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# RECONSTRUCTION OF A GRAMMATICALIZED AUXILIARY IN BANTU

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Bantu verbal formatives have frequently developed from grammaticalized auxiliary verbs, as exemplified in the future formative-tafrom -taka 'want' in Kiswahili. In this study the author suggests that a different auxiliary verb, also having a sense of 'desire/ want', is the source of future formatives in various other Bantu languages. In particular, he argues that the future formatives -ɔndɔ-, -ndisya-, -zidza-, and -lembe- found in four widely separated languages — Kimbundu (H21), Kikonzo (J41), Chichewa (N31b) and Kimabiha (P25) — are reflexes of such an auxiliary verb. The processes of grammaticalization, not always regular in these languages, have served to obscure this common origin. If correct, the study points to a wide-spread use of a 'desire/ want' + infinitive structure in Bantu, but one that may employ a different form of the verb 'want' in different languages.

The Bantu languages, as even a cursory glance of the different languages indicates, display a rich variety of verbal tense formatives. Many, and perhaps most, of these formatives have arisen from periphrastic constructions involving an auxiliary verb followed by an infinitive. In fact, Givón (1971:146) claims that (all?) Bantu modality prefixes arose from main verbs dominating sentential complements, most of them independently after dispersal of the Proto-Bantu speech community. The potential for this development was already present, he suggests (Givón 1969:198), 'in the reduced infinitival complement structure of modal verbs, ...such as "want".' However, the common origins of many of the formatives presently extant in the Bantu languages have been obscured as a result of extensive phonological and/or morphological processes. This has led some to state, as does Givón (1971:156), that '...most of the modality prefixes cannot be reconstructed back to Proto-Bantu.' Nevertheless, it is still possible to reconstruct some earlier auxiliary roots and to indicate probable paths of grammaticalization. This paper represents an initial phase of exploration in

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reconstructing some of these auxiliaries, in effect trying to link together some of the diverse forms that occur.

One domain of tense morphology that is especially rich in diversity involves future formatives. These formatives seem to vary considerably from one language to another, as the forms in (1)-(4) attest.

(1)	tu- <b>lembe</b> -ku-tenda	'we will make (remote)'	Kimabiha (P25)
	1P-FUT-INF-make		

These languages – Kimabiha (P25), Kimbundu (H21), Chichewa (N31b), and Kikonzo (J41) (classified according to the Tervuren modification of Guthrie's system; see map in appendix) – will constitute the core of the analysis. In considering the future formatives in these four widely separated languages, I will argue that the source of the formatives can be found in two verbs both having a sense of 'desire'.

### 1. Reanalyzing a root in Kimabiha (P25)

The source of the remote future formative in Kimabiha is readily apparent because neither the full periphrastic form (5b) nor the verb itself (6) has been lost (Harries 1940).

What is not so apparent from these examples is the underlying morphology of the verb stem. The seemingly self-evident answer is that the common Bantu suffixes -el- and -a are attached to a root -lemb-. However, evidence from other Bantu languages suggests that such an analysis is incorrect.

One important piece of evidence comes from languages that exhibit a reflexive (and intransitive) form of a verb in opposition to a transitive form, as in (7) and (8).

(7)	Kipe	ende (K52)	
	(a)	-di-fɛlɛla	'wait in hope; hope'
	(b)	-fɛlɛla	'hope; wait'

8) Kinande (J42)
(a) -yi-tsutsa 'be covetous (intr)'
(b) -tsura 'envy, covet (tr)'

(0) 011 (-0-

Other languages have a reflexive form, but seem to have lost the non-reflexive counterpart (9-10). In some cases the reflexivized form has assumed the meaning and transitivity of the non-reflexive form.

(9)	Chiyao (P25) -li-jila	'await outcome with confidence (intr)'
(10)	Shitembo (J57) -ci-fisha	'desire, have need of (tr?)'

In some areal clusters we find the reflexivized form in one language, but the non-reflexive in a close neighbor, as illustrated below in the case of two southern Zimbabwean languages and Setswana/Sesotho.

