

An Examination of Anaphoric Relations in Selected African Languages

Justine Sikuku, Moi University

One of the primary concerns of the syntax of anaphora is the characterization of referentially dependent expressions in natural language in terms of form and morpho-syntactic distribution: Are they independent lexical forms or affixes? Do they select a sentential or extra-sentential antecedent? What are the morpho-syntactic/discourse factors that underlie their distributional patterns? 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:

(1) *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**:

a) *The man killed himself.*

b) *The women saw each other.*

c) **Himself killed the man*

(2) *The anaphoric elements are unable to take c- commanding antecedents within the local domain:*

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.*

(3) *The most common anaphoric elements are reflexives and reciprocals.*

As studies shift to understudied languages, and especially African languages (Afranaph project, Sikuku (1998, and in preparation), Adesola (2005)), new details emerge that either complement the generalizations hitherto made or motivate new analyses. Perhaps the most significant of them include:

(4) *Local anaphoric reflexive and reciprocal relations are marked by invariant affixes hosted by the verb stem:*

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

- 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
- (5) *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:*
- 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
- (6) *The use of special logophoric pronouns to indicate long distance relations either ambiguously or unambiguously:*
- 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)

These generalizations are just but a tip of the iceberg: Underneath, 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, Kinande, Gunbe, and Kirundi. The description is based on four key objectives:

- a) To determine whether the forms used to mark anaphoric relations are affixes and/or free pronominal forms;
- b) To indicate whether or not the anaphoric elements select sentential and/or extra-sentential antecedents;
- c) To describe the morpho-syntactic/discourse factors that motivate the distributional patterns of the anaphoric relations;
- d) To describe the varied patterns of co-occurrences between the anaphoric elements and other elements such as causatives and applicatives.

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. Selected findings are summarized in the tables below:

Table 1. Affixal Anaphoric Elements

Language	Affix	Antecedent	Remarks
LuBukusu	<i>-i-</i> RFM	Clausal/Nominal	Prefix with <i>-(y)e</i> variant in phonologically conditioned environments.
	<i>-an-</i> RCM	Clausal/Nominal	Invariant suffix (occurs as <i>-chana-</i> with mono-syllabic stems)
CiNsenga	<i>-zi-</i> RFM	Clausal/Nominal	Invariant prefix (optional with verbs like 'wash')
	<i>-an-</i> RCM	Clausal	Invariant suffix
Ikalanga	<i>-zwi-</i> RFM	Clausal/Nominal	Invariant prefix
	<i>-an-</i> RCM	Clausal	Invariant suffix
Yoruba	-	-	-
Ibibio	<i>-na</i> RFM	Clausal	Less productive
	<i>-Du-te-</i> RCM	Clausal	Less productive only with selected verbs
Amharic	-	-	-

Notice the closeness in form for both the reflexive and reciprocal affixes in the Bantu languages (LuBukusu, CiNsenga, and Ikalanga). These affixes are also unambiguously used to indicate the reflexive and reciprocal readings in these languages. They all select a clausemate antecedent, and are largely invariant in form. In addition, the RFM (and the RCM in LuBukusu) can occur in nominal expressions. It is also noticeable that except for Ibibio, Yoruba and Amharic do not have anaphoric affixes. Even the Ibibio ones are quite unproductive.

Table 2. Non-affixal Anaphoric Elements

Language	Pronoun	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> Reciprocal	Clausal	Also focus phrase
	<i>And-u ja-and-u-</i> One to one	Clausal	Used in obliques

In Table 2, all the languages represented 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. These forms also double as focus constructions mainly when they occur in noun phrases. In affixal languages they enhance either the reciprocal or reflexive readings when they co-occur with the affixes. Other co-occurrence possibilities are largely noticeable in the Bantu languages which possess argument increasing affixes such as causatives and applicatives. In such cases, each of the anaphoric elements will represent an argument. Perhaps this explains why these affixes are incompatible with statives and passives, and why languages with limited affixes have less co-occurrence possibilities.

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.