

THE PRESENTATION AND ANALYSIS OF BINDING CONDITIONS IN IBIBIO

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Abstract

*The Government and Binding theory (GB) is seen as one of the linguistic universal phenomena, however, parametric variations abound across languages. This therefore calls for critical investigation of languages to access the universality of the principle of the Binding theory (BT). This work discusses the various binding conditions which are found in overt NPs in Ibibio, a Delta-cross language of the Cross-river group of languages in Nigeria. Data used in carrying out this research were collected from both primary and secondary sources. Three competent native speakers of the language were consulted and interviewed. Secondary sources were drawn from relevant texts on Ibibio; books, journals, seminar materials, conference materials and online sources. The binding conditions in Ibibio which were treated in this work were those of overt NPs. The reflexives in Ibibio are formed by adding the morpheme *idém* to the personal pronouns. There is only one reciprocal in Ibibio *kìèrèkèn* which is a morphophonemically realized from *'kièt'* and *'ékèn'* which literally translates to 'one another'. In Ibibio, the binding conditions of anaphors in the language aligns with the universal binding Principle A which states that an anaphor must be antecedent bound in a minimal domain. Personal pronouns in Ibibio do not always conform to the Principle B of BT. R-expressions in Ibibio conform to binding principles C which states that the R-expressions are free both in their local and non-local domain.*

1.0 Introduction

The Ibibio language belongs to the Niger-Congo family of the Delta-Cross subfamily, which constitutes the Lower-Cross family within the enlarged Cross-River group of languages (Greenberg 1963, Faraclas 1989). Ibibio, together with Efik, Annang, Oro, Ekid, Usakedet, etc. belongs to this Lower-Cross family. The languages are mutually intelligible with Ibibio although the degree is unidirectional in some cases (e.g. Oro and Ekid). The Ibibio people are found in the mainland part of the Cross River Basin in south-eastern Nigeria. They are the dominant ethnic nationality in the present day Akwa Ibom State. The population of Ibibio is 4 million (based on census demographic data). The Annang and Oro people are their closest neighbours within the state. They share boundaries with the Igbo in the Northwest hinterland and with the Efik Southeast ward. They share a south-west coastal boundary with the Okpobo/Ijaw in Rivers State. They are bounded in the northeast by the cluster of Ejagham nation up to Southern Cameroon (Udo 1983).

Binding phenomena exist in all languages, although the behavior of binding can vary in interesting and nuanced ways across languages, even across languages that are closely related. Binding Theory accounts for the distribution of reflexives, pronouns, and full noun phrases. The focus of this paper is on implementing all binding conditions in the classical formulation by Chomsky (1981) in the grammar of Ibibio.

2.0 Literature Review

This section discusses the concepts used in this work.

2.1 Binding Theory

Binding theory is concerned with accounting for the referential dependency existing between nominal categories. It is one of the subsystems of principles discussed under the Government and Binding theory proposed by Noam Chomsky in the early 1980s. Bussman (1996) defines binding theory as a sub theory of transformational grammar which governs the relationship between anaphors, pronouns, referential expressions and traces and their potential antecedents. Buring (2005) states that binding theory seeks to explain how different kinds of nominal expressions such as names, noun phrases, and pronouns have anaphoric relations among one another, and how they come to have reference to things in the world. The theory classifies nominal according to two features, [\pm anaphor] and [\pm pronominal]

Binding theory restricts the distribution of NPs (or DPs) that have the same referent. Chomsky (1981) distinguishes these three types of NP. They are:

1. Anaphors (reflexives and reciprocals) e.g. himself, herself, itself, themselves, myself, yourself, ourselves, yourselves, each other and one another, whose references are bound by a preceding NP in the same clause.

Example:

- a. Akpan bought himself a book. (Where himself refer to Akpan.)
 - b. Edet and Okon are waving to each other. (Where each other refer to Edet and Okon)
2. Non-reflexive pronouns or Personal pronouns, he, she, it, him, her, I, us, you, me, his, your, my, our which can be interpreted anaphorically (proximately) or deictically (obviately)
- Eg. Caroline still thinks she was right.
'She' can refer either to Caroline or another person not mentioned in the sentence.