(11)	(a)	-di-elezha	'covet'	lla (M63)
	(b)	-le-elezya	'desire strongly'	Chitonga (M64)
(12)		-eletsa	'want'	Setswana (S31)

Comparison of these various data points strongly to a reflexivized form in Kimabiha. While the reflexive marker is listed by Harries (1940) as -li, it is not unknown for Bantu languages to have (or have had) more than one form of this prefix or for the vowel of the prefix to have become lowered. Holoholo (D28b, Coupez 1955), for example, utilizes both -II- and -i- (note that the symbol I is used here to represent a high close front vowel in a seven-vowel system, in place of Guthrie's cedilla). And in the Chitonga example above (11b), we find the reflexive with [e] rather than the more common [i]. Thus, rather than a root of the form -lemb- for Kimabiha, the root of the verb 'want' would be -mbel-, with a fossilized prefix le-. The composition of the stem, then, would be as in (13).

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Evidence supporting a root of this form can be found in several languages. While the initial NC cluster may seem odd for a root, such intrusive nasals are not uncommon in Bantu. For example, we find in Chinsenga (N41; Ranger 1928) -nkala 'be, sit, dwell', which in other languages has the root form -kala. With respect to the general shape of this root, a similar future formative -be- is found in Omyene (B11) as illustrated in (14).

#### (14) zwe-be-jena 'we will see' 1P-FUT-see

Though the original periphrastic construction appears not to exist, this formative most likely derives from the verb *-bela* 'desire', which has undergone final syllable deletion as did *-lembela* in Kimabiha. Several other languages also have a cognate form of this verb 'desire', though it has not become grammaticalized as in Omyene and Kimabiha.

(15) - b	il-am-a	'desire'	Chitonga (M64)
(16) -b	ind-am-a	'desire'	Kikongo (H16)
(17) <i>-li</i>	-vel-a	'covet'	Umbundu (R11)
(18) -L	el-a+bel-a	'desire ardently'	Sesotho (S33)

Further evidence supporting a reflexivized stem in Kimabiha comes from languages closer to the Kimabiha area. In Kimakua (P31) we find a cognate form, though with a slight shift in meaning.

(19) -li-pɛl-a 'expect, hope; await' Kimakua (P31) \*mb > p

In Chigogo (G11), we also find the cognate verb 'want, covet', but without the reflexive prefix.

(20) -hil-a 'want, covet' Chigogo (G11) p > h

What these data suggest is an earlier root of the form -bil- (where [i] represents second degree aperture in a seven vowel system). In Kimabiha, the reflexive/ intransitivizing prefix -li- was added, with subsequent lowering of the vowel in the prefix (either specifically for this verb or through some process of vowel harmony). The prefixless-verb seems to have been lost in Kimabiha, rendering the current morphology opaque.

### 2. Reconstructing a root in Kimbundu (H21)

As in the case with Kimabiha, the source of the future formative is fairly transparent. Chatelain (1964:33) indicates that variant forms of the future construction occur (occurred?) in different dialect areas. These forms (21) represent a continuum of grammaticalization from a periphrastic construction to a completely incorporated formative that has undergone significant phonological changes. The process reflected here resembles the process of clitic reduction discussed by Hock (1986:87) in which consonants and/or vowels of the cliticized element may become weakened and lost.

- (21) (a) tu-anda ku-banga
  - (b) tu-anda u-banga 'we will make'
  - (c) tu-ando-banga
  - (d) tu-anda-banga

The form -anda-, as Chatelain suggests, is the grammatically shortened form of the verb -andala 'want, desire'. Final syllable deletion of auxiliary verbs is quite common in Bantu, being found not only in Kimabiha, but in languages across the Bantu-speaking area, as the examples in (22) illustrate.

- (22) (a) Omyene (B11) -be- < -bela 'desire'
  - (b) Likuba (C27) -bondo- < -bondela 'want; ask for'
  - (c) Kiswahili (G42) -ta- < -taka 'want, desire; ask for'
  - (d) Ciluba (L31) -sa- < -saka 'want'

Final -a of the root and initial u- of the infinitive coalesce to form [5], with subsequent and idiosyncratic (i.e., peculiar to this construction) vowel harmony serving to round and raise the first vowel of the auxiliary.

