The Structure of Noun Phrase in Kambari Language-Nigeria

Muhammad, Abubakar (Ph.D)
Department of Modern European Languages & Linguistics,
Usmanu Danfodiyo University, Sokoto
Sokoto State-Nigeria

Dantata, Aliyu Ibrahim
Ibrahim Badamasi Babangida University
Lapai, New Bussa Campus
Niger State-Nigeria

Abstract

This paper examines and identifies the distribution and interpretation of the various canonical NP types in Kambari language. This is done with a view to identify its morpho-syntactic properties within the purview of Binding Theory as outlined by Chomsky. The study owes its motivation to the fact that Binding Theory cut across all human languages and thus, is an essential aspect of formal linguistics, which has hitherto helped to identify the core principles of Universal Grammar. We find Kambari language to be from different language phyla with all languages in Europe and Asia, yet its NP appears to pattern in the same way in many respects with some languages. We argue that Kambari language satisfy the same Binding Conditions encoded in the Classical Binding Theory. Despite its appearance, Kambari morphology diverges with some languages. However, Kambari reflexives are bimorphemic. First, Kambari anaphors (reflexives) agree with their antecedents only in person and number since it lacks gender distinction. Second, Kambari displays, what appears prima facie to be double antecedents, somewhat an unconventional morphological property whose grammatical role is at present unclear. Finally, empirical evidence has shown that reciprocals are nonexistent in Kambari.

Key Words: Binding Theory, Kambari language, Anaphors, Double antecedent, Reciprocals, Bimorphemic.

1.0General Introduction

The focus of this study is to show the structure of Kambari noun phrases (NPs) with respect to its distribution and interpretation in the light of Binding Theory, a sub-module of Government and Binding Theory proposed by Chomsky (1981, 1986 and subsequent works). A structural study of languages is an essential aspect of formal linguistics as suggested by Cinque & Kayne (2005). They argued that the study of a language or closely related languages and/or dialects, or even unrelated ones has proven extremely useful in illuminating relations between cross-linguistic syntactic differences that might otherwise appear unrelated, and has helped to identify the core principles of Universal Grammar; hence the present study is an attempt in this direction. Basically, therefore the main aim of this study is to show the application of the Binding Theory in Kambari within the GB framework as outlined in Chomsky (1981, 1986).

First and foremost, this study owes its motivation to the fact that, to the best of our knowledge, the application of the Binding Theory in Kambari has not been addressed. More so, a study of this nature is also motivated by the fact that it demonstrates the extent to which syntactic theories can be generalized to languages other than English or those languages where such theories emanate from. Various structures have been studied in the literature (Cf. Rizzi (1982), Kayne (1984) and Picallo (1984) among others). In this work, focus has been on the three major classes of noun phrases that have been used in similar studies of this type namely: Referring expressions or Full lexical NPs, Pronominals and Anaphors. Our tasks here are basically triad. First, an attempt has been made to identify the form and functions of the three major categories of NPs in Kambari language; secondly its distributions and interpretations has been determined; thirdly, its theoretical implications thereof has been established vis-à-vis the general framework of Principles and Parameters Approach to the study of human language.

Kambari language is from different language phyla with English, French or German. Kambari is thus classified as Niger-Congo, Volta-Congo, Benue-Congo, Kainji, Western-Kainji, Kambari Group,(Crozier and Blench (1992: 62)).Anticipating our discussion in the sections below, we argue that Kambari language satisfies the same binding conditions encoded in the Classical Binding Theory. However, this might not be unconnected with the fact that the language exhibits the same basic configurationally pattern with some languages of different phyla, SVO. The paper is structured along the following lines: Section **1** contains the general considerations. A concise overview of the Binding Theory is presented in Section **2**. Section **3** deals with the analysis of the NPs in Kambari in the light of the Binding theoretical constructs. Concluding remarks and direction for future research is the subject matter of section **4**.

1.1 The Structural Study of NP

The study NP structure across human languages is a very robust area of study especially within the theoretical framework of Universal Grammar advocated by Chomsky and those who subscribe with him. According to Cinque &Kayne (2005), studies of NP structure have grown to the point where a reference work is needed to comprehensively explain the state of the field and make its results more widely known, thus the present study is an attempt to partly fulfill this need. The study of NP structure is not new in the literature. Several studies focused on different facets of NP cross-linguistically within the confines of Government and Binding Theory. However, the distribution and interpretation of NPs in Kambari language has not been addressed to the best our knowledge. This further, underscores why we undertake the present study.

In order to determine how a specific language (say Kambari) is acquired and how knowledge in general is acquired, we have to determine to what extent the properties of languages vary from one language to another. Differently put, to what extent they are invariant across languages and its parameters postulated to explain cross-linguistic variation. The study of languages has revealed that the properties with respect to which languages vary tend to organize themselves in clusters which are stable across languages and which allow to arrive at a typology of languages. It therefore follows that the language faculty must incorporate a theory of Universal Grammar which enables the child to develop a grammar of *any* natural language on the basis of suitable linguistic experience of the language (Haegeman1994:19). Hence, this serves as a launching-pad for this modest research.
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2.0Binding Theory: A Concise Overview

This section examines the treatment of binding phenomenon in the generative grammar framework. We will not give an exhaustive summary of generative approaches to binding but will rather concentrate on the classical Chomskyan approach ignoring for the moment the other approach which differs slightly from the former in its empirical coverage. The latter is the geometrical theory of binding advocated within the Government and Binding (GB/Principles & Parameters (P&P) framework of (Chomsky, 1980, et al.), presumably the most well-known approach to binding of all, the former is the semantically grounded binding theory of Reinhart & Reuland (1991) which is possibly the most oft-cited alternative. We will also forgo any discussion of the formulations in non-GB syntactic frameworks such as LFG and HPSG, even though Everaert (2001) largely downplays the differences. Given the breadth of binding-theoretic research, many key issues cannot be addressed here. We simply adopt a narrowly syntactic focus on Binding Theory, and largely disregard the morphology and semantics of pronominal and anaphors. In particular long-distance anaphors which challenge the tripartization of NPs suggested in Chomsky (1981) is beyond the present discussion. Binding Theory, by definition straddles the syntax-semantics interface (cf. Truswell 2014: 215) and of course there exist a robust semantic literature on anaphora (see Evans 1980 for foundational work, and Buring 2005: for a recent introduction).