3. R-expressions: They are NPs which do not fall into (1) or (2), E.g. Proper nouns

Eg. Eno-obong is a girl. (Eno-obong which is a proper noun refers to the girl).

Bussman (1996) states that Binding restrictions operate as a filter, which restricts the formally possible coreference relations between NPs as well as between NPs and their traces, so that only well-formed structures meet the binding constraints. Ndimele (1992) adds that the main ideas behind BT are to:

- a. To characterize the anaphoric or interpretative relations between different NP's in a sentence.
- b. Determine the distribution of reflexives, reciprocals, pronominals, overt NPs and Empty

Categories (EC's). He therefore defined Binding as follows:

α binds β if

- a. α c-commands β
- b. α and β are co-indexed

Although the Government and Binding theory is seen as one of the linguistic universal phenomena, parametric variations abound across languages hence the need for language specific attention to access the universality of the principle of the Binding theory which states thus:

Principle A: An anaphor must be antecedent bound in a minimal domain.

Principle B: A pronoun must be free in a minimal domain.

Principle C: An R-expression must be free anywhere

According to binding theory, anaphors are bound within a specific syntactic domain, their governing category; that is, they have an antecedent which c-commands them within their governing category. Personal pronouns are not bound within their governing categories; they can be bound only by elements outside of the governing category. All other NPs are always free.

The binding principles also apply to the distribution of empty categories both PRO and various types of traces such as NP-trace, Pro, PRO, Wh-trace. However, this work is restricted to only overt NPs.

2.2 C-command and Co-indexing C-command and co-indexing are necessary conditions under the binding theory. To C-command means to share the same maximal projection. That means the same Phrase, clause or sentence. Several definitions of c-command have been put forward in the government and binding literature.

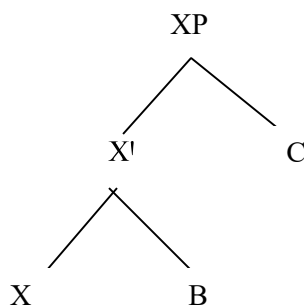
Reinhart (1983) defines c-command as:

Node A co-commands node B iff every branching node most immediately dominating A Also dominates B.

Sells (1985) also defines c-command as:

Node A c-commands node B iff every maximal projection dominating A also dominates B.

This can be illustrated thus



(adapted from Ndimele 1992:79)

From the diagram, X c-commands B but not C and C C-commands both B and C.

To co-index means to share the same referent. Thus $i=i$. this means to share the same grammatical features. These grammatical features may be agreement in person, number and case.

3.0 Methodology

The design of the study is descriptive and analytical. Data were collected from primary and secondary sources. Three competent native speakers of the language were consulted and

interviewed. Secondary sources were drawn from relevant text on Ibibio books, journals, seminar materials, conference materials and materials from the internet.

4.0 Binding Conditions in Ibibio

4.1 Anaphors

An anaphor refers to any NP or reflexive that receives definitions from its antecedent.

Anaphors are a class of pronouns distinguished in terms of their syntactic domain in which they can or must connect to their antecedents. An antecedent is the entity that gives referents to the noun phrase. The antecedent of an anaphor must be within their local clause. E.g.

- a. *That is rains bothers himself/herself (No antecedent)
- b. *Carla thinks that I hate herself (Non-local antecedent)
- c. Peter; watches himself (local antecedent)

Ibibio anaphors fall into two groups just like the English anaphors. They are reflexives and reciprocals.

4.2 Reflexives

Crystal (1997) defines reflexives as a term used to refer to a construction where the subject and the object relate to the same entity. E.g. He hurt himself. In Ibibio, reflexives are morphologically marked with a possessive pronoun and the morpheme *idém* which translates literally as ‘body’. The morpheme *idém* comes before the pronouns. The personal pronouns and their reflexive derivations are presented below:

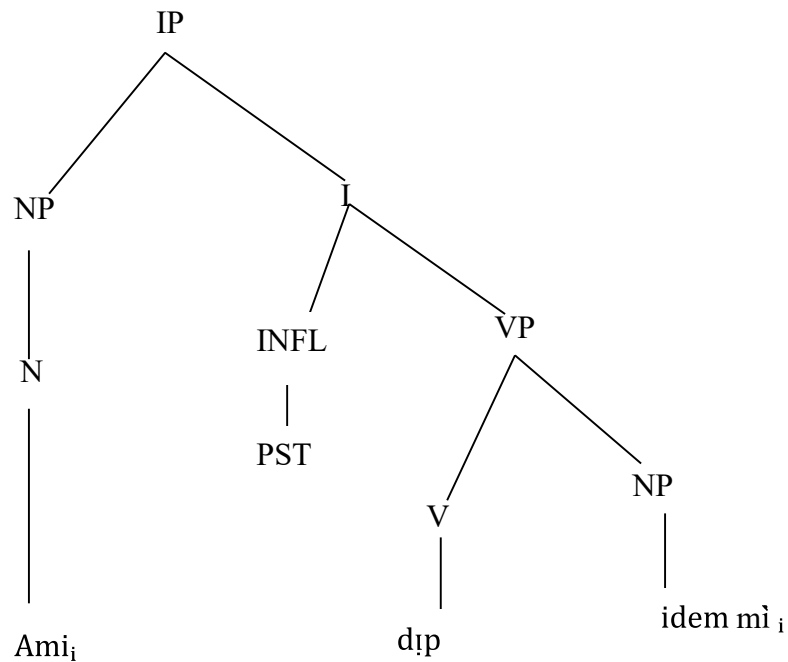
<i>idém</i> ‘body’ + <i>ámì</i>	‘1sg’ <	<i>idém̀m̀ì</i>	‘Myself’
<i>idém</i> ‘body’ + <i>mfò</i>	‘2sg’ <	<i>idém̀fò</i>	‘yourself’
<i>idém</i> ‘body’ + <i>m̀m̀ò</i>	‘3sg’ <	<i>idém̀m̀ò</i>	‘itself/himself/herself’
<i>idém</i> ‘body’ + <i>ñnyín</i>	‘1pl’ <	<i>idém̀ñnyín</i>	‘ourselves’
<i>idém</i> ‘body’ + <i>m̀b̀ùfò</i>	‘2pl’ <	<i>idém̀m̀b̀ùfò</i>	‘yourselves’
<i>idém</i> ‘body’ + <i>m̀m̀ò</i>	‘3pl’ <	<i>idém̀m̀m̀ò</i>	‘themselves’

Below are constructions which indicate the reflexives and their antecedents.

1. *Ám̀ì* _i *d̀ìp* *idém̀* *m̀ì*
1sg hide 1sg-REFL
‘I hide myself’
2. *Etim* _i *ámá* *idém̀m̀ò*_i
Etim love 3sg-REFL
‘Etim loves himself’
3. *̀Ǹd̀ìtò* _i *ufok̀ẁed* *énàm* *útóm* *kéi’de’mm’* *m̀ò*_i
Students do work by 3pl-REFL
‘The students did the work by themselves’
4. *ñnyín* _i *k̀ìẁap̀pe* *ùkóm* *ke* *idém̀ñnyín*_i
1pl PAST-pull plantain PREP 1pl-REFL
‘We pulled the plantain by ourselves’

From the examples above, the reflexives are found within the same minimal clause with their antecedent. This aligns with the Principle A of the binding theory which states that an anaphor must be antecedent bound in a minimal domain. By bound, they must be co-indexed (marked with the same referential index) with a c-commanding element. The minimal domain is the clause containing the NP. In Example (1) *Ámì* 'I' and *ídém mi* 'myself' are clause mates (c-command) and they are co-indexed since they indicate the same case feature. The same thing occurs in examples (2), (3) and four (4) above

The tree below shows the binding conditions of reflexives in Ibibio



Reflexives in Ibibio perform both emphatic and non-emphatic functions in the language.