Having established -andala 'want, desire' as the source of the Kimbundu future formative, we can turn to a consideration of the historical form of the root. In nearby Nyaneka (R13) we find two dialectal variants of the verb 'desire' -handa and -vandya. These are clearly cognates of Kimbundu -andala, and indicate a root of the form -Cand. The [h-] and [v-] suggest an initial bilabial consonant. Further support is found in Ngangela (K19) -yavala 'want (int)'. This verb appears to have the structure -yi-a-val-a, where -yi- is the reflexive prefix. Compare this form with a similar form recorded for Kikongo (H16; Maia 1961).

- (23) (a) di-a-vuna 'covet' Kikongo (H16)
  - (b) -funa 'want' Chichewa (N31b)

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Substantiating this evidence from closely related languages is Guthrie's (1968-1972) comparative/historical work in which he posits a sound change 'b > Ø for Kimbundu. Hence, we can tentatively reconstruct an earlier root '-band-. The suffix -al- appears to be an intransitivizer having a function similar to the reflexive prefix noted earlier; compare it with the verb 'hide' in Sena (N44) and 'spill' in Lwena (Luvale K14) illustrated below.

(24) Lwena (K14) (a) -mwang-a (b) -mwang-al-a 'spill (int.)'

(25) Sena (N44) (a) -bis-a (b) -bis-al-a

'hide (tr.)' 'hide oneself (int.)'

The reconstructed root \*-band- in Kimbundu bears a strong resemblance to the auxiliary root \*-bil- discussed previously for Kimabiha. It appears both probable and plausible that a single root can be reconstructed for these two forms, the Kimbundu form having changed in vowel quality. Comparison of forms in Kikongo (H16b), Chitonga (M64) and Umbundu (R11) that appear to be cognate with Kimbundu -andala suggests an original mid, front vowel in the root, eventually lowered to [a] in Kimbundu.

(26) (a) -bind-am-a (desire' Kikongo (H16b) (b) -bil-am-a (c) -li-vel-a (desire' Chitonga (M64) (mbundu (R11))

While a change of [i] or [e] to [a] might seem unmotivated here, it does appear to be a regular phenomenon in Kimbundu, as other examples can be found. For example, Guthrie (1967) reconstructs a root \*-ced- 'sift', which is realized in the neighboring language of Kikongo (H16) as -sela. In Kimbundo, however, the root is -sala.

We can conclude from this that the original root was of the form \*-bil-, the [n] found in some languages most likely a later intrusive element. If this reconstruction is correct, then the future formatives in Kimbundu and Kimabiha would seem to derive from the same periphrastic construction incorporating reflexes of this auxiliary verb \*-bil-.

# 3. Resurrecting a root in Chichewa (N31b)

Reconstruction of a verbal root is much more difficult for Chichewa than for either Kimabiha or Kimbundu. Direct evidence of an original periphrastic

construction does not exist, nor is there any trace of a verb comparable in form to the future habitual formative. However, there exists extensive circumstantial evidence which, taken together, suggests an earlier periphrastic construction formed from a verb meaning 'desire'.

In his grammar of Chichewa, Watkins (1939) indicates that the future habitual formative in the Kasungu variety of Chichewa produces lengthening in a preceding vowel in the verbal construction, as illustrated in (27a).

(27) (a) ni:ziremba
1S-FUT-write
(b) nizidzaremba

(c) nizidzaremba

Though Watkins lists only the -:zi- form, other varieties of Chichewa exhibit an alternation between -zi- and -zidza- (27b). Final syllable deletion, as noted in the preceding discussions of Kimabiha and Kimbundu, is a common Bantu phenomenon in periphrastic constructions that have become grammaticalized. Given these two phenomena, we can hypothesize an earlier stage in which the formative was of the form -Vzidza-.

The form -Vzidza- can be further decomposed into four constituent morphemes: -Vz-idz-a < -VI-il-Ĭ-a. Supporting evidence for this analysis can be found in neighboring eastern and southern languages.

