

## Variation and Word Formation in Proto-Bantu: The Case of \*-YIKAD-

by Robert Botne

In his "Comparative Bantu" (1971), Guthrie reconstructs a Proto-Bantu root \*-YIKAD- "to dwell". His reconstruction represents only the most recent in a series of efforts in this area. In (1) we see that similar forms have been proposed since Meinhof (1899, revised in 1910), continuing on through Homburger (1913), Dempwolff (1916), and Meeussen (1955, 1969).

1) Meinhof (1899)	*- <i>γik-ala</i>	dwell; remain
Meinhof (1910/1932)	*- <i>ik-ala</i>	dwell
Homburger (1913)	*- <i>jikada</i>	dwell
Dempwolff (1916)	*- <i>ikala</i>	stay, remain; sit down (from - <i>ika</i> 'put')
Meeussen (1955, 1969)	*- <i>jjkad-</i>	dwell, [sit]; stay
Guthrie (1971)	*- <i>YIKAD-</i>	dwell.

Most recently, both Meeussen and Guthrie have reconstructed a tri-consonantal root, though they differ (phonemically) in the form of the initial consonant. However, given the seemingly basic nature of this word – "dwell; stay" – reconstruction of a tri-consonantal root appears odd, particularly when one considers that most reconstructed roots in Proto-Bantu are di-consonantal. In a related vein, Meeussen (1955: 177) points out that "[l]e grand nombre de thèmes verbaux commençant par \*jj en bantou commun est assez surprenant" [the large number of verb roots beginning with \*jj in common Bantu is rather surprising]. These peculiarities, taken together with the extensive variation exhibited in supposed reflexes of this root, both in form and meaning, suggest that there is a more complex historical situation than reconstruction of a single root form can account for. In this paper I wish to reconsider the form(s) of the reconstruction for this word and its meaning.

### 1.0 Guthrie's reconstruction of \*-YIKAD-

As his initial step in the reconstruction of a Proto-Bantu form, Guthrie groups into comparative series (C.S.) or partial series (ps)

modern Bantu words that exhibit close similarity in form and meaning. The root forms reconstructed for each series (illustrated in 2) represent variation in evolution from the Proto-Bantu form.

- 2) C.S. 974 \**-kàd-* sit; dwell; be  
 C.S. 2052 \**-yìkad-* sit; dwell  
 C.S. 2053 \**-yìkad-* dwell; be  
 ps. 174 \**-djàd-* sit; dwell.

For the seemingly aberrant form in C.S. 974 Guthrie suggests explicitly that the most likely explanation is to be found in the loss of the initial syllable \**-yì-*, which appears in the forms listed in C.S. 2052 and C.S. 2053. Why this explanation is more likely than, say, affixation of *-yì-* is neither discussed nor supported.

Though Guthrie explicitly raises the issue of the initial syllable, he neglects to do the same for the lack of the final syllable *-la* (< PB \**-da* according to Guthrie) in many modern reflexes (3), thereby implying that such forms lost a final syllable.

- 3) A31c Bube *-a* b,d<sup>1</sup>  
 B74b Buma *-ka* b,e  
 C68 Lonkengo *-ya* b  
 M23 Nyiha *-ya* b, become  
 S54 ShiRonga *-ka* b.

While it is certainly the case that \**-d-* was deleted in some languages – Kiswahili G42, for example, has *-kaa* – Guthrie does not indicate why this final syllable should have been lost in this word alone and not others of similar form in these particular languages. For example, in Buma B74b we find *-tshwal* ‘bring’ < \**-tuad-*, *-swal* ‘choose’ < \**-cakud-*, and *-kal* ‘dry’ < \**-kad-*. If *-ka* in Buma had derived from an initial \**-kada*, one would have to account for the loss of \**-da* here, but its retention in the same environment in other words in the language.

Guthrie views the other seemingly aberrant common Bantu form \**-djàd-* (ps 174) as probably cognate with the other C.S., though he finds the relationship to the Proto-Bantu form obscure. Here there seems to be an oversight on his part as all of the languages in this series have lost \**-k-*, according to his own stated sound changes (Guthrie 1971: 30–1, 39–40). While Guthrie seems correct in reconstructing an initial \**-d-*, it is not clear why this series should have an initial \**-d-* rather than an expected \**-y-*.

Apart from these problems, the data that form the basis of the analyses are flawed in a significant way: the range of data used for his reconstruction does not incorporate forms that must figure significantly in the reconstruction. This involves not only a consideration of potential cognates, but also an examination of the morphological form of related words in the domain of BE, SIT and DWELL. These will be examined in the sections that follow.

## 2.0 Evidence for a prefixed form

The most widespread reflexes of the supposed \**-YĪKAD-* root are variants of the form *-KAL-* (< \**-KAD-*). A selection of these is listed in (4) and (5) below.

4)	<i>-kala</i>		b,d	
B63	Ndumu	<i>-kala (ntfina)</i>	b,d,(bs)	
B82	Boma	<i>-kæ:</i>	b,(d?)	* <i>-ala &gt; æ:</i>
B85	Yansi	<i>-kal</i>	b,d	
B86	Idzing	<i>-kaa</i>	b	* <i>d &gt; ∅</i>
C35	Bolia	<i>-yal(ela)</i>	b(d)	* <i>k &gt; ∅</i>
C41	Lingombe	<i>-d(ana)</i>	b,d,(s)	
C45	Lebeo	<i>-la</i>	b	
H12b	Kiyombe	<i>-kala</i>	d	
H21	Kimbundu	<i>-kala</i>	b,d	
K52	Kipende	<i>-kal(ela)</i>	b,(d,s),r	
R13	Nyaneka	<i>-kala</i>	b,d,r	
R21	Kwanyama	<i>-kala (omutumba)</i>	b,d,(bs,s),r	
R31	Chiherero	<i>-kara (pehi)</i>	b,d,(s)	
5)	<i>-kala</i>		(b),d,s	