Example

5. *ñnyín_i imáwéd íkwó ké idémñnyín_i* (NON-EMPHATIC)
 1pl write-PAST song PREP 1pl-REFL
 ‘we wrote the song by ourselves’

6. *ñnyín_i ké idémñnyín_i imáwe'd íkwó* (EMPHATIC)
 1pl PREP 1pl-REFL write-PAST song
 ‘we by ourselves have written the song’

4.3 Reciprocals

A reciprocal pronoun is that which expresses the meaning of mutual relationship. This refers to a situation where there are two or more people who are doing the same thing to themselves. Examples of reciprocals are each other and one another. Reciprocals and their antecedents are found in the

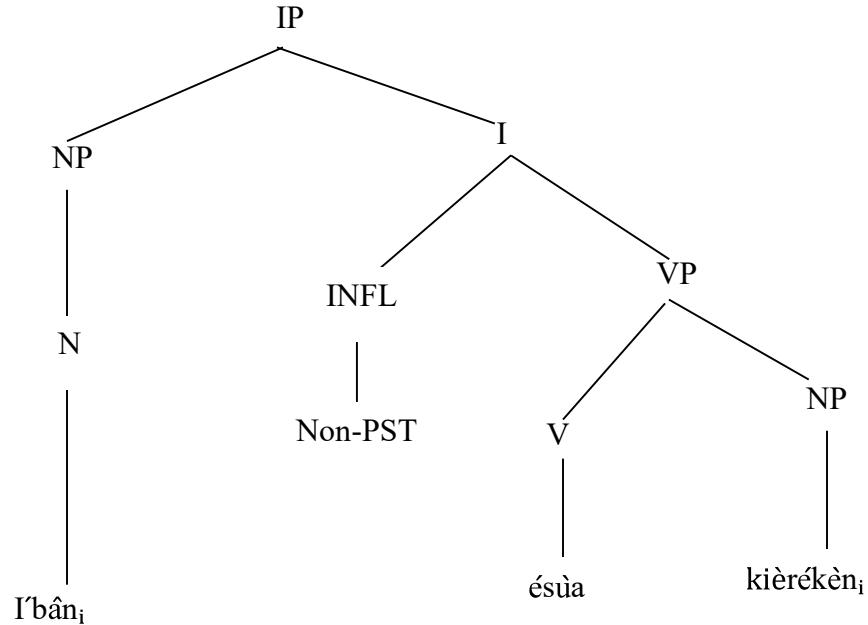
same minimal clause. The reciprocal pronoun in Ibibio is ‘kièrékèn’ which is a morphophonemically realized from ‘kièt’ and ‘ékèn’ which literally translates to ‘one another’.

Example:

7. Edet_i yé Peter éma`kièrékèn_i
 Edet CONJ PN love RECP
 ‘Edet and peter love each other’

8. Íbân_i ésùà kièrékèn_i
 PL-woman hate RECP
 ‘The women_i hate one another_i’

Although Ndimele (2007) states that traditional grammarians ascribe each other to a situation involving just two persons or two entities, while one another involves a situation involving more than two persons or two entities, this does not reflect in the Ibibio language. In the language only kièrékèn marks both each other and one another.



Íbân_i ésùà kièrékèn_i
 ‘The women hate each other/ one another’

Figure 2

Binding conditions in Ibibio also indicates that the reciprocal is bound by its antecedents in the language also aligning with the Principle A of the binding theory. The examples above on reflexives and reciprocals in Ibibio indicate that the binding conditions of anaphors in the language align with the universal binding Principle A.

4.4 Personal pronouns

Personal pronouns are pronouns that are associated primarily grammatical features of person, gender and case. These pronouns can occur with or without a sentence in internal antecedent as long as the antecedent is not in the same local class. They seek their antecedents outside their local binding domain containing them. A Personal pronoun is free in its local domain but can be bound elsewhere. A pronoun can have an antecedent as long as the antecedent is not local or does not c-command the pronoun.

- i. That it rains bothers him (No antecedent)
- ii. Maureen thinks that I hate her (Non-local antecedent)
- iii. * Peter watches him in the mirror

The pronoun can optionally get their meaning from another NP in the sentence; they may also get their meaning from somewhere else also.

Personal pronouns in Ibibio include:

Nominative case	Accusative	gloss
àmí	mìén	I
àfò	fién	You
ànyé	ànyé	He/She
ñnyín	ñnyín	'1pl' "us"
m̀bùfò	m̀bùfò	'2pl' "you"
mmò	mmò	'3pl' "they"

The examples below show personal pronoun and binding condition in Ibibio.

