

An Examination of Anaphoric Relations in Selected African Languages

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1. Introduction

Objectives

- a) Determine whether the forms used to mark anaphoric relations in the selected languages are **affixes** and/or **free pronominal forms**;
- b) Indicate whether or not the anaphoric elements select **sentential** and/or **extra-sentential antecedents**;
- c) Describe the **morpho-syntactic/discourse factors** that condition the distributional patterns of the anaphoric relations;
- d) Describe the varied **patterns of co-occurrences** between the anaphoric elements and other elements such as causatives and applicatives.

A number of studies on Indo-European languages (Langacker (1966), Lasnik (1976), Chomsky (1981), Safir (2004)) and on Asian languages (Koster & Reuland (1991), Cole, Hermon, & Huang (2001)) have yielded significant generalizations that form the basis upon which anaphora theories are formulated. Much of the literature in the 1980s and 1990s was centred around two opposing generalizations:

✓ *There are certain lexical items that occur only with antecedents which c- command them and which are located in the same local domain (clause) as the anaphoric elements**: (Mainly supported by data from Indo-European languages).

- (1) a. *The man killed himself.*
b. *The women saw each other.*
c. **Himself killed the man.*

✓ *The anaphoric elements are able to take antecedents that are not in the local domain*: (Mainly supported by data from Asian languages)

* I use italics as a convention to indicate coreference (in a general sense) in the sentences given.

- (2) a. *Zhangsan zhidao* [Lisi renwei [Wangwu zui xihuan ziji]]. [Chinese]
 Zhangsan know Lisi think Wangwu most like self
 Zhangsani knows [that Lisi thinks [that Wangwu likes him/himself most]].

b. **Peter* thinks that Mary likes *himself*.

There seemed to be agreement on the generalization that:

- ✓ *The most common anaphoric elements are reflexives and reciprocals.*

After the 1990s, there was need to extend the data base to understudied languages, and African language soon became the focus of this renewed attention (Afranaph project, Sikuku (1998, and in preparation), Adesola (2005)). New details have emerged that either complement the generalizations hitherto made or motivate new analyses. Perhaps the most significant of them include:

- ✓ *Local anaphoric reflexive and reciprocal relations are marked by invariant affixes hosted by the verb stem:*

- (3) a. *Wekesa a-a-i-siim-a* [LuBukusu]
 Wekesa SM-Tns-RFM-like-fv
 Wekesa likes himself

- b. *Azimai wo-na-an-a* [CiNsenga]
 Women SM-see-RCM-fv
 The women saw each other

- ✓ *Both reflexive and reciprocal relations are indicated by a complex lexical form made up of two or more forms, one meaning 'body', 'body part' or 'self', and the other, an agreeing pro-form:*

- (4) a. *Olu ri ara re* [Yoruba]
 Olu see body his
 Olu saw himself

- b. *Okon a-ma idem (mo)* [Ibibio]
 Okon SM-love body his
 Okon loves himself

- c. *John ras-u-n aj-t-o nabar* [Amharic]
 John self-3sg-acc saw-ref-3msg be
 John saw himself

✓ *The use of special logophoric pronouns to indicate long distance relations either ambiguously or unambiguously:*

(5) a. *Olu so pe Maria feran oun* [Yoruba]
Olu say that Mary like him
Olu said that Mary likes him (unambiguous)

b. *Olu so pe Maria feran re* [Yoruba]
Olu say that Mary like him
Olu said that Mary likes him (ambiguous)

c. *Sikuku a-a-bol-el-a Sitawa a-li omweene omumiliyu* [LuBukusu]
Sikuku SM-Tns-tell-Appl-fv Sitawa Agr-that Agr-own CL1clean
Sikuku told Sitawa that he is clean (ambiguous)

In addition, there are complex interactions when the anaphoric elements co-occur with each other and with other grammatical elements such as applicatives and causatives leading to both widespread and subtle differences that motivate variations in form and interpretations. This paper is an attempt to give a formal description of such complexities with reference to a cross-section of African languages that include, but are not limited to; LuBukusu, Yoruba, Amharic, Ibibio, Ikalanga, CiNsenga, and Kirundi.

Significance

- Use Afranaph database to make a formal comparison of African languages in terms of their anaphoric patterning.
- Enhance the Afranaph project by providing a form of feedback, that may motivate subsequent follow-up to refine specific language data.

The data for LuBukusu is mainly derived from my own intuition as a native speaker of the language, while that of the other languages stems from the African anaphora data base at www.africananaphora.rutgers.edu.