The classical Chomskyan approach to binding phenomena is formulated in his *BindingTheory* (henceforth BT) (Chomsky 1980, 1981, 1982, 1986). The formulation of BT presented here is most closely based on Chomsky (1981) being the most standard variant and perhaps the canonical approach. Several revised versions of BT have been proposed in the literature on diverse grounds (cf. e.g, Chomsky (1986), as well as the reductionist approaches of Manzini (1983), Bouchard (1984), and Burzio (1989), inter alia, or the expansionist revision of Lasnik (1989) and later Thrainsson (1991)). It is beyond the scope of this work to introduce or debate the details of these issues, though. BT is conceived to be a module of grammar that specifies specific configurational constraints on various categories of NPs and thus regulates the referential properties of those NPs. Specifically, BT is responsible for the regulation of relations between NPs in bound argument positions, (i.e*'A-positions'*) and their binders. In this connection BT is a theory of *A-binding*, where the relevant definitions are given in (1) below.

Again a caveat here is in order. We declined to include any discussion of non-overt NPs postulated in GB or other generative grammar framework, see Huang (2000, 50-90) who also suggests detailed pragmatic alternatives to these analysis in several works, (Huang 1994, 2000, et al.)). The standard variant binding mechanism and constraints include the following:

(1a) *(A-) Binding*
a (A) binds ß iff
a. α is in an A-position
b. α c-commands *ß*
c. α and *ß* are coindexed.

(1b) *C-command*
a c-command ß iff
a. α does not dominate *ß*
b. ß does not dominate α
c. the first branching node dominating α does not dominate *ß*

BT, is principally, concerned with the distribution and interpretation of NPs in a sentence, determining the situation in which they can co-refer or must be co-indexed with other NPs. According to Horrocks (1987), for the purpose of BT, NPs that are arguments are assumed to fall into one of the three categories as in (2) below:

(2a) (i) Anaphors (reflexives and reciprocals)
(ii) Pronominals
(iii) Referring Expressions or Full Lexical NPs

Non-argument NPs, such as expletive *it* and existential *there* are outside the system. Traditionally, there are three principles on which BT is organized otherwise known as Binding Conditions A, B and C, each addresses and regulates the distribution and interpretation of each of the NPs identified above. Chomsky (1982, 78-89) argues that the notions *Anaphor*, *Pronoun* and *R-expression* are not syntactic primitives, but can rather be characterized in terms of two primitive, binary features ±*anaphoric* and ±*pronominal*, where the distribution of features for overt NPs is as below:

(2b)

	R-expressions	Pronouns	Anaphors
Pronominal	---	+	---
Anaphoric	---	---	+

The BT can then be formulated in terms of the feature specifications for the distinct NP types. According to Giorgi & Longobardi (1991: 16), such a tripartion of nominal expressions follows from the interaction of two binary features: ±*anaphoric* and ±*pronominal.* The combination of the positive value for both features cannot correspond to a lexical item, due to independent considerations concerning Government and Case theory (Giorgi & Longobardi; ibid). In Standard Binding Theory (Chomsky, 1981) anaphors and pronominals are in complementary distribution within their binding domain.

(2c) *Binding Principles*

Principle A: An NP with the feature specification + Anaphoric must be bound in its governing category.
Principle B: An NP with the feature specification + Pronominal must be free in its governing category.
Principle C: An NP with the feature specification – Anaphoric and – Pronominal must be free everywhere.

Principle A through C heavily rest on the notion of a relevant local domain also known as 'governing category', which in turn contingent on the notions of 'government and accessible subject/SUBJECT', specified thus:

(2d) *Governing Category (GC)*

The *governing category* of *ß*is the minimal domain containing

a. *ß*
b. a governor of *ß*
c. an accessible subject/SUBJECT for *ß*

(2e) *Government: a governs ß* iff
a. α does not dominate *ß*

b. the lowest maximal projection that dominates α also dominates *ß*
c. there is no maximal projection (of a lexical head) between α and *ß*
(2f) subject/SUBJECT
a. subject: NP in [Spec, XP]
b. SUBJECT corresponds to finite AGR.
(2g) *Accessible subject*/SUBJECT
a. α is an accessible subject/SUBJECT for *ß* if the co indexation of α and *ß* does not violate any grammatical principles.

3.0Distribution and Interpretation of NPs in Kambari language

Following Chomsky (1981, 1986), Buring (2005), Haegeman (1994), Pollard, Carl and Ivan A. Sag (1992), we assume that Binding Theory regulates the distribution and interpretation of noun phrases in any human language, subcategorizing them into three distinct sub types: Anaphors, Pronominals and R-Expressions. Preliminary investigation has shown that Kambari NP distribution exhibit similar patterns with some languages like English with very few areas of contrasts. Though Kambari lacks reciprocals and gender distinction, yet the language exhibitssimilar pronominal system, and it displays the SVO word order. Consider the following examples:

(3) a. N cayit<u>a</u>atagada.
1.sg. give. Pst. herCM books
/n ʧajitəatagada/
'I gave her the books.'
b. Me ene t<u>a</u>unusuwaaciy<u>a</u>v<u>a</u>.
1.sg. see.Pst.CM sin of myself
/me ne təunusuwaaʧʃijəvə/
'I blame myself.'
c. U ~asa t<u>a</u>aciyayi.
3.sg. slap.Pst.CM herself
/u ɓasatəaʧʃijaji/
'She slapped herself.'