F25	Kibungu	<i>-kala pansi</i>	s	
G12	Kikaguru	<i>-kala</i>	d,s	
G36	Kikami	<i>-kalla (hasi)</i>	d,(s self),r	
G42	Kiswahili	<i>-kaa</i>	d,s,r	* <i>d &gt; ∅</i>
K33	Kwangari	<i>-kara</i>	b,s,r	
K38	Mbukusha	<i>-kara</i>	b,d,s,r	
M51	Bisa	<i>-kala</i>	b,d,s	
M63	Ila	<i>-kala</i>	d,s,settle	

N41	Chinsenga	-kala	s
N44	Chisena	-kala	b,s,r

The meaning of this verb in the various languages is surprisingly consistent: 'be' and 'dwell' in most of them. We find deviations from this primarily in the eastern languages – particularly in zones F and G – where the meaning 'be' has been lost in many instances, having become associated almost exclusively with *-ba* and, in some cases, the suppletive *-li*. Furthermore, in both the eastern and southern languages (5) *-kala* has the meaning 'sit' as well. The overall picture these data suggest is one of late extension of the use of this verb to cover the sense SIT, primarily occurring regionally, in the east and the south of the Bantu sphere.

Guthrie's PB reconstruction *\*-yikad-* implies that these languages ostensibly lost the initial syllable, resulting in the modern *-KALA* forms. However, if we compare some of Guthrie's other *\*-yi-* initial roots with their modern reflexes in these languages, we find that they have retained an initial [i] ([j] in seven-vowel systems). In Nyaneka R13, for example, we find *-ipaa* 'kill' < *\*-yipag-* and *-imuka* 'rise from a sitting position' < *\*-yimuk-*. In Ila M63 we find *-imita* 'become pregnant' < *\*-yimit-* and *-ikuta* 'be satiated with food' < *\*-yikut-*. If the *-KALA* forms had evolved from an original *\*-yi-* initial root, we would expect to find them behaving in a manner similar to that observed for other such roots. The fact that we do not suggests that the original form did not have initial *\*-yi-* (or *\*-ji-* in Meeussen's reconstruction). Rather, a prefix of the form *-li-* or *-i-* was added to this root in some languages, but not in all.

Consider now some of the languages that exhibit reflexes having incorporated an initial prefix, such as those listed in the tables in (6) and (7).

6)	<i>-likala</i>		s,(d)	
A15f	Bakaa	-dyaa	s	$\left. \begin{array}{l} *k > \theta, *d > \theta \\ *d > d/_i, *k > \theta \\ *k > \gamma, *d > \theta \\ *k > x (> g?) \end{array} \right\}$
A34	Benga	-dyala	s,d	
B31	Mitsogo	-dygaa	b,(s,d?),r	
B52	Njebi	-dyagala	s,(d?)	
C32	Bobangi	-zala	s,d,b	$*k > \theta, *d > z/_i (a)$
J31c	Bukusu	-jixala	s	$*k > x, *d > j/_i (??)$
L23	Kisonge	-jadila	s,d	$*k > \theta, *d > j/_i, > d/_i$
L33	Chiluba-kasai	-jyalala	s	$*k > \theta, *d > z/_i$

7)	<i>-ikala</i>		s,(d?)	
D14	Enya	-ikaa	s	$*d > \theta$
D25	Kilega	-ikal	bs	
E51	Gikuyu	-ikara (thi)	d,b,(s)	
F23	Shisumbwa	-ikara	s	
F32	Kirimi	-ikhae	s	$*d > \theta ??$
J24	Luganda	-kkalira	s at ease, be settled	$*-ik- > -kk-$
J42	Kinande	-ikala	s,d	
J57	Shitembo	-ikála	s,d,r	
J61	Kinyarwanda	-icara	s, settle	$*-ik- > -it/$
L41	Kaonde	-ikala	s,d,b	
M41	Kitabwa	-ikala	s,d	
N21	Chitumbuka	-khara	s,r	$*-ik- > -k^h-$
N31	Chichewa	-khara	s,d,b	$*-ik- > -k^h-$
N43	Chinyungwe	-k'ara	s,d,b	$*-ik- > -k'-$
S14	Chikaranga	-gara	bs,d	$*-ik- > -g-$
S43	Siswati	-hlala	s,d	$*-ik- > -hl-$

The pervasive, and only invariable, meaning among the *-(l)ikala* forms in (6–7) is 'sit'. Compare these with the *-kala* forms in (4–5) which also have the meaning "sit". Note that "sit" is often a derived sense of the verb, requiring either a nominal argument indicating place (e.g. *omutumba* or *hasi*) or a suffixal element, as in Lingombe and Kipende (4) or in Kibungu and Kikami (5). An analysis deriving all the variant forms from an original root *\*-jikad-* or *\*yikad-* 'dwell' as hypothesized by Meeussen and Guthrie, respectively, cannot account for the variation in a motivated manner. But an analysis can be motivated by positing an original form *\*-kala* with the meaning 'be, dwell' and treating *-li-* or *-i-* (Guthrie's initial syllable *\*-yi-*) as a derivational prefix. That is, the original root has shifted or extended its meaning to 'sit' either through the addition of a nominal argument indicating place, or through affixation via a suffix or a prefix, the prefix being the most common vehicle and realized in (6–7) as *-li-* or *-i-*, respectively. The use of *-KALA* alone to mean 'sit' in most cases in (5) can be accounted for via spread of the sense 'SIT' throughout east and southern Africa.

## 3.0 Role of the prefix

If we accept this prefix hypothesis – i. e., that  $-(l)i-$  was not originally an inherent part of the root, but rather a prefix affixed to the root – then we need to consider what the role of this prefix was and how the different forms of it can be accounted for. I suggested above that the initial prefix was originally a valency changing prefix, and that different languages had different affixes, and forms of a particular affix, to draw upon. Probably the prefix had the same origin as the reflexive prefix found in most of the Bantu languages. In many languages, in fact, the two have the same form. Both in its sense as ‘be’ and as ‘dwell’,  $-KALA$  would have required a locative argument; a reduction in valency would plausibly be associated with a shift of meaning to ‘sit’. This shift is most likely the consequence of a change in valency through the addition of a prefix. Thus, though  $-kala$  may once have required a locative argument, as in  $-kala pansi$  ‘sit (lit. be situated on ground)’, it became intransitive through addition of a particular prefix, for example,  $-li-kala$  ‘sit’.

