

LEKUWA DP: A MINIMALIST ANALYSIS

Thierry TSONO MOWELLE

Department of Foreign Modern Languages
 Marien Ngouabi University, Congo/Brazzaville
tmtmowelle@gmail.com

Abstract: The purpose of this paper is to study the DP in Lekuwa within the framework of the Minimalist Program. It is demonstrated that the DP and the TP in Lekuwa are headed by a functional category, namely AGR and its lexical instantiations (i.e. demonstrative, possessives, numerals and some quantifiers). The agreement within the DP and TP is proved to hold in a Spec-head configuration. Like the subject which moves to Spec, TP to check its nominative Case, the noun also raises from its base-generated position to Spec, DP to receive its genitive Case from AGR and be assigned Agent theta role by the maximal-category predicate NP. It is also proved that definiteness and indefiniteness are expressed in Lekuwa, even though it does not have definite and indefinite article.

Keywords: DP, TP, Nominative and genitive Case, Minimalist Program, functional category

LE DP LEKUWA: UNE ANALYSE MINIMALISTE

Résumé: Cet article a pour but d'étudier le DP en Lekuwa en se basant sur le Programme Minimaliste. Il est démontré dans cet article que le DP et le TP en Lekuwa ont une tête fonctionnelle, à savoir AGR et ses instanciations lexicales (démonstratives, possessives, nombres, et quelques quantificateurs). L'accord au sein du DP et TP est prouvé avoir lieu dans une configuration Spec-Tête. Comme le sujet qui monte au Spec-TP pour recevoir le Cas nominative de T, le nom aussi monte au Spec-DP pour recevoir le Cas génitif d'AGR et être assigné le rôle thématique Agent par le prédicat catégorie-maximale NP. Il est aussi prouvé que les notions de défini et d'indéfini sont aussi exprimées en Lekuwa, bien qu'il ne possède pas d'article définis et indéfinis.

Mots-clés : DP, TP, Cas génitif and nominatif, Programme Minimaliste, tête fonctionnelle

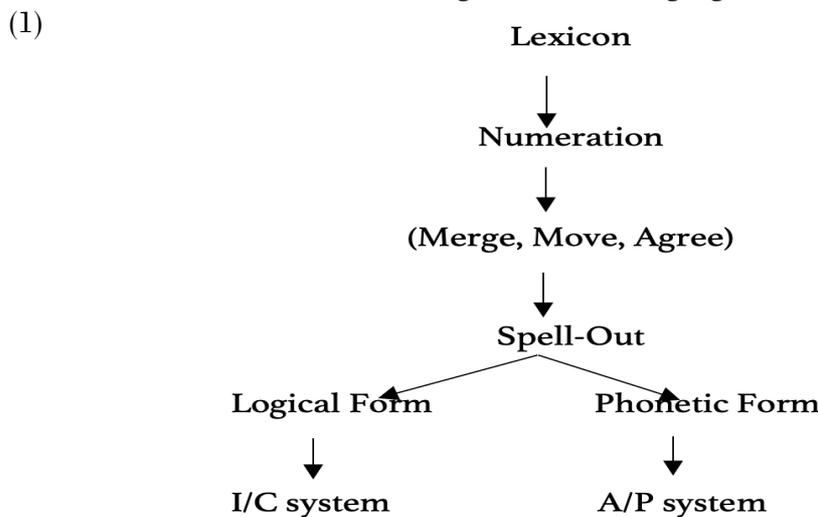
Introduction

This paper attempts to investigate Lekuwa DP within the framework of the Minimalist Program. Some scholars like Bruening (2009) hold that a DP projects only in languages with articles; while others like Veselovska (2014) claim that languages with or without articles project a DP. Thus, Bantu languages even though do have definite and indefinite article can project a DP. I argue in this paper that Lekuwa (C27), a Bantu language of the republic of Congo Brazzaville, has a DP even though it does not have definite and indefinite articles like English. The DP in Lekuwa is symmetric to the TP like in English. This begets the question of the heads of Lekuwa DP, its different constituents and its derivation. Consequently, the way the head AGR and its lexical Instantiations combine with its complements to derive Lekuwa DP, as well as its definiteness and indefiniteness status will be analyzed. This paper addresses the following questions: Is Lekuwa NP headed by a determiner? Is the structure

of Lekuwa DP parallel to that of the sentence? I argue in this paper that Lekuwa NP is a DP headed by AGR and its lexical instantiations, and it is symmetric to TP. It is also assumed in this paper that the definiteness-indefiniteness nature of Lekuwa DP is determined by contexts, demonstratives, possessives, numeral and quantifiers. This paper is structured as follows: section2 gives a general overview of the theoretical framework used in this paper. Section 3 deals with the review of literature. Section4 investigates whether Lekuwa NP is a DP and further, whether the DP and TP in Lekuwa are symmetric. Section5 looks at different heads of the DP in Lekuwa, the agreement within the DP, definiteness and indefiniteness. Section6 concludes the study.