Since the purpose of this study is to examine the structure of NPs in Kambari within the purview of Binding Theory, it may be out of place if we make some preliminary remarks regarding its overall composition in the light of the theory. We will first look at the distribution and interpretation of NPs in Kambari. Secondly, we scrutinize the claims made in the above binding formulations. We begin with Anaphors.

3.1Anaphors

Languages contain a class of NPs that are called anaphors. These are elements that have no independent reference, but depend on an antecedent for their interpretation. Anaphor is an NP that obligatorily gets its meaning from another NP in the sentence. Every anaphor must have a coindexed, c-commanding antecedent NP within the same (root) sentence. The classical case of anaphoric elements, for example, in Kambari, is reflexive pronouns (aciy<u>a</u>v<u>a</u> 'myself', aciy<u>a</u>wu 'yourself', aciy<u>a</u>yi 'him/herself', aciyele 'themselves',aciyatsu 'ourselves'etc) without reciprocals which is nonexistent in the language. It has commonly been assumed that a single generalization determines the possible antecedents of anaphors (reflexives and reciprocal expressions) in human languages. But the transformations proposed by Lees & Klima (1963), the rules of interpretation formulated by Jackendoff (1972), and Principle A of Chomsky's (1981, 1986) Binding Theory are all attempts to provide a unified account of the binding properties of anaphors in human languages. Basically, anaphors subsume reflexives and reciprocals. These we consider in turn.

3.1.1 Reflexives

Kambari reflexives are bimorphemic; it apparently consists of *self* + accusative pronoun. Thus, the pronominal part in Kambari agrees in number and person, it lacks gender distinction. A reflexive must be coreferential with another NP in Kambari language. Thus, agreement in person and number is obligatory but not gender. Reflexives seem to minimally differ from pronominals in that they cannot be used in a sentence unless there is another coreferential NP in the sentence as in these examples:

(4) a. **Esheli'i**$_i$a ciga ta **aciyele**$_i$.
Girls the they like/loveCM themselves
'The girls like each other'
b. **Peshe**$_i$kalyuwata**aciyayi**$_i$amasukaci'i.
PeshewatchS. prCMherself in mirrow the
'Peshe watches herself in the mirrow'

These examples are accounted for within Chomsky's binding theory by Principle A, which requires that a (governed) anaphor be A-bound (coindexed with a c-commanding NP in an argument position) within a suitably defined minimal syntactic domain (Chomsky 1981). In (4a), *Esheli'i* is coindexed with *aciyele*, and therefore *aciyele* is c-commanded and bound by the antecedent *Esheli'i*. Whereas (4b) denotes the same indices between *Peshe* and *aciyayi* which made them to corefer to each other. *Aciyayi* is bound and c-commanded by the antecedent, its governor.

Consider what follows in example (5) below:

(5) **Langashi**$_i$eneta**aciyayi**$_i$.
Langashisee.PstCMhimself
'Langashi saw himself'.

In this example, '*aciyayi*' a reflexive, corefer to its antecedent in number and person (gender is not differentiated) in Kambari language. *'Aciyayi'* is not free in its binding domain, therefore bound to its antecedent *'Langashi'*, because they are coindexed and the reflexive *'aciyayi'* is c-commanded by the NP *'Langashi'*. Having examined the distribution of reflexives in Kambari language, we now turn to reciprocals.

3.1.2 Reciprocals

These are also anaphors but absent in Kambari, and thus subject to principle *A*, and to the agreement requirements. A reciprocal requires an antecedent that is plural in form; thus, reflexives are used in Kambari Language to have the same effect as demonstrated by the following:

(6) a. *A*cigalai ta**aciyele**.
They like CMthemselves
'They like each other'
b. *Muwun* m makaranta'an**'yuwalai** ta.
Chidren of school the they hate themselves CM
'The students hate each other'

The reflexives that are used to achieve the desired reciprocity in bold italics in (6a-b) agree with their antecedents in number and person. The antecedents (*a* and*Muwun,*) are all plurals. *A* is 3rd person plural form and*Muwun* is personal pronoun plural. The anaphors discussed in the preceding section differ significantly from pronominals which constitute another subset of NPs. This we consider presently.

3.2Pronominals

This is another type of NP. These are NPs that can optionally get their meaning from another NP in the sentence, but may also optionally get it from somewhere else (including context or previous sentences in the discourse). Pronominal is an NP that may (but need not) get its meaning from another word in the sentence. These NPs are called pronouns or pronominals and they seem to be in nearly complementary distribution with reflexives (Lees & Klima 1963). Thus, we can account for the distribution of pronominals by requiring them to satisfy a condition opposite to that which anaphors need to satisfy.

Anaphors are not the only NP type with restrictions on their syntactic position. Pronominals are constrained in certain ways. Consider the constructions in (7) below:

(7) a. **E**$_i$enetan'utsa n **le**$_i$.
3rd.pl. see.Pst. CM friends of 3pl.acc
'They saw their friends'.
b. **A**ca **yi**taikebe.
3rd.pl.give.Pst.him/her CM money
'They gave him/her some money'.

(8) a. **Wu** una **yi**ta.
S/he kill.Pst.her/himCM
'S/he killed her/him'.
b. **Wu**unataaciyayi.
S/he kill.Pst.CM her/himself
'S/he killed her/himself'.

