THE TEMPORAL ROLE OF EASTERN BANTU -ba AND -li*

Robert Botne
Indiana University

In the eastern Bantu languages forms of the verb 'be',
-ba and/or -li , are commonly employed in complex con-
structions in which they take sentential(-like) comple-
ments. Though often considered to be semantically empty
in these constructions, they are analyzed here as shift-
ers, having both referential and indexical properties.
As such they function to establish additional parameters
to the temporal framework in which the narrated event is
to be interpreted.

1. Introduction

   In eastern Bantu languages forms of the verb 'be', -ba and/or -li , are
often employed in complex constructions in which they take a sentential(-like)
complement. In these constructions we commonly find tense/aspect markers both
on the matrix verb, i.e. the particular form of 'be', and on the complement
verb. One conventional explanation of this phenomenon has been to consider
the so-called auxiliary verb 'be' to be a semantically empty support for tense
markers, an approach not unlike that of early generativists with respect to
the English auxiliary verb 'do'. Another approach has been to state in a
vague manner that the time of the event is more specifically asserted. In
this paper I want to propose that -ba and -li , in those languages that
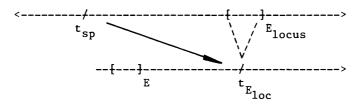utilize them in such complex constructions, are not semantically empty but

function to establish additional parameters to the temporal framework in which
the narrated event is to be interpreted, thereby indicating more precisely the
temporal location of the event. More specifically, I will argue that -ba
and -li function as shifters, having both referential and indexical proper-
ties.

2.   Establishing a Locus of Orientation

For all languages it would appear that the speech act itself serves to es-
tablish the primary locus for temporal orientation. Whatever the particular
structure of the tense/aspect system may be, events (as named by verbs) are
normally marked and interpreted temporally with respect to the time of the
speech event (t_{sp}) in those languages that grammaticalize tense distinctions.
However, it is not the case that languages are restricted to one grammatically
relevant locus of orientation. There are at least a few languages which, in
addition to the speech event, utilize a second (or even third) event as anoth-
er locus of orientation for the temporal representation of events, and, more
significantly for the present analysis, they refer to and index this event-
locus grammatically.

In effect, the grammaticalization of this second event-locus establishes
a second temporal continuum, dependent on the time of the speech event for
its proper interpretation. Thus, in those languages that grammaticalize a
second locus we find a potential for complex temporal frameworks in which the
narrated event is to be interpreted. Such a framework, in which the second
locus is situated posterior to the speech event, is schematized in Figure 1.

Figure 1. Complex temporal framework

For the eastern Bantu languages it is my claim that the auxiliaries -ba
and -li are grammatical vehicles for the indexing of this second event-locus

and are referential in that they refer to a second locus. The "value" of the
locus shifts according to context as a different event is indexed to serve as
the event-locus. In order to support this claim I will present evidence that
neither -ba nor -li is simply a tense support and show that they do, in
fact, index events from context. Finally I will suggest how the two differ in
those languages that employ both of them in the same types of complex construc-
tions.

3. Evidence Against -ba and -li as Tense Supports

Conventional explanations of complex 'be' constructions have assumed, in-
correctly, that the auxiliary verb, whether -ba or -li , simply serves to
carry the tense marking for the construction. Evidence of usage from a number
of languages argues against this assumption. Consider first some cases in
which the tense marker on the auxiliary verb does not indicate the time of the
event.

