

# A Short Note on Relative Constructions in Lega and Swahili

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## 1. Introduction

In this squib I would like to describe the position of the relative marker in the Bantu languages Lega (KiLega, Meeussen 1971, Kinyalolo 1991) and Swahili (KiSwahili, Ashton 1959, Barrett-Keach 1985) as a result of verb movement to various head positions in the left periphery of the sentence.

## 2. Morphological Preliminaries

Lega and Swahili, like other Bantu languages, feature a system of noun classification, where nouns are marked for gender by a class prefix. Some examples are given in (1):

(1)	Class	Number	Class Prefixes	Class Criterion	Examples
			<i>Lega Swahili</i>		<i>Lega, Swahili</i>
	1/2	sg (class 1)	<b>mu-</b> <b>m-</b>	[+animate]	<b>mwána, mtoto</b> 'child'
		pl (class 2)	<b>ba-</b> <b>wa-</b>		<b>bána, watoto</b> 'children'
	7/8	sg (class 7)	<b>ki-</b> <b>ki-</b>	[-animate	.., <b>kitu</b> 'thing'
		pl (class 8)	<b>bi-</b> <b>vi-</b>	objects]	.., <b>vitu</b> 'things'

In both Lega and Swahili, the subject is marked on the verb by one of a series of subject markers, the series of subject markers corresponding to the noun classes:

(2)	Class	Number	Subject Marker
			<i>Lega Swahili</i>
	1/2	sg (class 1)	<b>á-</b> <b>a-</b>
		pl (class 2)	<b>bá-</b> <b>wa-</b>
	7/8	sg (class 7)	<b>kí-</b> <b>ki-</b>
		pl (class 8)	<b>bí-</b> <b>vi-</b>

The subject markers are prefixed to the verb, which is structured as in (3):

### (3) *Lega/Swahili Verb Structure*

Neg—Subject Marker—Tense/Aspect Marker—Object Marker—Stem—Mood Marker

In (3), various additional morphemes are ignored. The Object Marker has a more limited distribution than the Subject Marker, and will mostly be ignored in what follows.

The sentences in (4) illustrate the noun class agreement between the verb and the subject in Lega and Swahili:

- (4) a. **mw-ána á-ku-kít-ág-á** búbo Lega  
 1 child SM<sub>1</sub> PROG do HAB IND 14 DEM  
 'A child (usually) does that.'
- b. **b-ána bá-ku-kít-ág-á** búbo  
 2 child SM<sub>2</sub> PROG do HAB IND 14 DEM  
 'Children (usually) do that.'
- (5) a. **ki-su ki-me-anguk-a** Swahili  
 7 knife SM<sub>7</sub> PERF fall-down IND  
 'The knife has fallen down.'
- b. **vi-su vi-me-anguk-a**  
 8 knife SM<sub>8</sub> PERF fall-down IND  
 'The knives have fallen down.'

### 3. Relative Pronouns

Relative pronouns in Lega and Swahili are also organized in a series, corresponding to the series of noun classes:

(6) *Lega and Swahili Relative Pronouns*

Class	Number	Relative Pronoun
		<i>Lega Swahili</i>
1/2	sg (class 1)	<b>u- -ye-</b>
	pl (class 2)	<b>-o- &lt; wa-o</b>
7/8	sg (class 7)	<b>kí- -cho- &lt; ki-o</b>
	pl (class 8)	<b>bí- -vyo- &lt; vi-o</b>

The relative pronoun in Swahili (with the exception of *-ye-*) is a combination of the subject marker and a suffix *-o*, referred to by Ashton (1959:19) as the '*-o* of reference'.