ROADMAP

2. Distinguishing bound anaphors, pronouns, bound variables and Agreement

3. Affixal markers- RFM and RCM

4. Non Affixal markers- Self, body part and Logophoric pro-forms

5. Conclusions

2. Distinguishing bound anaphors, pronouns, bound variables and agreement

Whereas a detailed analysis of the anaphoric markers in world languages is desirable, it is perhaps important to distinguish the different types of such markers, because each type manifests unique structural patterning that make comparison within and across languages more formalized. In the literature, several diagnostics are proposed to make such distinctions clear: Safir (2004), Cole et al (2001), Koster & Reuland (1991), Corbett (2006). The most significant include:

- Bound anaphors enter into binding relations with c-commanding antecedents;
- Pronouns allow extra sentential antecedents;
- Bound anaphors favour a sloppy reading with VP ellipsis while pronouns favour both readings.
- Long distance bound anaphors are conditioned by discourse/ logophoric factors such as point of view, together with structural conditions such as monomorphemicity.
- Pronouns mostly affect a verb's argument structure, while agreement forms are grammatical. (Siewierska (undated)).
- Bound variables relate to semantic scope of interpretation.

For purposes of purely limiting the scope of this paper, I focus on describing bound anaphors and independent pronominal forms, that are either simply pronouns or bound anaphors.

3. Affixal Markers (AM)

I describe the AM in relation to the following properties:

- Morphological form;
- Position in a syntactic structure
- Type of (anaphoric) reading
- Antecedency

- Distributional constraints that may be controlled by type of verb, and role of a particular element.

3.1 RFM

- (6) *Yohaani a-a-i-bon-ye* [Kirundi]
 Yohaani 3sg-Tns-RFM-see-fv
 ‘John saw himself’
- (7) *John ø-e-zi-on-a* [CiNsenga]
 John 3sg-Tns-RFM-see-fv
 ‘John saw himself’
- (8) *Ami n-dibe* [Ibibio]
 I 1sg-hide (RFM)
 ‘I hide myself’

3.2 RCM

- (9) *Aba-gore ba-a-bon-an-ye* [Kirundi]
 c2-woman 3pl-Tns-see-RCM-fv
 ‘Women saw each other’
- (10) *Ba-kadzi ba-no-bon-an-a* [Ikalanga]
 c2 –woman 3pl-Tns-see-RCM-fv
 ‘Women saw each other’
- (11) *Ibaan odo e-du-kit-te* [Ibibio]
 Women the 3sg-RCM-see-RCM
 ‘Women see each other’

Table 1

Language	AM	MORPHOLOGY	POSITION	READING	ANTECEDENT	DISTRIBUTION
LuBukusu	<i>-i-</i>	Phonologically conditioned allomorph <i>-(y)e</i>	Pre-verbal	Reflexive	-Local subject	In complementary distribution with OM in single argument VP -Nominal phrases Complementary distribution with OM in single argument VP
	<i>-an-</i>	Phonologically conditioned <i>-chan</i>	Post verbal	Reciprocal	-Local subject	
CiNsenga	<i>-zi-</i>	Invariant	Preverbal	Reflexive	-Local subject	Complementary distribution with OM in single argument VP
	<i>-an-</i>	Invariant	Postverbal	Reciprocal	-Local subject	Replaces OM
Ikalanga	<i>-zwi-</i> RFM	Invariant	Preverbal	Reflexive	-Local subject	Complementary distribution with OM in single argument VP
	<i>-an-</i> RCM	Invariant	Postverbal	Reciprocal	-Local subject	Replaces OM
Yoruba	-	-	-	-	-	-
Ibibio	<i>CV</i>	?	Post verbal	Reflexive	Local subject	Less productive
	<i>-Du-?-</i>	?	Pre/post verbal	Reciprocal	Local subject	
Amharic	-	-	-			

The reflexive and reciprocal affixes are largely invariant in form in the Bantu languages (LuBukusu, CiNsenga, Ikalanga, and Kirundi). They are unambiguously used to indicate the reflexive and reciprocal readings. The RCM is constantly *-an*, (LuBukusu has cases of reduplication to *-chan* in monosyllabic stems). The RFM varies slightly from language to language, but there is an obvious closeness. *-i-* seems to be the basic form, occurring with *z/j* in some languages. (LuBukusu has a phonologically conditioned *-(y)e*-allomorph). Ibibio's case is slightly different:

- The RFM appears to take the form of vowel suffixation, when a verb ends in a consonant (with the possibility of umlaut) or zero realization when it ends in a vowel. This is quite unproductive as it is confined only to a few verbs (**the available data is not adequate for a precise generalization**).

- There is double reciprocal marking by both prefixation and suffixation. The RCM prefix is constantly *-du-* while the suffix varies, (with a CV structure) most likely, due to phonological factors.