Evidence supporting this prefix hypothesis can be found in a number of places. First, in Holoholo D28b there exists an alternation in the reflexive prefix between  $-li-$  and  $-i-$ , hence either *nandilolaga* or *nanilolaga* ‘I looked at myself’<sup>2</sup>. Thus, this one morphological element exhibits the same type of alternation as that observed in the  $-KALA$  cases in (6) and (7). Second, in Mongo C61 we find  $-yaa$  ‘be, dwell’ ( $*-k- > \emptyset$ ) and in Ebuja C37  $-yaka$  ‘be (dwell?, sit?)’. In both languages the reflexive marker is  $-ya-$ , and so we would have the morphologically complex forms  $-ya+a$  and  $-ya+ka$ , respectively. Moreover, in Ebuja an alternative form of the same verb is  $-lika$  ‘be’, undoubtedly  $-li-ka$ . It is quite likely that  $-ya-$ , itself, is a combination of  $-i-$  plus  $-a-$ , where  $-i-$  represents a variant of the reflexive form we have already noted and  $-a-$  is another valency-associated marker (cf. Polak 1983: 295). This type of double marking of a reflexive is not unknown in the Bantu languages, as it can be found in several others. In Mashi J53, Polak-Bynon (1975: 211) reports cases in which two reflexive prefixes may appear in the same verbal construction, the first of which is optional, as in (8).

- 8) *b-aa-ci-rhw-ii-shog-er-a* Mashi J53  
 3P-FUT-RFL-1P-RFL-choose-BEN-FV  
 ‘They will (themselves?) choose for us.’

She reports the same doubling of markers for Kihavu J52,  $-ki:- /-ki+i- /-$ . This combination is of particular interest because Johnston (1919–1922) records both  $-kikala$  and  $-ikala$  for ‘sit’ in Kimakonde P23 and Kimabiha P25, and Polak herself lists alternative forms  $-ki-$  and  $-i-$  for Kaguru G12.

We also find other cases that incorporate  $-a-$  as a reflexive element. In Duala A24, according to Ittmann (1939), we find a double affixation for reflexives, incorporating  $a-$  as a prefix.

- 9) a. *sés-à* praise, laud Duala A24  
 b. *á-ses-ě* boast (i. e., praise oneself).

Similarly, in Mitsogo B31 the sole reflexive marker is  $-a-$ , as in (10).

- 10) a. *e-djoa* to kill Mitsogo B31  
 b. *e-a-djoa* to kill oneself.

In Mashi, an  $-a-$  occurs with what appears to be another prefixal element,  $-bu-$ , as illustrated in (11a).

- 11) forms for ‘sit’ in Mashi J53  
 a.  $-bw-aa-rhala$  (*rh* = voiceless trilled fricative)  
 b.  $-tamala$   
 c.  $-bu-tamala / -bu-rhamala$ .

That  $-bu-$  is, indeed, a prefix is confirmed by comparison of several eastern languages that have similar forms. In (12) we see that we can reconstruct an original root  $*-t-$ , to which various affixes have been attached,  $-bu-$  indicating a ‘crouching’ or ‘squatting’ sitting position.

- 12)  $*-t-$   
 a.  $-po-t-a$  crouch Duala A24  
 $-bw-a-t-a$  crouch Chiyao P21  
 $-by-a-t-a$  squat on heels Chikaranga S14  
 b.  $-bu-nd-ar-a$  crouch Lunyoro J11  
 $-bu-t-am-a$  crouch Kinyarwanda J61  
 $-u-t-am-a$  crouch Chiyao P21  
 c.  $-ts-am-a$  [ $-t-i-am-a$ ] sit Shitswa S51  
 $-t-f-am-is-a$  sit Shironga S54  
 $-t-am-a$  sit Chiyao P21,  
 Kimatumbi P13  
 $-t-am-a$  (*pahi*) dwell, remain; (sit) Kimatengo N13.

In Chiyao P21 we also find both *-bu-* and *-a-* with a partially reduplicated stem, the same stem that we observed in Mashii (11a).

13) *-bw-aa-tatala* crouch Chiyao P21.

Since reduplication does not occur (as far as I am aware) root-internally in Bantu, then we must have here a case of prefixation. Comparable forms in Luganda J24 and Isizulu S42, when compared with Chiyao, support the contention that *-bu-* and *-a-* are separate elements.

14) *-bu-tantala* sit spread out Luganda J24

15) *-bu-tʰalala* crouch down, squat Isizulu S42.

That *-bu-* was a reflexive-type marker is supported by evidence from Ewondo A72, illustrated in (16), where the marker is a suffix *-bV*, whose vowel harmonizes with the preceding one.

16) *-to-a* be seated  
*-to-bo* sit (seat oneself).

In Tunen A44 the presumably cognate prefixes *-bi-/bi-* (according to vowel harmony) function as the reflexive markers. And in Otetela C71, providing perhaps the most illustrative example, there appears the verb *-jjaase* “be seated, dwell, remain”, infinitival form *m-bijaase*. A reconstruction and analysis of *m-bijaase* illustrates how a once monosyllabic root *-ka-* has acquired and assimilated two verbal prefixes. The stem *-ka-* and its argument *asi* “ground” coalesced to produce *-kaasi*. The final vowel [e] resulted from the coalescence of [i] with the normal verb-final vowel [a]. The loss of the argument through coalescence resulted in affixation of *-li-* (< *\*-di-*), a valency-reducing morpheme. Proto-Bantu *\*-k-* then became deleted in root-initial position, rendering *-lʷaase*. The opacity of the structure led to affixation of *-bi-*, another valency-reducing prefix. Guthrie (1971) claims that the sequence *\*-bid-* became [ɔ̃j]. However, it is apparent from the infinitival form that *-lʷ-* (< *\*-di-*) must have shifted to [j] first (*-lʷ- > ɔ̃/i*) with subsequent loss of [b] except after a nasal, and concomitant loss of [j] and gemination of [j]. Thus, *-jjaase* would have evolved from /*bɔ̃+di-+ka#asi#a*/, where *-ka-* is the root for “be” and *asi* is the word for “ground”. Compare this analysis with the equivalent words in Mituku D13, *-lika* “be seated” and *-ikuca asi* “sit” (*asi* = ground) and in Umbundu R11 *-kasi* “be” (*-ka+osi*