(1) Kinyarwanda (J 61) [Botne 1981]

    a. uza:garuke   ejó   kare, n-za:-ba n-â:-gi-som-ye[1]
        2s-fut-return tomorrow early 1s-fut-be 1s-pst-7-read-comp

        'come back early tomorrow, I'll have read it (before then)'

    b. Yohaní n(i á:zana   ibito:ke makúmyǎ:biri, n-ra-bá   n-z(a:-e:ng-a
        John   if 3s-bring bananas twenty   1s-nfut-be 1s-fut-brew-perf

        'if John would bring 20 bananas (today), I will brew (some beer)
        (after today)'

(2) Ciyao (P 21) [Whiteley 1966:214]

    a. ngáli juvávééceeté   sooní pélé-po
        not-be rel-3s-speak-asp again that time (after)

        tu-li tw-a-más-ilé   góná
        1p-be 1p-pst-finish-asp sleep

        'no one spoke again, that was after we had gone to sleep'

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[1]Abbreviations used in the examples are:

T	= tense marker	nfut	= near future	perf	= perfective
asp	= aspect marker	pst	= past	pass	= passive
fut	= remote future	comp	= completive		

b.   tw-a-líi-jí mkusyóómá bálúá katémá kámwapítágá-ko
     1p-pst-be-? in-to read letter time   12-2p-pst-pass-asp-loc

     nímlole   nganitumkólanga
     that's-reason not-1p-2p-greet-asp

     'we were reading a letter when you were passing, that's why we
     didn't greet you'

In Kinyarwanda the future is sub-divided into two phases, later today
(marked by -ra-) and after today (marked by -za:-). In (1a) the reading
of the book will occur before early tomorrow morning, hence today. Yet -ba
is marked with the distant future marker -za:- , indicating after today.
Clearly, the time of the event and the temporal phase indicated, specified by
the tense marker on -ba , do not correspond. Similarly, in (1b) 'brewing'
will occur after today, but auxiliary -ba is marked with -ra- , later to-
day. Again we find a discrepancy in the time referred to by the tense marker
and the time of the event. An analysis that assumes -ba to be simply a sup-
port for tense cannot explain this tense usage.

In the Ciyao examples -li is covertly marked for non-future, the future
marker being the prefix ti- or tu- (the tu- in these examples being the
1st person plural marker and not the future). The overt tense marker for
past, -a- , is found on the complement verb, and not on the auxiliary.
Since -li can occur with the past marker, as shown in (2b), we need to con-
sider why it does not do so in (2a), a case that would appear to warrant its
occurrence. The fact that -li may or may not take a particular tense mark-
er strongly suggests that it is not an empty form serving to support tense
morphemes, but rather that there are contextual factors which require the ex-
pression of certain temporal relations.

Another bit of evidence refuting the notion of "tense support" can be
found in cases where both the auxiliary verb and the complement verb have the
same tense marker, as in examples (3-5). If the auxiliary is truly only a
tense support, then why should there be a need for two markers that have the
same time reference?

(3) Siswati (S 43) [Ziervogel and Mabuza 1976:187]

ba-ṭawu-be ba-ṭawu-caḷa nakuvakaḷa   kukhaḷa   inkweḷa
3p-fut-be 3p-fut-start when-to be audible to produce sound whistle

'they will be about to start when the whistle sounds'

(4) Kirundi (J 61)

niya azaná   ubwǎ:ṭsi bw'ínzu, ṭu-zo:-ba ṭú-zo:-sáka:ra inzu
if   3s-bring thatch   of house 1p-fut-be 1p-fut-thatch house

'if he would bring the thatch (tomorrow), we will thatch the house
(after tomorrow)'

(5) Lamba (M 54) [Doke 1938:305]

n-ā̄-li   n-ā̄-mu-wona   lē̄lo
1s-pst-be 1s-pst-him-see today

'I have seen him today'

Note that for Siswati and Kirundi the complement verb is not restricted to
the same tense marker as found on the auxiliary; other possibilities exist,
as in (6-7).

(6) Siswati [Ziervogel and Mabuza 1976:187]

ba-ta(wu)-be ba-Ø-nats-é   inkantini, hhayi tjwala
3p-fut-be   3p-T-drink-asp liquor   not   beer

'they will have drunk liquor, not beer'

(7) Kirundi

ní wazá   mukwe:zi kuúza   ṭu-zo:-ba ṭw-â:-saka:-ye   inzu
if 2s-come month   to come 1p-fut-be 1p-pst-thatch-comp house

'if you come next month, we will have thatched the house'

These examples suggest that the complement verb is marked with respect to
some locus other than the speech event, otherwise we would expect a past in-
terpretation in (7). The presence of -ba or -li and the appropriate
tense affix signals the location of this other locus, hence the need for the
tense marker on the auxiliary.