(28)	(a) (b)	-inlela -li-(i)lila	/ -inl-ɛl-a/ /-li-il-il-a/	'want, covet'	Kimakua (P31) Kimakonde (P23)
	(-,	-li-(i)lizya	/-li-il-il-I-a/	'want a lot'	Chinsenga (N41)
	(d)	-di-elezha	/-di-el-el-i-a/	'covet'	lla (M63)
	(e)	-eletsa	/ -el-el-ī-a/	'want'	Setswana (S31)

We see in these five languages a common root -i(n)l- /-el- closely associated with some sense of 'want'. In some instances (b to d) the reflexive/intransitivizing prefix -li- /-di- appears, generally adding the sense of 'very much' as well as rendering the verb intransitive (i.e., wanting for oneself). In the more southerly languages an -l- suffix has been introduced, which produces spirantization in the preceding consonant [I]. The eastern zone P languages did not insert this suffix, and consequently, the original [I] is still apparent.

The close similarity in form between the future habitual formative -Vzidza-in Chichewa and, for example, -eletsa in Setswana, suggests an original auxiliary verb 'want' for Chichewa similar to, and perhaps cognate with, the Setswana -eletsa. However, there is one apparent problem with such an

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analysis: according to Guthrie's hypothesized sound changes for Chichewa  $^*d > z / _I$  , but we see from the examples in (28) that the original  $^*d$  occurs before [-il-], not [-Il-].

The resolution to this problem can be found in a rather odd rule that appears to have affected certain roots. In the very closely related dialect of Maŋanja (N31c), and in Chichewa (example 30 only), we find a peculiar environment for spirantization of alveolar stops.

- (29) \*-yit- 'name' > -εsa
- (30) \*-ged- 'measure' > -εza

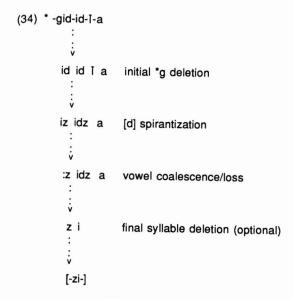
This spirantization of the alveolar stops [t] and [d] occurs only when the initial consonant has been deleted, i.e., when the root has become vowel initial. Compare the cases above with instances in which the initial consonant remains (31-32) and, itself, undergoes weakening.

- (31) \*-bid- 'boil' > -ßira
- (32) \*-ket- 'cut' > -tsεt-εka

We have already established that the root of the future habitual formative was vowel-initial at one stage, -Vz-. Given the nature of the rule outlined above, we can surmise that the V of the root was a mid, front vowel. But we can go further and posit an initial consonant as well. Guthrie has proposed a sound change for Maŋanja (N31c), Nyungwe (N43) and Sena (N44) that deletes an initial \*g in an environment immediately preceding [i] (but [g] remains before other non-close vowels). Most other languages in the region have lost initial \*g in all environments. Hence, we can posit with some assurance an initial [g].

From these circumstantial bits of evidence, we can now reconstruct an original root \*-gid- having a meaning 'want/desire'. While Chichewa itself appears to have lost any trace of this verb, a verb of this form and general meaning does occur in Kikerebe (J24).

Recall that the sense of 'covet' derives from the presence of the intransitivizing/ reflexivizing prefix *li-*. Thus, we have clear evidence of a root \*-gid- meaning 'want/ desire'. In Chichewa, various phonological processes have conspired to reduce the original verbal element to -zi-. The general path of this grammaticalization process is summarized below.



Because the simple indicative remote future formative -dza- — apparently a grammaticalization of -dza 'come' — has the same form as the deleted final syllable of the future habitual formative, the future habitual may have become reinterpreted in some instances as habitual marker -zi- plus future marker -dza-.

In resurrecting a verbal root \*-gid- as the source for the Chichewa future habitual, we have seen that a sequence of phonological rules have combined to obliterate the root itself, leaving only a trace of the original form. From both internal and external evidence we have been able to reconstruct a plausible scenario of grammaticalization that finds support in processes observed both in Chichewa itself and in other Bantu languages. Let us turn now to a consideration of Kikonzo (J41), where the evidence is even less straightforward than in the case of Chichewa.

## 4. Recreating a stem in Kikonzo (J41)

We saw initially in (4) that the remote future formative in Kikonzo is *-ndisya-*, a formative very similar in shape to the Chichewa future habitual. However, the situation in Kikonzo is more complex and ambiguous than it is in Chichewa. In order to appreciate the complexity of Kikonzo non-past for-

matives, it is necessary to examine present and near future constructions These are listed together with the remote future construction in (34-36) for ease of comparison.