“ground”). In Otetela the separate word *asi* has been incorporated completely into the stem, even to the extent that the normal final verbal vowel *-a* has been added; and, by comparison with Mituku *-lika*, it is readily apparent that *-bi-* is a separate prefix. Thus, returning to the original claim, *-bu-* (and *-bi-* in some languages) is a verbal affix which seems to have had, at least originally, a valency-reducing function. Furthermore, this affix was only one of several that could fulfill this function, as the examples cited here attest.

In addition to these indirect examples from various languages, direct evidence for an initial prefix in the *-KALA* case is found in Bobangi C32, where we find both the prefix *-bo-* and partial reduplication of the root *-kala*.

17) *-bo-kakala* crouch Bobangi C32  
*-zala* sit (< *li+kala*).

Further evidence supporting an initial prefix can be adduced from the behavior of verbs having similar meaning. For several languages we find a modern root *-kun-* that occurs with and without a prefix (19 and 18, respectively). In two instances the prefix has coalesced with the initial consonant producing [s].

18)		<i>-kun-a</i>	crouch	
M41	Kitabwa	<i>-kona</i>	s on heels	
S21	Venda	<i>-khukhuna</i>	crouch	
S32	N. Sesotho	<i>-khunama</i>	kneel	
19)		<i>-i-kun-a</i>	crouch	
A72a	Ewondo	<i>-sono</i>	b crouched	<i>*-ik- &gt; -ic- &gt; s</i>
C83	Bushoŋ	<i>-ʃɔn`m</i>	kneel	<i>*-ik- &gt; -ic- &gt; ʃ</i>
E51	Gikuyu	<i>-ikuna</i>	s on heels	
F22	Kinyamwezi	<i>-ikona</i>	squat	
R21	Kwanyama	<i>-suna</i>	crouch	<i>*-ik- &gt; -ic- &gt; s.</i>

More widespread is the root *-kut-*, which occurs in some languages with prefix *-i-* or *-i-*, but in others with suffix *-am-* and a slightly different meaning, as illustrated in the tables in (20), (21) and (22).

(20) a.		<i>-kut-a</i>	kneel w/haunches on heels
A72a	Ewondo	<i>-kút</i>	kneel
B61	Mbede	<i>-wuda</i>	kneel
B63	Ndumu	<i>-futa</i>	kneel
B77b	Ifumu	<i>-fura</i>	kneel
G42	Kiswahili	<i>-ota</i>	s, squat
K33	Kwangali	<i>-kuta</i>	bs
S44	Ndebele	<i>-qutha</i>	squat
b.		<i>-kut-am-a</i>	squat
B43	Punu	<i>-kutama</i>	kneel
		<i>-kutisa</i>	make kneel
G42	Kiswahili	<i>-otama</i>	be in squatting position
M41	Kitabwa	<i>-kontama</i>	crouch
S21	Venda	<i>-kotama</i>	kneel
S32	N. Sesotho	<i>-kotama</i>	s
S33	S. Sesotho	<i>-gotama</i>	squat
21) a.		<i>-i-kut-a</i>	bs
F22	Kinyamwezi	<i>-iguta</i>	bs
G62	Kihehe	<i>-iguta</i>	bs
J22	Lusiba	<i>-iguta</i>	bs
M23	Kinyiha	<i>-ikutha</i>	bs
N13	Kimatengo	<i>-yukuta</i>	bs
P23	Kimakonde	<i>-ikuta</i>	bs
S43	Kingoni	<i>-suta</i>	bs
		<i>-i-nkut-a</i>	squat
S53	Shitsonga	<i>-ntlunila</i>	squat
21) b.		<i>-i-kut-am-a</i>	s on heels
C36	Lingala	<i>-sotama</i>	s on heels
G42	Kiswahili	<i>-chutama</i>	s on heels
J11	Runyankore	<i>-shutama</i>	s
J15	Luganda	<i>-sutama</i>	s on haunches

J22	Ruhaya	<i>-shuntama</i>	s
J42	Kinande	<i>-sunama</i>	s on heels, squat
J53	Mashi	<i>-shutama</i>	s
J61	Kinyarwanda	<i>-sutama</i>	squat
M63	Ila	<i>-suntama</i>	kneel
		<i>-i-nkut-am-a</i>	squat
A43	Basaa	<i>-nyondab</i>	squat, crouch
A44	Tunen	<i>-nyjtem</i>	s on heels
C32	Bobangi	<i>-noteme</i>	s on haunches
K38	Mbukushu	<i>-nyotama</i>	squat
S54	Shironga	<i>-ntlhantlhamama</i>	squat
22) a.		<i>-i-kut-i-a</i>	s
D13	Mituku	<i>-ikuca asi</i>	s
b.		<i>(-i)-kut-i-am-a</i>	s on haunches
C61	Lonkundo	<i>-sonjama</i>	squat
C61	Kilolo	<i>-sonzama</i>	s on haunches
F32	Kirimi	<i>-susama</i>	squat
L23	Kisonge	<i>-ozama</i>	crouch
S33	S. Sesotho	<i>-kotsama</i>	s, crouch
S44	Ndebele	<i>-gotshama</i>	s on haunches.

In several instances we find more than one reflex of the root in the language, each having different affixes. In (23), we see that in Southern Sesotho there are alternate reflexes of the stem *-kut+i-*, one having the prefix *-re-* the other the suffix *-am-*, both forms having the meanings 'sit' and 'crouch'.