(9) a. **U**dammata**u**takamba.
S/he say.PstCMs/he will.Pst.go back
'S/he said that s/he would go back'.
b. **U**kambuwa**mu**tamota.
S/he return.Pst.meCM car
'S/he returned the car to me'.

(10) **Me**enetaunusuwaaciyava.
I see.Pst.CM sin of myself
'I blame myself'.

(11) **N**cayitaatagada.
I give.Pst.her/him CM books
'I gave her/him the books'.

It should be noted that Kambari language lacks gender distinction, as can be seen in the above examples, and its pronominals are quite distinct. The third person plural form in Kambari should either be '*e*' or '*a*', this is determined by the verb the pronoun antecedes. In examples (7a-b), the difference is that of phonology, the pronoun '*e*' precedes any verb that begins with a vowel sound and there is a glide in its production and/or articulation, while the pronoun '*a*' precede verbs that begin with a consonant sound. The Kambari third person singular form behaves exactly the same way as its plural counterpart. The pronoun '*wu*' in (8a-b) comes before a verb that begins with a vowel sound and there is a glide in its production or articulation, as in the case of example (7a-b), while the pronoun '*u*' in (9a-b) comes before any verb that begins with a consonant sound. The first person singular pronoun '*me'* and '*n'* exhibit similar pattern with the third person plural form.'*me'* comes before a verb that begins with a vowel sound and there is a glide in its production or articulation, and '*n'* comes before a verb that begins with a consonant as examples (10-11) showed. Restriction of NPs in there syntactic position is a property of pronominals, which is also evident in Kambari.

Furthermore, the same can be seen in the following examples:

(12) **Mogono'o**ca**yi** taikebe.
King the give.Pst. him/her CM money
'The king gave him/her some money'.

(13) **Mogono'o**una**yi** ta.
King the kill.Pst. him/herCM
'The king killed him/her'.

(14) **Mogono'o**ca**yi** taatagada.
King the give.Pst. him/her CM books
'The king gave him/her the books'.

Pronouns like *yi* in sentences (12-14) are not bound. (They are not co indexed by a c-commanding NP.) The sentences in (12-14) may only have the meaning where *yi* refers to someone other than *Mogono'o*. Unlike the case of anaphors, (which *must* be bound in a particular configuration), pronouns seem only to have a limitation on where they *cannot* be bound. That is, a pronoun cannot be bound by an antecedent that is a clause-mate (in the same immediate clause). You'll notice that this is exactly the opposite of where anaphors are allowed. This restriction is called ***Principle B*** of the Binding Theory. It makes use of the term *free*. ***Free*** is the opposite of bound. The pronoun must be free within its binding domain. We now turn to the last but not the least distinct NP type, R-expressions.

3.3R-expressions (Full Lexical NPs)

R-expressions or Full Lexical NPs are those that get their meaning by referring to an entity in the world. R-expressions have yet another distribution. R-expressions don't seem to allow any instances of binding at all, not within the binding domain and not outside it either, Carnie (2006).

R-expressions occur in a proper subset of the environments which allow pronouns, thus, Full Lexical NPs are free, independent elements. R-expressions in Chomsky (1981) are typically referentially independent, and descriptively richer than reflexives, reciprocals, or pronouns, given the fact that R-expressions do not exhibit co referential relations. One might think that while pronouns and anaphors might vary from one language to another, names and descriptions and other R-expressions are probably basically the same in all languages, at least with respect to their binding properties. The constraint that describes the distribution of R-expressions is called

Principle C

Notice that Principle C says nothing about a binding domain. Essentially R-expressions must be free everywhere. They cannot be bound at all. We return to this in the sections below. In Kambari,R-expressions cannot be bound as is instantiated in the following sentences:

(15) **Ango**dammatau tayuwusanmajiyan**Fatima**cigayita.
Angosay.Pst. CMhe is do.Pr.cont. think.Pr.cnt. Fatima like.Pst. himCM
'Ango said he thought that Fatima liked him.'

In (15) above, the Kambari R-expressions *Ango* and *Fatima,* occur in a proper subset of the environments which allow pronouns as an independent element. *Fatima* is not bound by *Ango*, each is free. There is no distinction in the form of Kambari NPs in this instance, unlike what occurs in the following example (16) below:

(16) **Esheli'i** aciga taaciyele.
Girls the they like CM themselves
'The girls like themselves.'

Here again, the NP *Esheli'i* is free in its domain. The only contrast to be found in some languages is in the form, that of morphology, where the 'determiner' is fussed with the noun, *Esheli'i* 'Girls the' (*Esheli*-Girls and '*i*-the). This shows the form of the Kambari NP in contrast to that which obtains in English, French or German. Again, consider (17) below:

(17) **Muwu'un**n gasatayanjia]uma e le.
Children the they harvest CMmillet at farm of them
'The children harvest the millet in their farm'.

The R-expression in example (17) shows that it is free and the determiner is equally fused with the noun. The form is not similar to that of English, French or German because the determiner and noun in English are two separate entity – *the children* – in contrast to Kambari R-expression where it is fused together as in *muwu'un* (= children the), there is a morphological difference in the form of the two languages. It should be noted that Kambari language displays to certain degree synthetic morphology as seen in example (17) above. Consider example (18) below:

(18) A]angwata**Kovi**woo o'wo**mogono'o**moAuna.
They chose CMKovi he will become king the of Auna
'Kovi was elected the village head of Auna'.

In the example above, we notice that the two R-expressions behave differently, the reason being that real names don't take determiners like other R-expressions; such is the case of *Kovi*, which is similar to English personal human naming system. However, other R-expressions apart from names for individuals take determiners in Kambari, such as *mogono'o 'kingthe',* in Kambari. Here again, morphology plays a vital role in Kambari language R-expression, but the two R-expressions are free in their environment.