(35)	<i>tru-ka-ko:la</i> 1P-T-make		'we are making'
(36) (a) (b)	tru-ka-ndi-ko:la tru-ke-ndi-ko:la	}	'we will make (near)'
(37) (a) (b)	tru-ka-ndisya-ko:la tru-ke-ndisya-ko:la	}	'we will make (remote)'

While the data are open to various analytical interpretations, I will suggest from the outset that -ndisya-, regardless of how speakers might currently interpret it, derives from a single verbal unit, not two independent morphemes. The primary reason for this position is that such an analysis places Kikonzo in what appears to be a widespread group of languages that incorporated a verb 'want' in a periphrastic future construction. As we will see, the evidence supports such a claim.

Note that when the formative -ka- occurs with either -ndi- alone or with -ndisya- the vowel quality is variable, realized either as [a] or [e]. Without one of the future formatives, it is invariably [a]. This variation can also be observed in the negative counterparts of the above constructions which do not incorporate the -ka- formative, but rather an -a-.

(38)	<i>si-tru-li-ko:la</i> NEG-1P-T-make	'we are not making'
(39) (a) (b)	si-trw-a-ndi-ko:la si-trw-e-ndi-ko:la	'we will not make (near)'
(40) (a) (b)	si-trw-a-ndisya-ko:la si-trw-e-ndisya-ko:la	'we will not make (remote)'

There are three plausible explanations for this variation: 1) partial vowel harmony in which the [a] is raised because of the following [i] (note that Kikonzo has a seven vowel system in which [I] is the highest front vowel); 2) vowel coalescence involving the [a] and an initial front vowel on -ndisya-; or 3) an original formative -endisya- which has come to be reanalyzed as -a-/-e- plus

andisya- by analogy with the -ka- plus -ndisya- affirmative paradigm. It is the second possibility that appears to provide the most satisfactory explanation. First, the formative -a- may appear in another negative construction, as illustrated in (41), where it does not harmonize with the following high vowel. That is there is no variation in the vowel quality as noted for the future construction.

(41) si-trw-a-swIrIa 'we did not hit (long ago)' NEG-1P-T-hit

second, there exists a formative -i- which coalesces with -a- and is realized as [e], as in (42).

(42) (a) si-trw-e-tra-ko:la 'we have not worked' /si+tru+a+i+tra+kola/ (b) si-i-tra-ko:la 'I have not worked'

One might suggest that the future constructions also incorporate this -iformative. This, however, does not appear to be the case, since the future constructions (39-40) manifest the [e] vowel in both the negative and affirmative constructions, whereas the -i- formative illustrated in (42) appears only in the negative forms of other constructions. Since this -i- is linked with negation, it seems highly unlikely that it also would appear in affirmative future constructions. Furthermore, the future constructions exhibit a vowel alternation (-a-/-e-) that is not found with this -i- formative.

Since it appears that the observed vowel alternation in the future constructions depends on the presence of -ndi(sya)-, and given the nature of the phonological change observed in (42), we can conclude that the form of the future formative must have been -indisya-, the initial vowel coalescing with a preceding [a] to form [e]. As the grammaticalization process has continued, the presence of the initial vowel has become opaque; analogy with the simple present construction (35) is producing a [ka] in all constructions.

Noting the number of similarities with Chichewa, we might suspect that there was at one time an initial [g]. However, according to Guthrie's hy-Pothesized sound changes, proto-Bantu \*g became [y] in Kikonzo, not [ø]. But consider the reconstructed and current forms (43-44) of some nouns and verbs in Kinande (J42), a closely related variety.1

(43) (a) 'molar' \*-gego > eky-iyo > omw-ibl 'thief'

'act' (44)-gid-/-gid- > -vira/-vira

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What these data suggest is that Kikonzo incorporated a change that involved loss (and glide formation?) of \*g just in that environment where [g] preceded [i], i.e., \*g > Ø / \_i. But recall that we have encountered this rule before in the discussion of Chichewa, where we saw that Maŋanja (N31c), Nyungwe (N43) and Sena (N44) all exhibited the same change. Given this motivated sound change, I propose that the future formative in Kikonzo was, at some earlier stage, -gindisya-, deriving from a root \*-gi(n)d-. Note that this is the same form that we previously reconstructed for the Chichewa future habitual, and which appeared in Kikerebe (J24) as -li-gir-a 'covet, desire'. We can surmise that the Kikonzo root is cognate.