### 4. Positions of the Relative Pronouns in Lega and Swahili

The relative pronoun appears in various positions. In Lega, the relative pronoun is prefixed to the verb complex:

(7) *Position of the Relative Pronoun in Lega*

- a. **mw-ána u-ku** kít-ág-á búbo  
 1 child REL<sub>1</sub> PROG do HAB IND 14 DEM  
 'a child who (usually) does that'
- b. **mw-ána u-ta-ku** kít-ág-á búbo  
 1 child REL<sub>1</sub> NEG PROG do HAB IND 14 DEM  
 'a child who (usually) doesn't do that'
- c. **mw-ána u-mú-ku** bák-íl-á nyumbá  
 1 child REL<sub>1</sub> SM<sub>2,you</sub> PROG erect APPL IND 9 house  
 'the child who you are building a house for'

In (7b), the relative pronoun *u-* precedes the negative marker *ta*. In (7c), *u-* precedes the second person plural subject marker *mú* 'you' (belonging to class 2). The relative pronoun and the subject marker can only cooccur when the relativized noun phrase is not the subject, and when the subject is empty (*pro*).

In Swahili, the relative pronoun is always a suffix. It can be suffixed to a) the complementizer *amba*, b) the tense/aspect marker (where *amba* is absent), and c) the verb complex as a whole (where both *amba* and the tense/aspect marker are absent):

(8) *Positions of the Relative Pronoun in Swahili*

- a. **ki**-tabu **amba-cho** **wa**-li **ki**-som-a  
7 book COMP REL<sub>7</sub> SM<sub>2</sub> PAST OM<sub>7</sub> read IND  
'the book which they read'
- b. **ki**-tabu **wa**-li-**cho** **ki**-som-a  
7 book SM<sub>2</sub> PAST REL<sub>7</sub> OM<sub>7</sub> read IND  
'the book which they read'
- c. **vi**-tabu **wa**-**vi**-som-a-**vyo**  
8 book SM<sub>2</sub> OM<sub>8</sub> read IND REL<sub>7</sub>  
'books which they read'

The subject marker is never left out in relative constructions in Swahili (unlike in Lega, where the subject marker is absent when the subject is overtly present). Note that the relative marker appears to be an infix in the tensed relative construction (8b). We choose to describe it as a suffix to the tense/aspect marker, for reasons discussed in Zwart (1997).

The comparison of Lega and Swahili raises two questions. First, how to describe the distribution of the relative pronoun internal to Swahili, and second, how to describe the variation in the position of the relative pronoun across Swahili and Lega.

## 5. Verb Movement

Within Swahili, we notice a difference in verb placement between the *amba*-relative and the tensed relative (Vitale 1981:98f):

- (9) a. **vi**-tu **a**-li-**vyo** **vi**-fany-a Juma  
8 thing SM<sub>1</sub> PAST REL<sub>8</sub> OM<sub>8</sub> do IND Juma  
'the things Juma does'
- b. \* **vi**-tu Juma **a**-li-**vyo** **vi**-fany-a  
8 thing Juma SM<sub>1</sub> PAST REL<sub>8</sub> OM<sub>8</sub> do IND
- c. **vi**-tu **amba-vyo** Juma **a**-li **vi**-fany-a  
8 thing COMP REL<sub>8</sub> Juma SM<sub>1</sub> PAST SM<sub>8</sub> do IND  
'the things Juma does'

These facts suggest that the verb *alivyovifanya* in (9a) moves to a position otherwise occupied by *amba*. The same is true of the tenseless relative:

- (10) a. **wa**-toto **wa**-**wa**-pend-a-**o** **wa**-zee wao  
2 child SM<sub>2</sub> OM<sub>2</sub> love IND REL<sub>2</sub> 2 parent 2-POSS  
'children who their parents love'
- b. \* **wa**-toto **wa**-zee wao **wa**-**wa**-pend-a-**o**  
2 child 2 parent 2-POSS SM<sub>2</sub> OM<sub>2</sub> love IND REL<sub>2</sub>

Lega shows the same subject-verb inversion (Kinyalolo 1991):

- (11) a. **bi-tondo** **bí-ku-ténd-a** úzo **mw-ána**  
 8 word SM<sub>8</sub> PROG say IND 1 DEM 1 child  
 'the words that that child is saying'
- b. \* **bi-tondo** úzo **mw-ána** **bí-ku-ténd-a**  
 8 word 1 DEM 1 child SM<sub>8</sub> PROG say IND

Assuming *amba* to be a complementizer, I propose that the verb moves to the complementizer position, C, in *amba*-less relative constructions in Swahili and (trivially) Lega.