Note also that in LuBukusu, the RFM in nominals:

- **triggers a form of reduplication**

- (12) Khu- khw-i-inyusy-a khu-eewe khu-li khu-a kalaa
Prprfx-prfx-RFM-raise-fv Agr-his Agr-is Agr-of slow
His (way of) raising himself is slow

- **RCM can combine with another RCM**

- (13) Ba-baana ba-a-p-an-il-an-a kumukaati
CL2-child SM-Tns-fight-RCM-Appl-RCM-fv CL3-bread
Children fought for bread for each other

- **RCM can co-occur with RFM**

- (14) Ba-khasi ba-e-yeet-an-a
CL2-woman SM-RFM-helped-RCM-fv
(The) women helped themselves/each other

4. Non-Affixal Markers (NAM)

All the languages investigated here have free pronominal forms used for the reflexive and reciprocal readings. Most of these have a fixed form usually attached to an agreement affix that carries the features of a potential antecedent. Three categories of NAM are identified:

- ‘Self’- forms – The fixed form is translated as ‘self’ (*-eene* in LuBukusu, *ras* in Amharic), ‘alone’ (*-ega* in Ikalanga), or ‘owner’ (*-eene* in LuBukusu, perhaps *mwinicozi* in CiNsenga also falls here).
- Body part anaphoric elements- made up of a word referring to body or body part with an agreeing pronoun (usually genitive)-(*idem*+ Agr in Ibibio).
- Logophoric pronoun- Unambiguously used for anaphoric relations even across clausal boundaries- (*oun* in Yoruba).

Examples

- (12) *Sitawa a-i-siim-a omw-eene*
Sitawa 3sg-RFM-like-fv Agr-self/own
‘Sitawa likes herself’

[LuBukusu]

(13) *Paul ø-e-samb-a y-eka*
 Paul 3sg-Tns-wash-fv 3sg-alone
 ‘Paul washed himself’

[Kirundi]

(14) *Okon a-ma idem omo*
 Okon 3sg-love body his
 ‘Okom loves himself’

[Ibibio]

(15) *Olu so pe Maria feran oun*
 Olu say that Maria like him
 ‘Olu said that Mary likes him’

[Yoruba]

The table below presents a general outlook of the NAM in the study languages.

Table 2

Language	NAM	Antecedent	Remarks
LuBukusu	<i>Agr-eene</i> – Reflexive	Clausal/extra sentential	Clausal antecedent in obliques, but extra-sentential elsewhere with focus
	<i>Agr-eene ne/khu</i> <i>Agr-eene</i> – Reciprocal	Extra-sentential	Focus phrase
CiNsenga	<i>Agr-eka</i> - Reflexive	Clausal	Focus phrase
	<i>Mwinicozi</i> - Reflexive	Clausal	Focus phrase/ co-occurs with pronouns. Used with reflexive verbs to convey negative meaning
Ikalanga	<i>Ega</i>	Clausal	Focus phrase?
Yoruba	<i>Ara-Agr</i> - Reflexive/Reciprocal	Clausal/Nominal	Reciprocal with plural agreement/Focus phrase in nominals
	<i>0</i> - 2 nd person accusative pronoun as Reflexive	Clausal	Non productively used in Yes/No questions
	<i>Oun</i> - 3 rd person pronoun	Long-distance	Unambiguously refers to the subject of the matrix clause
Ibibio	<i>Idem-Agr</i> - Genitive pronoun – Reflexive/Reciprocal	Clausal/Nominal	Used for both Reflexive and Reciprocal readings/Focus phrase in nominals
	<i>Omo/anye</i> - Pronoun	Free/Logophoric	Used in long-distance environments
Amharic	<i>Ras-Agr</i> - Reflexive	Clausal	Also focus phrase
	<i>Ras-by-Ras</i> -	Clausal	Also focus phrase

	Reciprocal <i>And-u ja-and-u- One to one</i>	Clausal	Used in obliques
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5. Conclusion

A systematic comparison of anaphoric relations in several languages, not only helps to enrich the database but also motivates the need for further investigations to fill in the gap especially in area that require much more attention.

Selected References: Adesola (2005), Pronouns and Null operators- A-bar dependencies and relations in Yoruba, PhD Rutgers University; Chomsky (1981), *Lectures on Government and Binding*; Cole, Hermon, and Huang (2001), *Long distance Reflexives. Syntax and Semantics Vol 33*; Langancker (1966) On pronominalization and the chain command. In: Reibel& Schane (eds); Lasnik (1976) Remarks on coreference. *Linguistic Analysis*; Koster & Reuland (1991) *Longdistance Anaphora*; Safir (2004) *The Syntax of Anaphora*; Sikuku (1998) The morphosyntactic structure of LuBukusu anaphoric relations: A Government and Binding approach, M.Phil Moi University; Sikuku in preparation, Syntactic patterns of LuBukusu anaphoric relations: Representation and Interpretation in a Minimalist perspective. PhD University of Nairobi.