As we did in Chichewa, we can decompose the future formative into constituent elements, and motivate the analysis both through internal and external evidence. The form *-gindisya-*, I propose, originates in the structure /-gind + il +  $\bar{i}$  + a/. The change of [l +  $\bar{i}$ ] to voiceless [c] (written as sy) is attested elsewhere in the language. For example, the class 10 nominal prefix is *esyon*, which developed historically as illustrated in (45).

(47) (a) 12-k0s21-i

Given the viability of the change in Kikonzo, we may consider the source of the formative -I-. One possibility is that it was an extension of the radical, similar to the case of 'want, desire' in Mashi (J53), an intensifier perhaps.

Another possibility is that it was the final suffix of the verbal unit, as exemplified in other central northern languages.

(b) tu-lūmbuk-ī (c) tw-a-kinduk-i	'we are speaking' 'we will cross (one day)'	Mituku (D13) Nyanga (D43)
(48) rhw-aa-gend-i-sunik-a	'we are going to push'	Mashi (J53)

'we will save'

Bobangi (C32)

One apparent problem with such an analysis is the occurrence of the final -a- in Kikonzo. If the original periphrastic construction was like that found in Mashi (48), the occurrence of the final -a- must be explained. This turns out not to be a problem because several languages in this area, Runyankore (J11) and Kikaragwe (J21) for example, exhibit what appears to be an intrusive -a-formative in the remote future construction, as comparison of different

constructions from neighboring Runyankore (49) illustrate. Note the simple -ri- (49b-d) in all but the affirmative indicative (49a).

(49)	(a)	tu-ry <u>a</u> -ta:ya:ya	'we will visit'	Runyankore (J11)
	(b)	si-tu-ri-ta:ya:ya	'we will not visit'	
	(c)	o-ri-ta:ya:ya	'he who will visit'	
	(d)	o-ta-ri-ta:ya:ya	'he who will not visit'	

Whatever the case, whether radical extension or final tense suffix, the *-i*-formative appears to be a common suffix in the languages of this area, and hence it is not surprising to find it in Kikonzo. Thus, a periphrastic construction incorporating an auxiliary root \*-gid- 'desire', presents a plausible analysis—and one that reflects developments in other Bantu languages—of the origins of the Kikonzo future formatives. The interesting thing about Kikonzo is that the common process of final syllable deletion of the grammaticalized auxiliary has resulted in a completely new construction, the near future, and not just in a reduced form of the simple future.

#### 5. Reconsidering the meanings of the reconstructed roots

It seems apparent that the futures in all four languages being considered here developed from similar periphrastic constructions incorporating auxiliaries meaning 'desire, want'. It is not clear, however, that both of these auxiliary roots had this meaning in proto-Bantu. We reconstructed for the two coastal languages, Kimabiha and Kimbundu, an original root of the form \*-bid-, which evolved into -mbɛl- and -and-, respectively. In most instances this root seems to be associated with a meaning of 'want, desire, covet', but in Kimakua (P31) we find -lipɛla 'hope, expect; await'.

A similar situation exists for the two interior languages, Kikonzo and Chichewa, for which we resurrected a root \*-gid-. Although these two languages no longer include a verb derived from this root, in Kikerebe (J24) we find -ligira 'covet, desire', substantiating the occurrence of the verb with this general meaning. However, we also find the cognate form -lijila in Chiyao (P21) (\*g > J / \_\_i,e). But the meaning here is 'await outcome with confidence'. The most probable direction of change is from 'await (expect?)' to 'desire, want'. Thus, we might conclude that the roots \*-bid- and \*-gid- underwent a shift in meaning in most languages to 'desire', subsequently becoming an auxiliary in some languages and undergoing grammaticalization.