## 6. Swahili vs. Lega

It is tempting to describe the difference between Swahili and Lega (with respect to the position of the relative pronoun) as the effect of various amounts of verb movement as well. This would imply that the relative pronoun occupies a fixed position, to the right of C (the position of *amba* in Swahili) and to the left of the subject position (which I assume to be fixed as well), with potential landing sites for the verb both to the right and to the left of the relative pronoun:

### (12) *The Position of the Relative Pronoun*

<i>position</i>	1	2	3	4	5	6
	<i>amba</i>	V <sub>1</sub>	REL	V <sub>2</sub>	SUBJECT	V <sub>3</sub>

Relative clauses in Lega (11a) can now be described as involving verb movement to position 4, whereas tenseless relative clauses in Swahili (10a) can be described as involving verb movement to position 2. Position 6 is occupied by the verb in relative clauses with *amba* in Swahili (9c). Finally, tensed relative clauses in Swahili (9a) can be described as involving movement of the verb to position 4, with subsequent movement of the tense/aspect marker to position 2:

### (13) *Relative Clauses in Lega and Swahili*

<i>position</i>	1	2	3	4	5	6	
a. [11a]			<b>bí</b>	kutenda	úzo	mwána	Lega
b. [10a]		wawapenda	<b>o</b>		wazee	wao	Swahili
c. [9c]	<i>amba</i>		<b>vyo</b>		Juma	alivifanya	Swahili
d. [9a]		ali	<b>vyo</b>	vifanya	Juma		Swahili

## 7. The Structure of CP

The positions 1-6 in section 6 can be identified as follows.

There is no reason to maintain that 1 and 2 are separate positions. I will therefore assume that these positions coincide. Having identified the position of *amba* as C, I will consider position 1/2 to be C, the head of CP.

Relative clauses are generally analyzed as CP in generative grammar, with some variation as to what kind of element occupies the specifier position of CP. I will follow Kayne (1994) here in assuming that what occupies the specifier position of CP is actually the head noun of the relative clause (*vitu* in (9), *watoto* in (10), and *bitondo* in (11)).

In Kayne's analysis, the head noun does not directly occupy the specifier position of CP in relative clauses, but a specifier within a DP sitting in the specifier position of CP. This DP, referred to here as DP-rel, is headed by the relative pronoun. This is illustrated in (14):

(14) the [<sub>CP</sub> [<sub>DP-rel</sub> man<sub>i</sub> [<sub>D</sub> who t<sub>i</sub> ]]<sub>j</sub> C [<sub>IP</sub> Mary [<sub>VP</sub> kissed t<sub>j</sub> ]]]

This analysis has been refined in Bianchi (1995) and Zwart (to appear), who propose that the head noun *man* in (14) moves out of the DP-rel to the specifier of a higher CP-projection:

(15) the [<sub>CP</sub> man<sub>i</sub> C [<sub>CP</sub> [<sub>DP-rel</sub> t<sub>i</sub> [<sub>D</sub> who t<sub>i</sub> ]]<sub>j</sub> C [<sub>IP</sub> Mary [<sub>VP</sub> kissed t<sub>j</sub> ]]]]

This proposal ties in with a number of recent analysis of the left periphery of the clause, to the extent that CP can be split up into two or three different projections (Müller and Sternefeld 1993, Hoekstra & Zwart 1994).

Applying the analysis of the CP in (15) to the schema in (12), we can identify the 1/2 position as the higher C-position, the 3-position as the specifier position of the lower C, and the 4-position as the lower C-position.