9. Etim_i áyàm ùr̀̀a. ànyé_i áyàm ádàn
Etim sell market. 3sg sell oil
'Etim_i is a trader. He_i sells palm oil'
10. Unwana yè Edidiong_i èbá ké essien, mmò_i ké dí yè ufàn m̀m̀ò
Unwana CONJ Edidiong_i are outside, they_i came with their friends'
'Unwana and Edidiong_i are here, they_i came with their friends'.
11. John ábó kéísùk ídí
John PAST-say will come
'John said that he will come'
12. Ñ̀dító ñ̀m̀dòdò èbá m̀, ñ̀m̀dòè má dì yè ñ̀m̀m̀è ùfàn ñ̀m̀m̀ò
Children be-pl here, 3pl PST-come PREP friend-pl
The children are here, they came with their friends
13. Fred ámábèp mmé Gift á má bájá áyìn
Fred PST-ask CONJ Gift PST-mention name
Fred asked whether Gift mentioned name.

It is important to note that there is no overt marker of pronoun in example 11.

Example (9) and (10) aligns with the Principle B of the binding theory which states that a pronoun must be free in a minimal domain. However, in the language, there are certain cases where this principle does not apply. In example (11) the personal pronoun acts as an adposition which when removed from the clause makes it ungrammatical. The personal pronoun is now found in the same minimal clause with its antecedent. Also, in most cases, after the binder (antecedent) in the first minimal clause, there is no overt personal pronoun to indicate the binding in surface syntax. This is exemplified in (11) this therefore shows that personal pronouns in Ibibio do not always conform to the Principle B of BT.

4.5 R- expressions

These are full-fledged NPs such as proper or common nouns. They are typically referentially independent and descriptively richer than the reciprocals, reflexives or pronouns. R-expressions do not occur with a sentence internal antecedent at all, regardless of whether the antecedent occurs within the same local clause or not. E.g. The R-expressions are free both in their local and non-local domain. E.g. John is a teacher. Here, John does not need any binder. Substantive nouns are binders themselves and cannot be bound.

Examples:

14. Unwana ado atoiwan
Unwana be- farmer
Unwana is a farmer

15. John àmákíd ñdùsé àmò ké ñwèd
John PAST-see picture him PREP paper
John saw a picture of him in the paper.

16. Emem àmà ànyé
Emem 3sg-like her
Emem likes her

17. Ubong-Abasi àdèp didià onò Ifiok.
Ubong-Abasi 3sg-buy food PREP Ifiok
Ubong-Abasi buys food for Ifiok.

5.0 Summary

The binding conditions in Ibibio which were treated in this work were those of overt NPs. Anaphors are bound by their antecedents. The reflexives in Ibibio are formed by adding the morpheme *ìdém* to the personal pronouns. There is only one reciprocal in Ibibio, ‘*kièrékèn*’ which is a morphophonemically realized from ‘*kièt*’ and ‘*ékèn*’ which literally translates to ‘one another’. In Ibibio, the binding conditions of anaphors in the language aligns with the universal binding Principle A which state that an anaphor must be antecedent bound in a minimal domain. Personal pronouns in Ibibio do not always conform to the principle B of BT. In most cases, personal pronouns in Ibibio aligns with the Principle B (a pronoun must be free in a minimal domain) of the binding theory. The personal pronoun may also act as an adposition to its antecedent in the same minimal clause which when removed from the clause makes it ungrammatical. In other cases, after

the binder (antecedent) in the first minimal clause, there is no overt personal pronoun to indicate the binding condition in surface syntax. R-expressions in Ibibio conform to binding principles C which states that the R-expressions are free both in their local and non-local domain.

Abbreviations

1sg	First person singular
2sg	Second person singular
3sg	Third person singular
1pl	First person plural
2pl	Second person plural
3pl	Third person plural
GB	Government and Binding
IP	Inflectional Projection
N	Noun
Non-PST	Non-past
PREP	Preposition
PST	Past
REFL	Reflexive
RECP	Reciprocal

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