A final piece of evidence, and perhaps the most compelling, is found in
imperative constructions. In these cases we find two possible constructions,
one with auxiliary -ba and one without. Both have the same temporal mean-

ing, yet they differ significantly in their implications.

(8) Cinyanja (N 31) [Hetherwick 1914:149]

 a. ba khala pansi pang'ono pano
   be sit on ground a little here

   'sit down on the ground for a little here (while I do something
   else)'

 b. khala

   'sit (down)!'

(9) Kinyarwanda [Botne 1983:259]

 a. ba wi:caye hasí
   be 2s-sit-comp on ground

   'sit down on the ground (while I do something else)'

 b. icara

   'sit (down)!'

From the parenthetical commentary in the (8a) and (9a) examples it is clear
that the presence of -ba affects the meaning of the utterance over and
above any notion of time. It is also clear that -ba does not carry any
tense marker in the (a) examples that differentiates the complex construction
from the simple one found in (b). Thus, -ba cannot be considered to be a
meaningless, empty support element in a complex construction.

  These few examples from a variety of eastern (and southern) languages are
sufficient to demonstrate that the conventional assumptions about the roles
of -ba and -li are incorrect and that there is much more to the functions
of these auxiliaries than a tense support hypothesis can handle.

4. -ba and -li as Shifters

  The tense support hypothesis., as we have seen, does not account for the
observed occurrences of the complex 'be' constructions. In place of this hy-
pothesis I propose that these auxiliaries are best treated as shifters, that
is, as sign vehicles that have both referential and indexical functions.
They refer to a second locus of orientation which, as part of the temporal
framework, must be situated temporally with respect to the speech event. For

this reason it is not surprising that the auxiliary verb may take a variety
of tense markers, as would a main verb in simple constructions. The tense
marker simply indicates the relationship between the primary locus (the speech
event) and the secondary locus. That is, the tense marker indicates whether
the time of the event-locus ($t_{E_{loc}}$) is anterior, posterior, or contemporane-
ous with t_{sp}. The particular "value" of $t_{E_{loc}}$ is not specified by the
auxiliary verb; rather, it comes from the context of the utterance. Thus,
the value (or "meaning") of the auxiliary shifts according to the context and
the exact event that it indexes as the locus.

There are, then, three properties of these complex 'be' constructions that
are salient here: (1) they establish a second locus of orientation; (2) they
index an event from context that serves as the "cognitive" value of the second
locus referred to; and (3) they indicate that the event E is to be interpreted
directly with respect to this second event-locus ($t_{E_{loc}}$). The first and third
of these properties are interconnected; that is,   if a second locus is
grammatically established (by use of -ba or -ǀi), then E must be inter-
preted with respect to this locus.

Consider explicitly how this works by comparing the two examples from Ki-
rundi, repeated here as (10a) and (10b).

(10) Kirundi

    a. niya azaná   ubwǎ:tsi bw'ínzu, tu-zo:-ba tú-zo:-sáka:ra inzu
        if   3s-bring thatch   of house 1p-fut-be 1p-fut-thatch house

        'if he would bring the thatch (tomorrow), we will thatch the house
        (after tomorrow)'

    b. ní wazá   mukwe:zi kuúza   tu-zo:-ba tw-â:-saka:-ye   inzu
        if 2s-come month   to come 1p-fut-be 1p-pst-thatch-comp house