## 8. The Status of the Relative Pronoun

In this analysis the relative pronoun is not an affix (as commonly assumed), but a free morpheme.

There is evidence from other Bantu languages like Tswana (Cole 1955:180) and Southern Sotho (Guma 1971:114) that this may be correct. These languages do not show subject-verb inversion in object relatives, and the relative pronoun appears to the left of the subject:<sup>1</sup>

- (16) **mo-nna yô ba-tho ba-mo-nyatsa-ng** Tswana  
 1 man REL<sub>1</sub> 2 person SM<sub>2</sub> OM<sub>1</sub> despise NG  
 'the man who the people despise'
- (17) **li-eta tseo Thabo a-li-roetse-ng** Southern Sotho  
 8 shoe REL<sub>8</sub> Thabo SM<sub>1</sub> OM<sub>8</sub> wear NG  
 'the shoes that Thabo is wearing'

If these facts are relevant, the adjacency of the relative marker and the verb in Lega and Swahili must be a result of verb movement.

This result has a particular bearing on the Swahili tensed relative (9a). Here the relative marker looks like an infix, but if we analyze it as such, we lose the generalization that the position of the relative marker is the result of verb movement. The analysis in (13d), where the Swahili verb is a complex of two verbs, each moving to a different C-position, overcomes that problem.

A cursory check indicates that no Bantu language has relative clauses without subject-verb inversion and with the relative marker affixed to the verb complex:

<sup>1</sup> The suffix *-ng* "may originally have been a participial tense formative" (Cole 1955:285).

(18) *Not found in Bantu?*

Head Noun—Subject—Relative Marker—Subject Marker—Tense—Object Marker—Verb  
Head Noun—Subject—Subject Marker—Tense—Object Marker—Verb—Relative Marker  
Head Noun—Subject—Subject Marker—Tense—Relative Marker—Object Marker—Verb

This state of affairs (if substantiated by further data) is explained if the relative marker has the status of English *which* in the analysis of Kayne (1994) and Bianchi (1995), moving to the CP-domain together with the head noun. The traditional analysis, in which the relative marker is an affix, has no explanation for the absence of the word orders in (18).

## References

- Ashton, E.O. 1959. *Swahili Grammar (including Intonation)*. Longmans, London.
- Barrett-Keach, C. 1985. *The Syntax and Interpretation of the Relative Clause Construction in Swahili*. Garland, New York.
- Bianchi, V. 1995. Consequences of Antisymmetry for the Analysis of Headed Relative Clauses. Dissertation, Pisa.
- Cole, D.T. 1955. *An Introduction to Tswana Grammar*. Longmans, London.
- Guma, S.M. 1971. *An Outline Structure of Southern Sotho*. Shuter & Shooter, Pietermaritzburg.
- Hoekstra, E. and J.W. Zwart. 1994. De structuur van de CP. Functionele projecties voor topics en vraagwoorden in het Nederlands. *Spektator* 23, 191-212.
- Kayne, R.S. 1994. *The Antisymmetry of Syntax*. MIT Press, Cambridge.
- Kinyalolo, K.K.W. 1991. Syntactic Dependencies and the Spec-Head Agreement Hypothesis in KiLega. Dissertation, UCLA.
- Meeussen, A.E. 1971. *Elements de grammaire lega*. Musée Royal de l'Afrique Centrale, Tervuren.
- Müller, G. and W. Sternefeld. 1993. Improper Movement and Unambiguous Binding. *Linguistic Inquiry* 24, 461-507.
- Vitale, A.J. 1981. *Swahili Syntax*. Foris, Dordrecht.
- Zwart, C.J.W. 1997. Rethinking Subject Agreement in Swahili. Paper presented at NELS 28, Toronto, October 24.
- Zwart, C.J.W. To appear. A Head-Raising Analysis of Relative Clauses in Dutch. In Proceedings of the Workshop on Relative Clauses, held in Berlin, 1996.