23) a.	<i>-kots-am-a</i>	} sit, crouch	S. Sesotho S33
b.	<i>-re-kots-a</i>		

In Lingala, there occur several forms with traces of an initial prefix *-i-* (24), as well as a more recently derived form that now incorporates the current reflexive prefix *mi-* (25).

24) a.	<i>-sot-am-a</i>	} sit on heels	Lingala C36d
b.	<i>-sond-am-a</i>		
25)	<i>-mi-sosond-e</i>	sit on heels	

Another verb also exists in Lingala with the same meanings as those in (24–25), *-kusama* ‘sit on heels’. Compare this verb with its cognate in Otetela C71 (26).

- 26) *-ekusekuse* [*e-kus-e-kus-e*] be kneeling/squatting with haunches on heels.  
*e* < *\*-j+a*

While the root here would appear to be *-kut-* as in (20–22), in fact it is *-kuk-*, which Guthrie (1971) reconstructs (incorrectly) as *\*-kúkam-* ‘kneel’. Different affixes have been attached to this root as exemplified by the words in (26) above, and (27) below.

27)		<i>-kúk-am-a</i>	kneel	
J15	Luganda	<i>-fukamira</i>	kneel	<i>*k &gt; f/_y</i>
J42	Kinande	<i>-kukama</i>	kneel	
P31	Imakua	<i>-kokhora</i>	kneel	
R11	Umbundu	<i>-kekamisa</i>	kneel	<i>*e, y &gt; e</i> .

What is significant about these data, and the preceding examples, is that they illustrate what appears to have been a predilection in Bantu for adding valency changing affixes to roots for ‘dwell’ or ‘sit’. Given this widespread phenomenon, it is not surprising, then, that the *-KALA* root should prove to be one more instance of this. In most languages one form eventually acquired the entire range of meanings from ‘be’ to ‘dwell’ and ‘sit’. In others, there still exist multiple forms because the form of the prefix varied from one area to another. Consequently, we now find the kinds of differences noted earlier in the initial syllable.

In sum, we have seen in this section that historically the stem-initial variation that has been observed in *-KALA* cognates is the consequence of prefixation. The prefix seems to have had the role of changing, usually reducing, the valency of the root, its particular form depending on the choices available in a particular language. Having considered the issue of the initial syllable in Guthrie’s *\*-YIKAD-*, we will now turn to the issue of the final syllable.

#### 4.0 Evidence for a root *-k(a)-*

Although Guthrie lists only two languages that have the form *-KA*, there appear to be many more that have this form, all of which have the sense ‘be’ (28).

28)		<i>-ka</i>	b	
A15f	Bakaa	<i>-ko</i>	b,e	
A31c	Bube	<i>-a</i>	b,d	<i>*k &gt; θ</i>
B61	Mbede	<i>-ka</i>	b	
B74b	Buma	<i>-ka</i>	b,e	
B83	Mfinu	<i>-ka</i>	b	
C34	Sakata	<i>-ka, -ke</i>	b	
C68	Lonkengo	<i>-ya</i>	b	<i>*k &gt; θ</i>
G44b	Shingazija	<i>-k-, -ka</i>	b	
G44b	Shimaore	<i>-ka</i>	b,d	
M23	Kinyiha	<i>-ya</i>	b, become	<i>*k &gt; θ</i>
S54	Shironga	<i>-ka</i>	b	

The homogeneity of meaning exhibited across the languages in (28) is significant. If the examples listed were really mutated forms of *\*-yikala* or even *\*-kala*, we might expect there to be a wider range of variation in meaning – including ‘sit’ and ‘dwell’ – such as that found among the languages exhibiting a reflex of *\*-kala*, as seen previously in (4) and (5). The consistency in meaning and form across these languages suggests that this form was already present in Proto-Bantu as one form for ‘be’.

The root *-ka* can be observed also in derived stems. In (29), illustrating examples from two languages of zone R, we note not only the occurrence of a *-ka* stem (derived from *-ka+osi/ehi* ‘ground’), but also its opposition to *-kala*.

(29)		<i>-ka-si</i>	b	<i>-kal-a</i>	e,d
R11	Umbundu	<i>-kasi</i>	b	<i>-kala</i>	e,d
R13	Nyaneka	<i>-kahi</i>	b	<i>-kala</i>	b,d

It seems unlikely that *-kasi* is derived from *-kala* plus *osi/ehi* with loss of the final *-la* syllable. Thus, we must conclude that *-ka* was a root in Proto-Bantu.

Additional evidence for a monosyllabic root *-ka* comes from extended forms incorporating the suffix *-an-*, as illustrated by the examples in (30).

30) a.		<i>-k-an-a</i>	s
C56	Homa (w)	<i>-kana</i>	s
D21	Bua (nw)	<i>-kana</i>	s

b.		<i>-i-k-an-as</i> , (d.)		
A43	Basaa	<i>-iŷen</i>	s,d	*k > ̸, *a > e/i̇
B43	Punu	<i>-tsa:na</i>	bs	*nc > ts (*k > c/i̇??)
D54	Bembe	<i>-jana</i>	s(d?)	*k > ̸
L21?	Moyo (w)	<i>-ñkana</i>	s(d?)	

The medial [n] does not appear to be a nasal reflex of \*-d- since there is no evidence from any of the languages that \*-d- > [n]. In Kijholoholo D28b, which has a seemingly cognate form *-ikana* 'become seated' (though note that the initial vowel is 2nd degree in aperture), Proto-Bantu \*-d- — whether part of the root or part of the verbal extension \*-ad- — became [l] as in *\*-bɔad- > -byala* 'give birth to' and *\*-cyb-ad- > -subala* 'urinate'. Moreover, in Basaa A43 we have direct evidence of suffixal -n, as one finds the suffixless form with the meaning "be" (31).

31)	Basaa A43	<i>-iŷe</i>	be
		<i>-iŷen</i>	sit, dwell.

Reflexes of *-kala* have also appeared with this suffix, but only when the initial syllable has been lost, leaving only *-la/-da*, as illustrated by the two examples in (32).

32) a.	Lingombe C41	<i>-da</i>	b,d
		<i>-dana</i>	bs,s
	b. Setswana S31	<i>-nna</i>	b,s (-l-an-a > -nna ??)

