 'personal' prefix and another is one of 'shape', with which we are likewise 'not concerned'.

"The discrimination of person is achieved by the use
of special prefixes and is therefore grammatical" (Gender,
Number and Person[1]). But the discrimination of genders is
also achieved by the use of special prefixes, and is
nevertheless lexical (Word Division et. alii)! Per contra,
discrimination of person could be regarded as lexical,
since it need have no effect on sentence structure, but
only on 'meaning': while gender, on the other hand, "has
as its sign a prefix", and hence on Guthrie's own showing
could be regarded as properly belonging to 'grammar'.

In CBL passim Guthrie talks of "grammatical tone"
being used to distinguish tenses: here he is again
(clandestinely) invoking meaning and shape. The 'behaviour'
of every pair of words so distinguished is probably
identical - at any rate probably far more nearly identical
than the behaviour of two nominals distinguished only by
Guthrie's 'lexical tone'. For differences in time reference
and/or aspect (this is apparently 'grammatical'!) between
main-sentence indicative tenses rarely affect behaviour in
context, whereas differences in meanings between radicals
or suffixes (implied in 'lexical tone') may easily affect
the associative powers of a noun or adjective (or verb,
for that matter - eg. number of objects it may take).

What is going wrong? Dr. Guthrie has involved himself
in a self-contradictory series of statements: but how? If
we merely observe, eg. a prefix, and make no statements
about it that include words like 'lexical' or 'grammatical',
but merely describe its behaviour, there need be no contra-
dictions. The contradiction is imported along with the
concepts. What we ourselves have 'put into' the object of
our study may always quite readily be 'found' there later on.

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[1]
I haven't a copy of the article with me, so cannot quote
the exact reference. SOAS Bulletin, 1948 or 1949.

Thus Dr.Guthrie discovers grammatical characteristics when he performs grammatically orientated experiments, or uses grammatically orientated definitions. Change the experiments, or the definitions, and lexical characteristics may emerge. A given element may be discussed in its several aspects: we cannot expect to be able to label elements finally and exclusively as 'grammatical' or as 'lexical'.

By trying to do so, we only inhibit much more important investigation: there is little or no point in these labels, and analysis can proceed perfectly well without them. If we happen to be concerning ourselves with lexical distinctions, we can say so at the outset, and from then on prefixes, tense signs, radicals and extensions will all be listed according to their (narrow, concrete or particular) lexical differences (in practice, by their 'meanings' in some other language, or by 'synonyms' or approximations in their own). If we are concerned with grammar, we list the same elements according to their grammatical categories, whether morphological or syntactic), and here again 'meaning' will be our touchstone - though this time at a broader, more abstract or general level. (cf. Doke's IMPORT, or Westphal's 'reference'.)

So the dichotomy lexical ⇆ grammatical is sometimes 'useful': but not 'necessary' - 'useful', for instance, when writing one book called a grammar, and another called a dictionary. Into the dictionary goes a list of all words. Those criteria that one sets up (or signs that one discovers in the material) that enable one to establish categories of words,[1] are grammatical criteria (or signs). Thus, any commutable element is in one sense grammatical, merely because it is part of a series (radicals and extensions too).

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[1] ie. Parts of Speech.

When treated as part of a series, leading to a classification of a group of words as X's, or Y's, Or Z's, that element is a grammatical element.   But in the dictionary the 'same' element in the 'same' word is 'lexical' merely because it figures in a lexical list.

There is no magic about the terms.

When we come to study the inter-behaviour of our 'word-categories', we are embarking on syntax - also a part of grammar - and here especially do we find that certain particular words just simply will not conform to all the rules normally conformed to by the given word-category to which they belong.   They are precluded from so doing by their own individual meanings.   (Not now their IMPORT, as Doke put it, but their meanings at the concrete practical level: not the generalized 'pastness' or 'transitiveness', but the actual limited, down-to-earth meaning.)   And these (concrete) meanings have an absolute (abstract) effect on 'behaviour in context'.

Dr. Guthrie (deriving much of his attitude and methods eclectically - even unconsciously, one gathers - from scholars as widely differing in techniques and approach as eg. Firth and Bloomfield, Nida and Doke) quite rightly wished to get away from the old tendency to crush all languages into a Latinesque grammatical mould.   He did not want to analyse language x in terms of English, or in terms of Latin grammar part-modulated by English.   He therefore said, "Let's scrap 'meaning', and let the forms speak for themselves."   Basically, all he really wanted to do, I suspect, was scrap English meanings; for he obviously just did not even notice the enormous amount of 'meaning' still left in such terms as 'first person', 'remote past', 'time reference', 'singular' and 'plural'.

You can no more scrap 'meaning' in the abstract than you can scrap the vowels and consonants and tones that make up the shapes you study. All you need to scrap is the idea that if there are an 'adverb' and a 'conjunction' somewhere in an English translation of a sentence from language x, there must necessarily be an 'adverb' and a 'conjunction' in that original sentence. Dr. Guthrie exhorted us all not to pour baby and bathwater into a different bath to see what shape the water was, but simply to pour the lot away in order better to examine the shape of the original bath; he himself then poured only the baby away, and said, "See, what a nice empty bath."

In this paper, I have not concerned myself with the dichotomies grammatical⇋lexical, or form⇋meaning. On the contrary, I have deliberately used 'meaning', both at the generalized abstract level (eg. 'persons', 'tenses', 'past', 'future', 'continuous' - and indeed implicitly in such terms as 'radical' - see my definition, p.9), and at the specific concrete level (by citing English equivalents as distinguishing 'markers'. eg. bákaníté: they will pass). I believe that by doing this, I have been enabled to simplify and speed up the exposition, without having been forced to import categories from English as a result.