1. Theoretical Framework

The Minimalist Program is the Chomsky’s recent approach to the study of Universal Grammar. Chomsky put forward principles of economy in order to reduce superfluous elements in representations and derivations postulated in his previous theories. The principle of economy which applies to representations is Full Interpretation, and those which concerns derivations are Shortest Move, Fewest Move, Procrastinate and Greed. Out of the four levels of syntactic representation of the previous generative theories, he retained only two, namely Logical Form, which interacts with the Conceptual Intentional System and Phonetic Form which interplays with the articulatory-Perceptual System. Chomsky (1995) divided the language faculty into a lexicon and a computational system also called C_{HL}. The C_{HL} or the Minimalist version of the grammar of a language looks as follows:



2. Review of Literature

This section reviews and discusses relevant primary research literature on DP in English and in Bantu languages, as nothing has been previously said on Lekuwa DP.

2.1. Abney, S.P. 1987. *The English Noun Phrase in its Sentential Aspect.*

His reanalysis of NPs as DPs relies on similarities in AGR, distribution and meaning between sentences and noun phrases. Sentences and noun phrases are parallel in that in Ergative/Absolutive languages ‘[...] a possessed noun agrees with its subject in the same way that the verb agrees with its subject, and the possessor receives the same case as the subject of the sentence’ (Abney 1987:27). With regard to distributional similarity, following

2.5 Discussion

I side with Abney (1987)'s DP hypothesis and Carstens (2008) and Beswati et al (2014)'s claims about the existence of the DP in Bantu languages, but I argue against Carstens (2008)'s view that the noun in the Bantu DP raises to Num⁰ to check its number feature. Bantu nouns are taken from the lexicon with their number feature already valued. Therefore there is no need for them to move to Num⁰ to check number feature. The majority of Bantu nouns are meaningless without their class prefixes, which indicate singular and plural dichotomy, as the ungrammaticality caused by their absence in (4).

- (4) a. mo-tó¹ b. *-tΛ
 1 person
 ‘a person’
- c. lo-boko d. *-boko
 11 arm
 ‘an arm’

I also argues against Beswati et al (2014)'s postulation of many AGRPs in order to accommodate different modifiers of the noun in their Specifiers and allow the noun to move from its underlying position from head to head checking its agreement features with its different modifiers. Such a DP is problematic for two reasons: In Bantu language, the category which triggers agreement should be in Spec, head position. Then, how can a noun which moves from the head of AGRPs which is lower than its specifier trigger agreement to a determiner in that position? and if the noun manages to value the uninterpretable feature of the first determiner, it should cease to be active and so incapable of checking and valuing another determiner uninterpretable feature. Beswati et al (2014) would be right, if they adopted Carstens (2011)'s hyperagreement and hyperactivity theory, which states that gender feature of nouns in Bantu is both uninterpretable and intrinsically valued, and so permits nominals to participate in successive Agree relation (cf. Carstens 2011 for further details). Unfortunately, they do not. I argue in this paper that the noun in Lekuwa raises from its base-generated position to little *n* and from that to D⁰ where it values the uninterpretable features of its different modifiers. Another problem raised by Beswati et al is the fact that they do not provide enough precision on the underlying position of the noun modifiers before their movement to the spec of different AGRPs. In this paper, the noun modifiers are base-generated in the spec of different *n*Ps where they get their uninterpretable features valued. Furthermore, Beswati et al (2014, 2015) say nothing about the assignment of genitive and case features within the DP, while in this paper this matter will be examined. Although Ekegusii and Lekuwa share some similarities, namely the agreement within the DP and the TP and the fact that in both languages a demonstrative and a possessive can co-occur in the same DP with sentential meaning, they also vary in that the genitive morpheme or preposition in Ekegusii is mainly the concordial prefix of the possessed noun; while in Lekuwa is not only a concordial prefix, but also the association of concordial prefix and the morpheme – *me*. For these reasons, I claim that the analysis of Lekuwa DP is worth being carried out, even though it is not different from Ekegusii DP. I believe that the DP is an integral part of

¹ In the gloss the class of each Bantu noun will be indicated by a figure under its class prefix. In (11) above, the figure 1 points out that the noun mo-tó belongs to the class 1 mo.

any language. Thus, its analysis makes a significant contribution to the study of Lekuwa syntax.