Nor does [n] appear to be an instance of the reciprocal extension *-an-*. Rather, it appears to be a rare occurrence of the neuter extension *-an-* (cf. Guthrie's C.S. 2186). Thus, in Kijholoholo, for instance, we find *-ik-i* 'sit, dwell' versus *-ik-an-a* 'become seated'.

Across the northern sphere of the Bantu-speaking region many reflexes of *-ka* occur with prefix *-i-* or *-li-*, as in (33) and (34).

33)		<i>-i-ka</i>	s, (d?)	
	A31c	Bube	<i>-itʃa</i>	s, (d?) * (k >) c > tʃ
	C36a	Poto	<i>-ika</i>	s, (d?)
34)		<i>-li-ka</i>	s,d	
	A15	Bafo	<i>-dye/-dya</i>	s, (d) *k > ̸
	A22	Bakwiri	<i>-lia</i>	s,d *k > ̸

A32a	Noho	<i>-ja</i>	bs,s,d	*k > ̸
A33b	Kombe	<i>-dja</i>	s,d,b	*d > d/i̇, *d > ̸, *k > ̸
A81	Ngumba	<i>-ji</i>	s,d	*d > j/i̇, ka > ̸
C45	Lebeo	<i>-lia</i>	bs,d	*k > ̸
D21	Bali	<i>-dike</i>	s(d?)	
D32	Bira	<i>-rika</i>	s(b,d?)	
D43	Nyanga	<i>-rika</i>	bs,s,d,b.	

What all of these data lead us to conclude is that there was an original root of the form *\*-ka* which, in some languages, acquired an affix, either an enclitic such as *-si*, the neuter suffix *-an-* (thereby deriving the sense 'be(come) seated'), or a valency changing prefix such as *-i-* which seems to have contributed the additional sense "dwell".

In other languages the root *-ka* appears to have taken a different prefix — *-ci-* (from *-ki-*?) — occurring at times with a suffix *-ah-*, *-am-* or *-at-*, as illustrated by the set of examples in (35).

35)		<i>-ci-k-(aC)-a</i> settle down		
B61	Mbede	<i>-yiha</i>	d	
B63	Ndumu	<i>-nisaha</i>	settle down	*nc > n, *k > c/i̇ > s
B63	Nyani	<i>-siha</i>	d	*c > s, *k > h
C83	Bushoŋ	<i>-fik</i>	bs	*c > ʃ
D37	Kumu	<i>-ika</i>	s, live	*c > ̸
G62	Kihehe	<i>-ika</i>	d	*c > h > ̸
J61	Kinyarwanda	<i>-ʃika</i>	s, settle	*c > ʃ/i̇
L31	Luba-kasai	<i>-fikama,</i> <i>-fikata</i>	d, settle down	*c > ʃ/i̇,i
L32	Kanyoka	<i>-fikata</i>	s	
P31	Kimakua	<i>-hala</i>	be situated,r	*ci- > h, *k > ̸
R31	Chiherero	<i>-haama</i>	s	* (k > c/i̇) c > h.

It is clear from the examples above that suffixes have been added to the root in some languages; note that in Ndumu the suffix *-ah-* is the reflexive suffix in the language. The example from Chiherero R31



confirms that the root could not have been *\*-cjk-* or *\*-kjk-*, because in either case the reflex of the initial stop would be *[s]* and the vowel *[e]*, as in *-sesenga* ‘rub’ (< *\*-cɲng-* ‘rub’), *-sema* ‘shallow well’ (< *\*-cɲm-* ‘well’) or *otɕi-sema* ‘thick porridge’ (< *\*-kɲma* ‘mush’). Consequently, there must have been simply a prefix *-ɲ-*, resulting in palatalization of the following stop and subsequent shift to *[h]*. The verb *-hara* ‘become’ undoubtedly derived from *-ɲ-kara*, the form we have been investigating throughout.

That initial *cɲ-* should be considered a prefix and not part of the stem finds further support in two languages from zone L, as illustrated by the cognate forms in (36) for Kete (L21) and Lunda (L52).

- 36) a. L21 Kete *-isakama* sit  
 b. L52 Lunda *-sakama* dwell, sit *\*cɲ-* > *ɕ*.

In each there occurs an *[a]* (underlined) where an *[i]* would be expected. We have seen previously that some languages have incorporated an *-a-* prefix with stems of this kind, suggesting that this may be the same here. In Lunda *\*cɲ-* > *ɕ*, suggesting an historical form */cɲ+a+k+am+a/*, where *-k-* is the root. In Kete the additional reflexive prefix *i-* has also been prefixed.

### 5.0 *-ka* versus *-kala*

We saw initially (1) that Meinhof reconstructed an original Ur-Bantu form made up of a root *\*(ɣ)ik-* plus suffix *\*-ala*. We have already seen that this so-called root consisted of a prefix plus root *-k-*. However, given that a suffix *\*-ad-* is reconstructable for Proto-Bantu, though in an incipient stage at the time, it would appear at first glance that Meinhof was correct in positing a form with the *-al-a* suffixes. A brief look at other Niger-Congo languages (37) suggests, though, that the *-al-* was already part of the root by the time of Proto-Bantu.

37)	Atlantic	Sherbro	<i>che</i>	b
			<i>chal</i>	s
	Gur	Konkombe	<i>ka</i>	bs,s
			<i>kal</i>	s,d

Kwa (new)	Chakosi	<i>ka</i>	r in a place
	Fante	<i>ko</i>	s, r
Adamawa-Ubangi	Mbum	<i>kab</i>	s,(d)
		<i>/ka+po/</i>	
	Ngbandi	<i>ka</i>	near, in, on
		(cf. <i>lo ka ya ndo</i>	
		3S in forest	
		‘He’s in the forest’)	
Benue-Congo (new)	Edo	<i>ke</i>	b
	Yoruba	<i>kalè</i>	set down; seat; sit down
		<i>/ka+ile/</i>	
		<i>ikalè (n)</i>	sitting down.