        'if you come next month, we will have thatched the house'
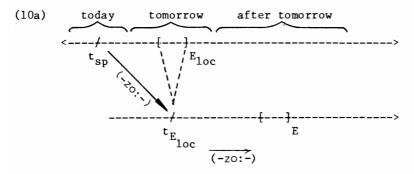
In both sentences the auxiliary -ba is marked by the remote future marker
-zo:- , hence, the second locus of orientation has been situated posterior,
and specifically after today, with respect to the time of the speech event.
However, both the "value" attached to this locus, i.e. the event indexed, and
the relationship of the event narrated in the complement clause to this second

locus differ. In (10a) -ba indexes the event 'bring thatch', and it is with respect to this particular event that the actual thatching of the house will take place, specifically on some day after the day on which the thatch is brought, hence the use of -zo:- on the complement verb. In (10b) -ba indexes 'come next month'; the past affixes, -a:- and -ye , on the complement verb indicate the temporal relationship of the event 'thatch house' with respect to this specific event. These two complex temporal frameworks can be represented schematically as shown in Figure 2.

How the narrated event is to be interpreted temporally with respect to the indexed locus is indicated by the affixes attached to the complement verb. In many cases this relationship will be determined in terms of aspectual distinctions, specifically, what aspect of the event E is to be focused on with respect to the state of affairs at $t_{E_{loc}}$. A few languages, such as Kirundi, maintain tense distinctions similar, if not identical, to those expressed between E and t_{sp} in simple constructions. Luganda (J15), Kiswahili (G42), and Siswati (S43) are illustrative of the aspect type, Kinyarwanda (J61) and Ciyao (P21) of the tense type.

(11) Luganda [Ashton et al. 1954:292]

   a. bwe nnamulaba,   yali   asoggola_ lumonde
       when 1s-pst-her-see 3s-pst-be 3s-dig up potatoes

       'when I saw her, she <u>was</u> dig<u>ging</u> up potatoes'

   b. bwe nnamulaba, yali   alusoggoze
                              3s-pst-be 3s-them-dig up-comp

       'when I saw her, she <u>had</u> <u>dug</u> them (potatoes) up'

(12) Kiswahili [Ashton 1944:250, Wilson 1970:247]

   a. hapo majajazi yalipokuwa   yanatoka   bandari,
       then dhows   6-pst-when-be 6-pres-leave harbor

       kulisikilizana kelele
       17-pst-be heard noise

       '<u>just</u> as the dhows <u>were</u> leav<u>ing</u> the harbor, a noise was heard'

Figure 2.   Complex temporal frameworks in Kirundi
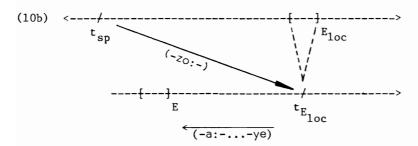
(10a)

t_{sp} = time of speech event

$t_{E_{loc}}$ = time of E_{loc} indexed by -ba

E_{loc} = bring thatch

E   = thatch house

(10b)

t_{sp} = time of speech event

$t_{E_{loc}}$ = time of E_{loc} indexed by -ba

E_{loc} = come next month

E   = thatch house

    b. nilikasirika   sana kwa sababu alikuwa   akilala   mkutanoni
        1s-pst-be angry very because   3s-pst-be 3s-cont-sleep meeting-at

        'I was very angry because he <u>was</u> sleep<u>ing</u> at the meeting'

(13) Siswati [Ziervogel and Mabuza 1976:187]

    a. batawube bahamba<u> </u>nabafikako   bangani bakhe
        3p-fut-be 3p-tra<u>ve</u>l when-3p-arrive-loc friends his

        'they will <u>be</u> travel<u>ing</u> when his friends arrive'

    b. batawube bahambile<u>   </u>nabafikako bangani bakhe
                      3p-tra<u>ve</u>l-comp

        'they will <u>have</u> traveled (completed), when his friends arrive'

(14) Kinyarwanda [Botne 1981, 1983]

    a. uza:garuke   nímugóro:ba, ndabá   na:rwe:nze
        2s-fut-return evening   1s-nfut-be 1<u>s</u>-pst-it-brew-comp