(19) **Muwu'un**n dammataaciyele**ulinga'a**waadanausanshi.
Children the theytell.Pst.CM themselves work the it will be hard not
'The children told themselves that the work wouldn't be too hard'.

The example in (19) above shows that the R-expressions are all free, and it reveals similar properties of NP in Kambari where real names don't use determiners in contrast to other Full NPs as the case of '*Muwu'un-children the'* and '*ulinga'a-work the'* shows. This is a clear example that Kambari R-expressions are morphologically rich in form. This can further be seen in the following example (20) below:

(20) **Mogono'o**$_i$***u***dammata**Vanumu**$_j$kambuwayi$_i$niishe'en.
King the he say.Pst. CM Vanumu return him with hoe

'The king said that Vanumu should return the hoe to him'.

The NPs of Kambari in this example also show a morphological interplay where '*Mogono'o-kingthe'* seems to be free in its environment with a fused determiner, and '*Vanumu'* however, though free in its environment, without a determiner. *Vanumu*is not bound to *Mogono'o* because they are all free and satisfied principle C of the Binding Theory.

(21) **Tagwai**yuwan taatyoanawaayuwanurana'ama~ulaagba u koto**ulinga'a**shi.
Tagwai do CM best that he will do day complete and he finish work the not
'Tagwai has tried all day but he cannot finish the work'.

Example (21) above shows the distribution of real names and other Full NP types inKambari. We notice that Full NPs are free everywhere in Kambari with a morphological difference in its form. R-expressions like '*Tagwai'*, a real name without a determiner and '*ulinga'a-workthe'*, another Full NP type, where the determiner is fused with the noun.

(22) **Vuma'a$_i$u$_i$** 'yuwan taaciyayi$_i$adamao osoamara.
Man the he refuseCM himself because of drink.Pr.cont. of bear
'The man hates himself for drinking beer'

We should note that Full lexical NPs in Kambari is similar in its distribution because the form is free in the environment where it occurs as example (22) above shows, '*Vuma'a'* cannot be bound by '*aciyayi'* in this example which is in accordance to principle C of the Binding Theory. Consider again the following example in (23) below:

(23) **Mogono'o$_i$u$_i$**tawaataniikarabu o una.
King the he bring.Pst. CM with maize from farm
'The king brought the maize from the farm'.

In this example, because the NP is not a real name, the determiner is fused to the noun. The distinction in the form with other languages is that of morphology (*mogono'o – kingthe*), and double antecedent *(mogono'o and u)* referring to the same entity, rather than phonology as seen in the case of most pronouns in Kambari language.

(24) **Ali'i$_i$a$_i$**cuwataaciyele$_i$.
Men the theypraise.Pst.CM themselves
'The men praised themselves'.

This example (24) shows a distribution similar to (22 & 23); it seem to us that we have a case of double antecedent in the sentences where (*Vuma'a* (i.e*manthe)* and *u* (i.e*he*)) in (22), (*Mogono'o* (i.e*kingthe)* and (*u (i.e (he*)) in (23) and (*Ali'i*(i.e*menthe)* and *a (i.ethey)*) in (24): in all these instances, the double antecedents prima facie refer to the same entity. We will return to this in the section below.

(25) **Egbere$_i$**tajiyisan a nan$_j$'yuwanyi$_i$ta.
Egbere is think.Pr.cont. that I hate her CM
'Egbere thinks that I hate her'.

The form of the NPs in the above example shows that '*Egbere'*, a Full lexical NP is free in its environment and it satisfies the requirement of principle C of the BT, while the other two NPs in the sentence (*n* and *yi*), pronominals, each conforms with principle B of the Binding Theory. One is free in its binding domain while the other is not free within its binding domain – '*n* (i.e I)' is free while '*yi*(i.e her)' is not, it is bound by the antecedent because they are coindexed and therefore corefer to one another. Consider (26) below:

(26) **Peshe$_i$**je'entana**Cigashi$_j$**.
Peshedance.Pst. CM with Cigashi
'Peshe danced with Cigashi.'

In the above example, the two Full lexical NPs are all free. Thus, Kambari conforms to principle C of the BT. The NPs are not bound and each is an independent entity.

(27) Wu$_i$unata**Langashi$_i$**.
S/he kill.Pst.CM Langashi
'S/he killed Langashi'.

In virtue of the fact that binding is typically an asymmetric relationship, in example (27) above, the pronominal *'Wu'* binds the Full NP *'Langashi'* The binder here is '*wu'*because it is coindexed with *'Langashi'* and c-commands *'Langashi'*. *'Langashi'* is the thing being bound (the bindee).

This in itself isn't surprising, given the fact that R-expressions receive their meaning from outside the sentence (i.e., from the context). That they don't get their meaning from another word in the sentence (via binding) is entirely expected. The whole point of identity in sentences of this kind is to convey the information that two distinct (i.e. distinctly indexed) expressions refer to the same entity in the world of discourse. Thus far, co-indexing has same index; binding requires a c–command relationship between the co indexed elements. In our discussion so far, we looked at sets of data concerning the distribution of different kinds of NPs in Kambari. We have seen that these different kinds of NPs can appear in different syntactic positions. In the next section, we shall consider how a simple set of Binding Principles (A, B, and C) also governs the distribution of NPs inKambari.

3.4Binding Principles and the Structure of NP in Kambari

Binding Theory determines the interpretation and distribution of Pronouns and Anaphors. It is formulated in terms of three principles: Condition A, which applies to Anaphors; Condition B, which applies to Pronouns, and Condition C, which applies to names and other referential expressions (R-expressions).

3.4.1Principle A

Binding principle A governs the distribution and interpretation of anaphors. Anaphors are dependent nominal elements, which must have a sentence-internal antecedent. Unlike pronouns, they cannot refer to sentence-external contextual elements. Most languages have two kinds of anaphoric elements: 1) reflexives, and 2) reciprocals, but Kambari language has only one form of anaphoric element: Reflexive.