#### 6. Some implications and conclusions

This initial exploration of future formatives has interesting implications for Bantu historical work. We have seen that future formatives in four widely separated languages each developed out of a 'desire + infinitive' periphrastic construction. Coupled with our knowledge of languages such as Kiswahili that also employ a 'desire' derived future formative (-ta- from -taka), we can hypothesize a quite widespread use of this type of periphrastic construction for future meaning. However, this reflects widespread occurrence of a syntactic type which has incorporated different forms of a verb 'desire'. Thus, we can suppose that the 'desire + infinitive' construction, as a future, was not part of proto-Bantu, but appeared at a much later date, thereby supporting Givón's (1971) claim that modal prefixes arose at a relatively late date from mainverb/sentential-complement constructions.

We have seen, in addition, that the root of the verb 'desire' can take the reflexive/ intransitivizing prefix -li-, which renders the meaning 'desire very much (for oneself)'. If the non-prefixed form is then lost, the underlying structure tends to become opaque, particularly if phonological changes also affect either the initial consonant or vowel of the prefix.

Through extensive comparison and access to, or reconstruction of, idiosyncratic changes, we are able to reconstruct roots that have become nearly obliterated, such as those in Chichewa and Kikonzo. However, in some languages the grammaticalization process has proceeded so far that there is no internal evidence remaining to support reconstruction. Still, comparison with languages like Chichewa and Kikonzo provide us with plausible, albeit circumstantial, support for proposing similar analyses. Two examples will illustrate this point. In Chigogo (G11) we find the remote future formative -ɔlɔ-and a near future formative -ɔ-. Although there appears to be absolutely no evidence in the language suggesting the origin of these formatives, the analysis presented here suggests a viable one. Chigogo has a verb 'want' of the form -hila (from -pila \*p > h). Assuming processes of vowel coalescence and vowel harmony that we noted in Kimbundu, and creation of a new construction from final syllable deletion, we can posit an original -hila + infinitive construction that evolved as in (50).

(50) -hila ku-root > -hilo-root > -olo-root (remote); -o-root (near)

As we saw earlier in Kimbundu, final -a of the auxiliary and coalesces with u- of the infinitive (a common Bantu change) to produce the mid vowel [3]. Subsequent loss of initial [h] and vowel harmony result in the observed

formative. Similar to what we observed in Kikonzo (section 4) is the loss of the final syllable to produce a near future formative.

In Kiyombe (H12b) a similar problem arises with the remote future - $\epsilon la$ . Here, however, we can note that the language underwent a sound change  $^*g > \emptyset$  (except after N). Thus, we can posit an original - $\epsilon la$  + infinitive construction; lowering of the vowel occurred in the shift from a seven to a five vowel system.

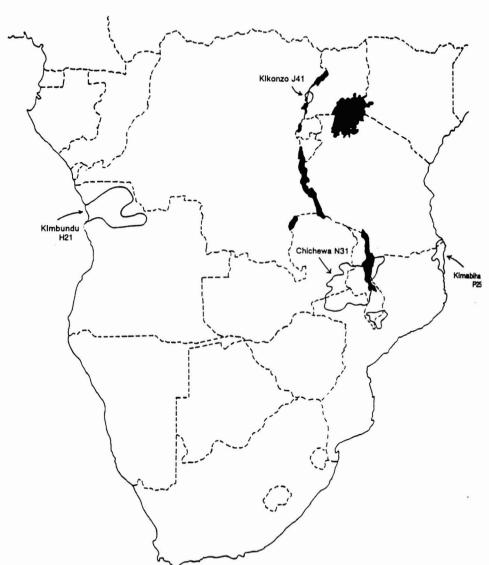
While other explanations of the origins of the future formatives in these languages are certainly possible, the scenario I have presented here provides a coherent overall picture of the development of future formatives in Bantu languages that captures both similarities and differences in their realizations.

#### NOTES

' I would like to thank Charles Bird as well as two anonymous reviewers for SLS for their comments and criticisms on the problems raised in this paper. Their remarks have contributed to making this a better paper. Responsibility for content and any errors naturally lies with me.

<sup>1</sup> I use these items from Kinande because the same are not available for Kikonzo and because these two languages are extremely close, sharing extensive vocabulary and many grammatical elements.

#### **APPENDIX**



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