In both Sherbro (Atlantic) and Konkombe (Gur) we find the same opposition of forms, with basically the same opposition in meanings, as noted previously for Bantu. In both Adamawa-Ubangi and (new) Benue-Congo (Williamson 1989) we find languages that have di-consonantal forms for ‘sit’, *-kab* in Mbum and *-kale* in Yoruba. Both are clearly derived forms, the first from ‘be’ plus ‘village’, the second from ‘be’ plus ‘ground’. What we can surmise is that Niger-Congo had an original root *-ka<sup>3</sup>*. It became collocated with some locative expression such as ‘ground’ or ‘village’, and took on the sense of ‘occupy a space, dwell’, in some instances ‘sit’. By the time of Proto-Bantu both forms existed in the language, *-ka* most likely having the meaning ‘be (in a place)’, *-kala* the meanings ‘be; dwell’.

If the form *-kala* was already extant in Prot-Bantu, it is quite possible that the verb form was reanalyzed in some languages as */-k-al-a/*, a factor that might account for the extension of meaning to ‘sit’ in some eastern languages that did not add a valency-reducing prefix (section 2.0), since the Bantu verb suffix *-al-* was a valency-changing suffix, much like the prefixes mentioned early in the discussion.

Direct evidence for an original form *-ka* versus *-kala* opposition in Bantu comes from Benga A34, Taita E74 and Kesukuma F21. In Benga the two roots take similar prefixes, though they differ in vowel aperture and the meanings ‘be’ and ‘sit’.

- 38) a. *-dyala* /-d<sub>i</sub>-kal-a/ 'sit, dwell' Benga A34  
 b. *-diya* /-di-k-a/ 'be, dwell'

In Taita we find two forms, both with the meaning 'sit' (39).

- 39) a. *-kala* /-kal-a/ } sit  
 b. *-kata* /-k-at-a/ } Taita E74

In Kesukuma, we also note two verbs, one meaning 'sit', the other 'dwell' (40).

- 40) a. *-ikala* /-i-kal-a/ 'dwell' Kesukuma F21  
 b. *-igaasya* /-i-k-aasy-a/ 'sit' (\*k > g/\_VÇ)

The suffix *-aasy-* in (40b), like that in Otetela (see discussion on page 254), derives from the word *haasi* "on the ground", which has become fully incorporated into the stem. If there had been only an original proto-root of the form *-kala*, we would have to explain why the deletion of certain segments occurred when *-aasy-* was added (40b). A much simpler answer is available if we posit two original roots, one having the form *-ka-*, the other *-kal-*.

## 6.0 Internal variation

We have argued throughout that Guthrie's reconstructed root *\*-YIKAD-* should be analyzed as prefix plus root, and that there were in all likelihood two historically related roots at the time of Proto-Bantu. However, the problem is not yet resolved completely, as there occur similar forms in a number of languages that differ only in the initial vowel quality, and are semantically similar to the lexical items discussed so far.

- 41) a. D13 Mituku *-lika* bs *-lika* b,d  
 b. D28 Kijohoholo *-iki* s,d *-ikana* bs,d
- 42) a. L23 Kisonge *-jadila* s *-ikala* b } \*d<sub>i</sub> > ʒi  
 b. L31 Luba-kasai *-j<sup>v</sup>alala* s *-ikala* b,d } \*k<sub>1</sub> > θ/i<sub>-</sub>
- 43) a. F23 Shisumbwa *-ikala* s *-ekala* d  
 b. P31 Kimakua *-hala* b<sub>itu</sub> *-khala* b,d \*-ik- > h,  
 \*-nk- > kh  
 R31 Chiherero *-hara* become *-kara* dwell \*-ik- > h

- 44) a. G39 Sagala\* *-kala* s *-ikala* d  
 M42 Chibemba\* *-kala* s *-ikala* d  
 b. G61 Sango\* *-kala* s *-ekala* d  
 c. N41 Chinsenga\*\* *-kala* s *-nkala* d

\* Data are from Last 1885. Hoch 1974 lists *-ikala* for both 'sit' and 'dwell' in Chibemba.

\*\* Data for Chinsenga are from Madan 1905. Ranger 1928 lists *-nkala* for both.

We can see in each language that there is a semantic distinction between the two reflexes of the *\*-ka* root (41) or the *\*-kala* root (42-44). If, as in (41-43), the prefix vowel is the closest front vowel in the language, the meaning always involves a sense of 'sit' ('be situated' in Kimakua). On the other hand, when the vowel is the second closest front vowel, the meaning may be either or both 'be' and 'dwell' (eastern languages — zones F and G — have replaced *-ekala* 'be' with a reflex of *-ba* 'be').

In (44) we find an opposition between the prefixless form *-kala* and the prefixed form having a mid-close vowel. As with the examples in (41-43) the form with the mid-close vowel is associated with 'dwell', its counterpart with 'sit'.

What this suggests is that variation in prefix forms came to be perceived as the relevant differentiator for meaning, while the root distinction *-ka* vs *-kala* was lost or the two converged into one form. Thus, while we observed both difference in vowel and difference in meaning in Benga (37), other languages, such as those in (41-44), have retained only the vowel distinction. The majority of languages may, in fact, have completely neutralized any distinction so that we now find only one form extant, as suggested by the early data from Last (1885) and Madan (1905) where oppositions are noted in comparison to that found in Ranger (1928) and others for these languages.

Note, too, that some languages have the lower vowel for all meanings, while closely related neighboring languages have the high close vowel. Thus, we find that Kikamba (E55) has the initial vowel [i], but neighboring Gikuyu (E51) has [i]; Bondei (G24) has [e], but neighboring Kishambala (G23) has [i], as illustrated in (44).

- 45) *-i-kala* b,d,s *-i-kala* b,d,s
- 
- E55 Kikamba *-ikara* b,d,s E51 Gikuyu *-ikara* b,d,s  
 G24 Bondei *-ekala* b,d,s,r G23 Kishambala *-ikala* d,s,r

## 7.0 Conclusion

In this paper I have presented evidence that Proto-Bantu must originally have had two distinct roots in Proto-Bantu, *\*-ka-* and *\*-kal-*. The root *\*-ka-* most likely had the meaning “be (in a place)”; *\*-kala* had the sense “remain” and probably “dwell”. The sense “sit” would seem to be a later extension of the meaning for both roots.