The principle states that an anaphor must be bound in its binding domain and that reflexive and its antecedent must agree. This constraint says that anaphors must find an antecedent within the clause that immediately contains them. It is intuitively clear why co indexed elements should exhibit a form of agreement: co indexation indicates that the expression denotes the same entity; the properties indicated by agreement features are characteristically properties of the entity referred to (the expressions *denotation*). Thus singular NPs normally denote single entities, whereas plural NPs denote collections. Hence, a singular pronoun cannot normally be co indexed with a plural NP, because they cannot have the same denotation. Example (4b) is represented here as (28a):

(28) a) **Peshe**$_i$ka<u>a</u>lyuw<u>a</u>t<u>a</u>**aciy<u>a</u>yi**$_i$amasukaci'i.
Peshe watch S.pr CM herselfin mirror the
'Peshe watches herself in the mirrow'

b) ***Peshe**$_i$kalyuwa t<u>a</u>**aciy<u>a</u>v<u>a</u>**$_i$ a masukaci'i.
Peshe watch S.pr CMmyself in mirror the

In (28a) the anaphor *aciyayi* shows that it refers to an NP within the same domain, *Peshe*. The reflexive is bound by its antecedent, they are co indexed, and antecedent is the binder and the anaphor becomes the bindee. However, in (28b) the anaphor *aciy<u>a</u>v<u>a</u>* is not bound by the NP Peshe. They are co indexed but binding did not apply because there is no coreferentiality between the elements, they lack agreement in person. Similarly, consider Kambari data by the examples in (29) below:

(29) a) *Aciy<u>a</u>v<u>i</u>u~asa t<u>a</u> (*him/herself S/he slapped)
b) U ~asat<u>a</u>aciy<u>a</u>yi (S/he slapped him/herself)

Analogously, the ungrammaticality of (29a) of Kambari data here is attributed to the inability of *aciy<u>a</u>yi* (an anaphor) to appear in a nominative position. In (29b) the sentence is a well-formed construction in that the antecedent takes its nominative position and the anaphor its accusative position.

Again anaphors must have feature-compatible antecedents as in the following sentences:

Analogously, a scenario can be observed inKambari as exemplified in (30) below:

(30) a) *Egbere ta jiyisan a na*n*$_i$ 'yuwan t<u>a</u>*aciy<u>a</u>yi*$_i$. (*…that I hate herself).
b) *Ali'i*a*cuwat<u>a</u>*aciy<u>a</u>yi*. (men the they praise himself)

In examples (30a-b), the ungrammaticality resulted from the anaphors not agreeing with its antecedents in person (30a) and in number (30b). The double antecedents *'Ali'ia (= men the they)'* in (30b) have plural form and thereforedo not agree with the anaphor.

There is also a c-commanding relationship between a relevant antecedent and an anaphor; the antecedent must c-command the anaphor: The next principle is to be discussed is principle B.

3.4.2 Principle B

Principle B states that a pronominal must be free in its binding domain. Pronouns may not be bound. (A pronoun must not be c-commanded by a co-indexed NP within its own clause).

One of the properties of pronominal encoded in Principle B says that a pronoun can only be used if it is not A-bound at all, or if its A-binder is far enough away. Example (8a) in Kambari is showcased here as (31):

(31) **Wu** una **yi**ta.
S/he kill.Pst.her/himCM
'S/he killed her/him'.

In this example, *yi* is free in its binding domain; it is not bound by its antecedent and as such they are not coindexed in any form. The pronominal *yi* is not c-commanded by its antecedent *wu*. Consider the examples in (7a-b), (9a-c), (11), (12), (13) and (25),all to be presented here as (32a-j) with their respective interpretations below:

(32) a. **E$_i$**enetan'utsa n **le$_i$**.
3pl. see.Pst. CM friends of 3pl.acc
'They saw their friends'.

In example (32a) above, the Kambari pronominal *e* 3.pl. is coindexed with another 3.pl. accusative form *le*. The accusative form refers to an NP, its antecedent outside its domain.

b. **A**ca **yi** taikebe.
They give.Pst.him/her CM money
'They gave him/her some money'.

Example (32b) shows that the pronoun *yi* refers to an entity other than the antecedent *a* in the world of discourse. Thus, *yi* is free in its binding domain, it is not bound by the antecedent, they are not coindexed and they did not c-command each other. Thus, yi cannot refer to the same entity regardless of the domain. This is a property of Kambari pronominal pattern.

c. **U**dammata**u**takamba.
S/he say.PstCMs/he will.Pst. go back
'S/he said that s/he would go back'.

The example given in (32c) shows that the 3.sg. pronoun*u* refers to the same person in the world of discourse. Although the pronoun *u* is bound by the antecedent, it is free in its binding domain.

d. **U**kambuwa**mu** tamota.
S/he return.Pst.meCM car
'S/he returned the car to me'.

In example (32d) above, the 2.sg.acc.*mu* is free in its domain; it doesn't get its meaning by the 3.sg.nom. *u* form. Each is free in its binding domain because *mu* is not co referential with *u* in the structure.

e. **U**yuwan **wu**ta.
S/he speak.Pst.to you CM
'S/he spoke to you'.

Example (32e) exhibit similar pattern with (32d) because the 2.sg.acc. *wu* did not refer to the 3.sg.nom. *u*. They are all free in the binding domain. They cannot be co indexed nor co refer with each other.

f. **N**cayi taatagada.
I give.Pst.her/him CM books
'I gave her/him the books'.