        'come back this evening, I will <u>have</u> brew<u>ed</u> it (beer)'

    b. n'â:zana   ibito:ke, ndabá   nze:nga   urwâ:gwa
        if-3s-bring bananas   1s-nfut-be 1<u>s</u>-fut-brew banana beer

        'if he would bring some bananas, I will <u>brew</u> some banana beer
        (after today)'

(15) Ciyao [Whiteley 1966:214]

    a. puváíkagá   ambújé-wo   uwé ní tuli
        when-3s-arrive-asp grandfather-dem my   1p-be

        tumasílé   kúlyá
        1p-finish-asp to eat

        'when my grandfather arrived we <u>were</u> finish<u>ed</u> eating'

    b. ngáli juvávééceeté   sooní pélé-po   tuli
        not-be rel-3s-speak-asp again that-when 1p-be

        twamásílé   góná
        1p-pst-finish-asp sleep

        'no one spoke again, that was after we ha<u>d</u> <u>gone</u> to sleep'

From these data it should be apparent that both -ba and -li play signifi-
cant roles in establishing one locus of the temporal framework in which the
event is to be interpreted. How the event will be interpreted with respect
to this locus depends on the type of tense/aspect system a particular lan-

guage employs for these constructions. The nature of this system may depend,
in part, on whether constructions are made with -ba or with -li .

5. Differentiating -ba and -li

We have seen that both -ba and -li function to establish a second loc-
us of orientation, but as yet there has been no indication of how they differ.
Of the dozen or so languages examined five utilized both -ba and -li con-
structions. By comparing the sense of the two types of constructions in some
of these languages we gain some sense of the difference in effect of using one
or the other (and even both together) of the auxiliaries. Consider first the
case of -li in some constructions that have locative complements (the (a)
examples that follow):

(16) Kinyarwanda [Botne 1981, 1983]

    a. ari   mukwe:nga[2]   'he's (in the midst of) brewing'
        3s-be in-to brew

    b. are:nga   'he's brewing'
        3s-pres-brew

(17) Ciyao [Whiteley 1966]

    a. túlí mkutává   nyúmba   'we are (in the midst of) building a
        1p-be in-to build house   house'

    b. tukútává   nyúmba   'we are building a house'
        1p-pres-build house

(18) Cigogo (G 11)

    a. nili mundya   'I am (in the midst of) eating'
        1s-be in-eat

    b. nkulya   'I am eating'
        1s-pres-eat

While both the (a) and (b) examples can be used to speak of an event on-going
at the time of the speech event, they differ subtly but significantly in
their meanings. The -li + locative constructions (either mu- or m- plus

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   [2]In Kinyarwanda the suppletive form of 'be', -li , is realized as -ri
except after a nasal such as the first person singular subject marker n- ,
where we find ndi .

infinitive) indicate that at the moment of speaking the speaker is actually
engaged physically in the event that is being described. On the other hand,
the examples in (b) are all "general" present tenses indicating that the sub-
ject is involved in the named event, but it is not the case that the subject
is necessarily actually performing the activity (he may be resting, for exam-
ple). Hence, the use of -li picks out a particular *moment* in the event for
focus.

This role of -li is even more apparent in a construction like that found
in Kinyarwanda in which the locative construction occurs as the sentential
complement of -ri .

(19) Kinyarwanda [Botne 1981]
      Gasaná azá,   narí   ndí   mukwe:nga, nyumá arakazwa
      Gasana 3s-come 1s-pst-be 1s-be in-to brew then   3s-be angry-pass
      n'û:ko   ntă:muramukije
      it's because neg-3s-pst-him-greet-comp

      'when Gasana came I was in the midst of brewing; he became angry
       because I didn't greet him properly (at that moment)'

At a particular moment in the past the speaker was engaged in brewing beer,
which involves mashing up bananas with the hands. He was not able to greet
Gasana properly, i.e. by embracing him with both arms, at the moment of arriv-
al because he was occupied.