The initial syllable *-(l)ĩ-*, which was considered in all previous reconstructions to be a part of the root, has been shown to have derived from prefixes that affect the valency of the root. Different forms have developed as a result of extensive variation in the form that the prefix could take. This variation may have been the result of different prefixes, or of some type of original vowel harmony that has been lost. Whatever the reason, originally motivated variation has led to a wide variety of forms throughout the Bantu world.

The variation also reflects what appears to be a widespread pervasive Bantu tendency to attach some type of affix to the stem of verbs of sitting and dwelling. When one affix becomes perceived as part of the root, another is added, so that we find in some languages traces of two, and even three, affixes. There appear to have been several of these affixes available, again contributing to the immense variation that is observed.

Finally, the large number of roots beginning with *\*-yĩ-* or *\*-jĩ-*, as noted by Meeussen, probably need to be reconsidered and reconstructed in light of this discussion of the role of prefixes in the formation of current words for “sit” and “dwell”.

## Notes

\* This paper is a revised version of a paper entitled “Rethinking Guthrie’s *\*-YIKAD-*”, originally presented at the 21st Conference on African Linguistics held at the University of Georgia in April 1990.

<sup>1</sup> The following abbreviations have been used throughout the paper:

b	be	e	exist
bs	be seated	r	remain, stay
d	dwell	s	sit.

Space limitations have precluded publication of all data sources used. Anyone wishing a complete listing can contact the author through the Department of Linguistics, Indiana University, Bloomington, IN 47405, USA.

<sup>2</sup> Coupez (1955: 69) states that the choice of *-lĩ-* or *-i-* is conditioned by the particular form of the verb it is affixed to, in particular, *-lĩ-* is used in those instances where a *[g]* would appear initially on radicals that usually have the form VC. However, he then gives the example *kwatĩtekuna* “on s’est mis en branle”, from the verb root *-tekun-* “lift up”, where *-lĩ-* appears but there is no *g*-initial root. Thus, while there might be preferred forms for certain verbs, the two prefixes would appear to be interchangeable at least in a few contexts.

<sup>3</sup> Given the locative use as ‘in’ in Ngbandi, it seems likely that *ka* might originally have been simply a locative particle, and not a verb. With general use in verbless expressions such as that illustrated for Ngbandi it may then have become verbal, permitting tense markers and other verbal markers.

## References

- Bourquin, Walther, 1923 (Reprinted 1969): *Neue Ur-Bantu-Wortstämme*. Nendeln, Liechtenstein: Kraus Reprint.
- Coupez, A., 1955: *Esquisse de la langue Holoholo*. Sciences de l’Homme No. 12. Tervuren: Musée Royal du Congo Belge.
- Dempwolff, O., 1916–17: Beiträge zur Kenntnis der Sprachen in Deutsch-Ostafrika; in: *Zeitschrift für Kolonialsprachen* 7: 134–60, 167–92.
- Guthrie, Malcolm, 1967–1971: *Comparative Bantu*. Farnborough, England: Gregg International publishers, Ltd.
- Hoch, E., 1974: *Bemba Pocket Dictionary*. Lusaka: National Educational Company of Zambia, Ltd.
- Homburger, L., 1913: *Etude sur la Phonétique Historique du Bantou*. Sciences historiques et philologiques 209. Paris: Ecole des Hautes Etudes.
- Ittmann, Johannes, 1939: *Grammatik des Duala*. Berlin: Dietrich Reimer.
- Johnston, Sir Harry, 1919: *A Comparative Study of the Bantu and Semi-Bantu Languages*. Oxford: Clarendon Press.

- Last, J. T., 1885: *Polyglotta Africana Orientalis*. London: Society for Promoting Christian Knowledge.
- Madan, A. C., 1905: *Senga Handbook*. Oxford: Clarendon Press.
- Meeussen, A. E., 1967: Bantu Grammatical Reconstructions; in: *Africana Linguistica III*. Tervueren: Musée Royal de l'Afrique Centrale. Pp. 79-121.
- , 1969 (Reprinted 1981): Bantu Lexical Reconstructions. *Archives d'Anthropologie* 27. Tervuren: Musée Royal de l'Afrique Centrale.
- , 1955: Les phonèmes du ganda et du bantou commun; in: *Africa* 25: 170-180.
- Meinhof, Carl, 1899 (Reprinted 1966): *Grundriß einer Lautlehre der Bantusprachen*. *Abhandlungen für die Kunde des Morgenlandes XI*. Leipzig: F. F. A. Brockhaus (Kraus Reprint Ltd., Nendeln, Liechtenstein).
- , 1910: *Grundriß einer Lautlehre der Bantusprachen*. Berlin: Dietrich Reimer.
- , 1932: *Introduction to the Phonology of the Bantu Languages*. Berlin: Dietrich Reimer Verlag.
- Polak, Louise, 1983: L'infixe réfléchi en bantou; in: *Africana Linguistica IX*. Tervuren: Musée Royal de l'Afrique Centrale. Pp. 271-304.
- Polak-Bynon, Louise, 1975: A Shi Grammar. *Annales — Sciences Humaines* No. 86. Tervuren: Musée Royal de l'Afrique Centrale.
- Ranger, A. Sydney B., 1928. *Chinsenga Handbook*. London: The Sheldon Press.
- Stewart, John, 1973: The lenis stops of the Potou Lagoon languages and their significance for pre-Bantu reconstruction; in: *Papers in Ghanaian Linguistics* [2] (Research Review, Supplement 4). Ed. by M. E. Kropp Dakubu. Legon: Institute of African Studies, University of Ghana. Pp. 1-49.
- Williamson, Kay, 1989: Niger-Congo Overview; in: *The Niger-Congo Languages*. Ed. by John Bendor-Samuel. Lanham, Maryland: University Press of America. Pp. 3-46.