In addition, the 3.sg.acc.*yi* in example (32f) can refer to any entity in the world of discourse rather than the 1.sg,nom*n* in the same domain. The 1.sg.nom.*n* and the 3.sg.acc.*yi* are not in any way referential with each other.

g. **Mogono'o**ca**yi** taikebe.
King the give.Pst. him/her CM money
'The king gave him/her some money'.

The 3.sg.acc.form*yi* in example (32g) shows that the pronoun cannot refer to the same entity *mogono'o* in the world of discourse. The pronoun *yi* can only get its meaning outside the context of discourse.

h. **Mogono'o**una**yi** ta.
King the kill.Pst. him/herCM
'The king killed him/her'.

In example (32h), the pattern is similar to (32g) because the 3.sg.acc. *yi* cannot refer back to *mogono'o* for its meaning. The pronoun is free in its binding domain in that it is c-commanded by *mogono'o* and as such they are not coindexed.

i) **Egbere**$_i$ ta jiyisana nan$_j$'yuwan**yi**$_i$ ta.
Egbere is think.Pr.cont. that I hate her CM
'Egbere thinks that I hate her'.

Example (32i) shows that the 3.sg.acc. *yi* refers to an NP *Egbere* outside the domain. *yi* is too close and/or in the same immediate clause with 1.sg. *n*. Therefore, *yi* and *Egbere* are co indexed and *yi* refers to *Egbere* for its meaning.

The examples discussed above show the Kambari pronominal pattern. We shall shortly see that the next principle imposes a different set of restrictions.

3.4.3 Principle C

Binding principle C states that R-expression or Full lexical NPs are free everywhere. They cannot be bound at all so as to rule out repetition of full nominal. Example (33) below buttress this fact:

(33) **Ango**dammatau tayuwusanmajiyan**Fatima**cigayita.
Angosay.Pst.CMhe is do.Pr.cont. think.Pr.cnt. Fatima like.Pst. himCM
'Ango said he thought that Fatima liked him.'

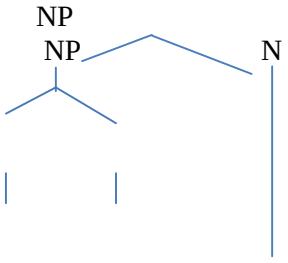
In (33) above, the Kambari R-expressions *Ango* and *Fatima,* occur in a proper subset of the environments which allow pronouns as an independent element. *Fatima* is not bound by *Ango*, each is free. There is no distinction in the form of the NPs in this instance.

One interesting phenomena to note in kambari data with respect to its R-expression is the notion of **'double antecedent'**, in most cases, the R-expressions that allow a determiner most often than not exploit double antecedent which constitutes a distinctive property of Kambari R-expressions. Consider what obtains in examples (34) below and its possible interpretation:

(34) a) **Ali'i**$_i$a$_i$cuwataaciyele$_i$.
Men the 3.pl.praise.Pst.CM themselves
'The men praised themselves'.

Example (34a) showcase an instance of double antecedent: '*Menthe*and*a*' are both possible antecedents, and as such they bind the anaphor *aciyele* being core ferential entity that agrees in number with its antecedent. This is represented in the tree below:

b)



Ali'i a (men the they)

This shows that there are double NPs in the construction of Kambari NPs R-expressions as againstwhat obtains in English, French or German languages.

c) **Mogono'o**$_i$u$_i$tawaataniikarabuouna.
King the 3.sg. bring.Pst. CM with maize from farm
'The king brought the maize from the farm'.

The same realization is evident in (34c) where we also see a double antecedent in the sentence. We have a singular R-expression with a determiner fused to the root word *mogono'o* and 3.sg.pronoun*u*.
There is no issue of binding in this example because the aim is to show how double antecedent works in the Kambari data presented here.

d) **Vuma'a**$_i$u$_i$ 'yuwan taaciyayi$_i$adamao osoamara.

Man the 3.sg. refuse CM himself because of drink.Pr.cont. of bear
'The man hates himself for drinking beer'

In example (34d), there is double antecedent and an issue of binding. Here, the anaphor *aciyayi*co refer with its antecedents (*Vuma'a* and *u*) and therefore bound. *aciyayi* refers to both NPs, *Vuma'a* and *u*. The above example is free of principle A because the anaphor is bound in its domain and the reflexive agree with its antecedents in number and person because gender is non-existent in Kambari language.

e) **Mogono'o$_i$** udammata**Vanumu$_j$**kambuwayi$_i$niishe'en.
King the 3.sg. say.Pst. CMVanumu return 3sg.acc. With hoe
'The king said that Vanumu should return the hoe to him'.

Example (34e) shows double antecedent and binding too. The two antecedents are *mogono'o* and *u*, and they are coindexed with the pronominal 3.sg. (*yi*) which is an accusative pronoun and it made them to corefer and the pronominal bound by its antecedents. There is agreement in number and person.

f) **Muwu'un$_i$**n$_i$dammataaciyele$_i$**ulinga'a**waadanausanshi.
Children the 3.pl. tell.Pst.CM themselves work the it will be hard not
'The children told themselves that the work wouldn't be too hard'.

In (34f), apart from double antecedent, binding takes place in a proper set of environment, within the binding domain. The anaphor and its antecedents both agree in number and person. The two antecedents' *muwu'un* and *n* are all plural forms and so is their bindee*aciyele*.

g) **Muwu'un$_i$**n$_i$gasatayanjia]umae le$_i$.
Children the 3.pl.nom.harvestCMmillet at farm of 3.pl.acc.
'The children harvest the millet in their farm'.

In example (34g), there is double antecedent and binding applies between the two antecedents' *muwu'un* and *n* with the anaphor in accusative case *le*. They are coindexed and the accusative pronoun is c-commanded by the antecedents. There is agreement between the antecedents and the accusative pronoun – they are all plural form.

h) **Esheli'i$_i$**a$_i$cigataaciyele$_i$.
Girls the 3.pl. like/love CM themselves
'The girls like themselves.'