This "punctual" nature of the -li construction can be contrasted direct-
ly with the same locative type construction in -ba . Consider the following
example from Ciyao, and compare it with the example in (17a).

(20) Ciyao [Whiteley 1966:190]
      túv'é mkutává   nyúmba ní tááce   kútukámúsya
      1p-be in-to build house and fut-3s-come to-us-help

      'we will be building a house (w/implication of *continuity*) and he'll
       come and help us'

Here we find a durative, continuous notion ascribed to the event 'build',
whereas in (17a) the -li construction picks out and focuses on a particular
moment of the event. This "durative/momentaneous" opposition is found not on-

ly in these 'be' + locative constructions, but also in the 'be' + sentential
complement constructions. A clear distinction can be observed in Kinyarwanda
where we find -ba and -li constructions opposed in the past tense.

(21) Kinyarwanda [Botne 1981]

a. nabâ:ye   nǐ:ga   ntégereje   Mihigo
    1s-pst-be-comp 1s-study 1s-wait-comp Mihigo

    'I studied while waiting for Mihigo'

b. ukó   umugoré wé yaréraga   umuhǔ:ngu wâ:bo
    while wife   his 3s-pst-tend-impf son   their

    yabága   yî:ga   kúri iniversite
    3s-pst-be-impf 3s-study at   university

    'while his wife was caring for their son, he studied at the
     university'

c. nári   nî:ze   mbere yó kubónana na   mwâ:limú
    1s-pst-be 1s-study-comp before   to meet with teacher

    'I had studied before seeing the teacher'

The -ba auxiliary, unlike -ri , can be marked for quantitative aspect,
that is whether or not the event-locus represents a single instantiation of
the situation or multiple occurrences. In (21a) we find the former, in (21b)
the latter. In both instances there is emphasis on the fact that the situa-
tion occurred over a period of time. In (21c) there is no indication of an
interval or of duration of the event; rather, the event is treated as a whole
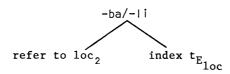with no indication of its temporal dimension.

    These constructions with -ri always appear to have the sense of "E oc-
curs before a point $t_{E_{loc}}$ " or "a moment in E". In effect, we might say that
-ri indexes a particular critical moment in the relationship of
events spoken of and, hence, might be considered to index a temporal juncture.
By contrast, -ba constructions appear to emphasize the durative, continuous
nature of the situation.

6. <u>Summary and Some Conclusions</u>

    I hope, in this brief paper, to have provided evidence against the view
that -ba and -li are semantically empty morphemes and in favor of the

view that they serve an important temporal function. I have argued that they have a dual function. They are *referential* in that they refer to a second lo-cus of orientation and *indexical* in that they index an event from context. This dual function suggests that they are best treated as shifters, in much the same way as, for example, demonstrative pronouns. The dual nature of these two verbs can be visualized as the figure below suggests.

Figure 3. <u>Function of -ba and -li</u>

$$-ba/-li$$

refer to loc_2 index $t_{E_{loc}}$

(The value associated with loc_2 depends on the pragmatic value of $t_{E_{loc}}$, i.e. on what is indexed as the locus.)

The perspective I have presented here of -ba and -li as referential indices provides the basis for explaining much of the semantic and pragmatic behavior of complex "be" expressions throughout the eastern Bantu region. In particular, it explains how temporal relations among several events are indi-cated grammatically and suggests how and why they come to be used at a particu-lar point in discourse.

I have explored here some of the aspects of meaning of the auxiliaries -ba and -li . If we are to come to some fuller understanding of temporal modalities as expressed in such complex constructions as these "be" construc-tions we need to explore more closely the uses of the many other auxiliary verbs found in these languages. And we need to be wary of passing off various elements as "empty" or "meaningless", for it may simply be that we have failed to observe the subtle roles they may play.

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