Here in (34h), apart from double antecedent, the first antecedent *Esheli'i* is fused with its determiner and binding occurs too. The antecedents and the anaphor are co indexed which made them to corefer, thus, the anaphor is c-commanded by the antecedents. The reflexive *aciyele* and the antecedents *Esheli'ia* both agree in number and person. The data presented in the examples above show that double antecedent played a significant role in Kambari language. Most of the antecedents are fused with their determiners in contrast to what obtains in some human languages. Again, more often than not, accusative pronouns are c-commanded by their antecedents.

The intuition is that anaphors must have a binder that is 'close enough,' while pronouns may not have a binder that is 'too close,' the definition of binding simply adds co indexing to the C-command relation. The classical definition of binding apparently aims to establish a subset of coreference relations, namely, the set of coreference relation involving c-command. Coindexing is marked by subscripts which indicate that the two NPs refer to the same entity. The local domain relevant to the principles of the binding theory is defined in various ways. The core intuition appears to be that 'domain D' is the minimal maximal projection dominating the anaphor/pronoun that contains either *tense* or a subject. Binding is defined as in (35) (Chomsky 1981:184):

(35) α BINDS *ß*iff and only iff:
a.) α c-commands *ß*, and
b.) α and *ß* are coindexed.

(36) Wu$_i$unata**Langashi$_j$**.
S/he kill.Pst. CM Langashi
'S/he killed Langashi'.

It therefore follows that a parallel occurrence obtains in (36) which depicts a c-commanding relation between *wu* and *Langashi*, in both cases the entities refer to disparate individuals. The governing category is a local domain which denotes the minimal category which contains both a subject and the governor of the element in question. This minimal category is usually a finite IP or an NP containing a possessor (which qualifies as the subject).

(37) a) **Peshe$_i$**damma ta**u$_i$**takamba
Peshe say.pst.CM 3.sg.nom. will.pst. go back
'Peshe said she would go back'
b) ***Peshe$_i$**damma ta**yi$_i$**takamba
Peshe say.pst.CM 3.sg.acc.will.pst.go back
*'Peshe said her would go back'

The principle of the binding theory describes the interpretation of the bold NPs in (37) above. In (37a), *Peshe* binds *u*, and subject to requirements of principle B of the binding theory. There is an agreement between the antecedent *Peshe* and its pronoun *u*. Unlike the ill-formed construction in (37b), there is a violation of principle B where the antecedent and the pronoun do not agree. The accusative pronoun *yi* did not conform to the agreement requirement with the antecedent of the pronoun *Peshe*.

(38) α GOVERNS ßiff:
a). α is a head [±N,±V] or $I_{[+fin]}$ or $C_{[for]}$, and
b). α M-commandsß, and
c). every XP (other than IP) that dominates ß also dominates α.

The salient features of Kambari NPs have been established vis-à-vis its areas of NP types and their properties. In a table, we showed the reflexives of Kambari language and its possible gloss. Kambari has only one form of anaphoric element: reflexive. We equally observed that Kambari reflexives arebimorphomic: *self* + *accusativepronoun*. A table further shows Kambaripronominals in its nominative and accusative forms. One other feature evident in the table is that second person pronoun (singular and plural), both nominative and accusative inKambariexhibit morphological change, and above all, Kambarilack gender distinction.

4.0 Concluding Remarks

In conclusion, the study makes the following findings: Kambari reflexives are bimorphemic: self + accusative pronoun. Kambari reflexives only agree with their antecedents in person and number because they lack gender distinction. Kambari exhibits a form of double antecedent and the antecedents must agree in number and person. The morphology of Kambari allows a determiner to be fused with the root word of the noun. There are two distinct elements of 3rd person singular nominative form in Kambari: *wu* and *u*, and two plural accusative forms: *a*and*e*. *Wu* and *e* comes before a verb that begins with a vowel sound, while *u* and *a* comes before a verb that begins with a consonant sound. There are three distinct elements of 1st person singular nominative form in Kambari: *n/me/amu*. Here, *me/amu* comes before a verb that begins with a vowel sound while *n* comes before a verb that begins with a consonant sound. This is a clear phonological contrast between Kambari and some other human languages. There are three distinct elements of 2nd person nominative pronoun in Kambari: *mu/avu/vu* which all comes before a verb that begins with a vowel sound, a clear contrast in phonology too. Real names and other Full NP types pattern the same way in Kambari and some languages of the west, most especially English language. Kambari language exhibits an SVO word order and/or structure. The nature of Kambari nouns and determiners, why they are fused together and the reason behind different forms of determiners, are issues to be investigated further. Other issue that deserves further investigation includes the issue of double antecedent.

Table 1: The table below demonstrates Kambari reflexives and its gloss:

KAMBARI	GLOSS
aciyava	'myself'
Aciyatsu	'ourselves'
Aciyayi	'himself/ herself'
Aciyele	'themselves'
aciyawu	'yourself'
aciya]u	'yourselves'
aciyele/'yuwalai	'each other'
aciyatsu	'one another'

Table 2: Below are the pronominals in Kambari and its gloss:

KAMBARI				GLOSS	
NOMINATIVE FORM					
Singular		Plural		Singular	Plural
n, me, amu		tsu	1st i	we	
mu/avu/vu		a]u		2nd you	you
wu/ u	a/ e		3rd	he/she/it	they
ACCUSATIVE FORM					
Singular	Plural			Singular	Plural
mu	tsu	1st	me	us	
wu	]u	2nd		your	your
yi	le/ ele	3rd		him/ her	them

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