3. Lekuwa DP

This section investigates whether the Lekuwa NP is a DP and further, whether the TP and DP are symmetric in Lekuwa. It also addresses the issues of the DP head. The resulting structure will be represented by a tree diagram.

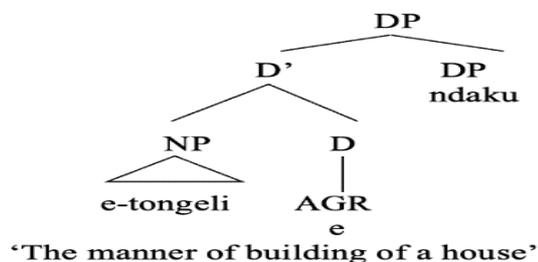
3.1 Lekuwa NP as a DP

The NP in Lekuwa, like the sentence, can be headed by the functional category Infl or a lexical determiner. Like in Turkish, a possessed noun in Lekuwa agrees with its subject in the same way that the verb agrees with its subject, and the possessor receives genitive Case, instead of nominative Case like in Hungarian, as illustrated in (5).

- (5) a. *Lomboto a-tóngi ndáku*
 Lomboto SM NPST build 9house
 ‘Lomboto has built a house’
- b. *e-tóngeli e-ndáku e-me Lomboto*
 7 manner of building AM-ASM Lomboto
 ‘Lomboto’s manner of building of a house’
- c. *e-tóngeli e-ndáku*
 7manner of building AM house
 ‘The manner of building of a house’

AGR in the TP (5a) is indicated by the SM *a*, whereas in the DP (5b) is shown by the agreement marker *e*. The subject *Lomboto* in (5b) receives his genitive Case from the genitive *e-me*, and it is assigned Agent theta role from the NP *e-tongeli* (the manner of building). The genitive is composed of the agreement marker and the associative morpheme as in (5b) when the possessor is human. But, when possessor or the modified noun is non-human the genitive marker is indicated by the agreement marker of the possessed noun. In Lekuwa, it is the possessor, instead of the possessed noun as in Turkish and Hungarian, which takes the agreement marker of the possessed noun. Taking Abney (1987)’s DP hypothesis into account, AGR or Infl in Lekuwa possessed NP would occupy the D position, and the possessor would be in the Spec, DP, as witnessed by the T diagram of (12b) in (6):

(6)



The genitive phrase in English appears on the left of the noun possessed; while in Lekuwa it appears on the right of the possessed noun. Lekuwa structure of the DP with a possessed NP is similar to that of Romance or that of English DP containing *of phrase*, shown in (7).

Italian

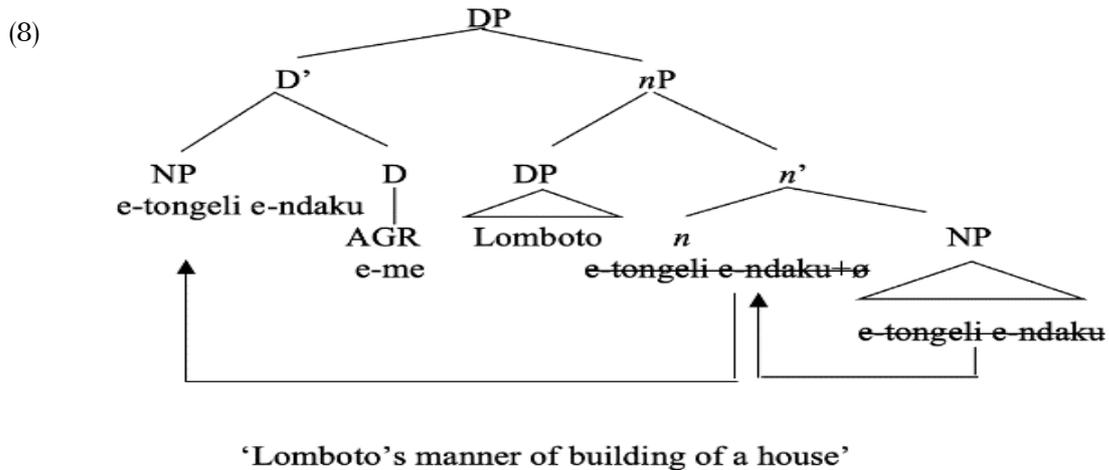
- (7) a. L'opinione di Maria di Gianni
The opinion of Mary of John
'Mary's opinion of John'

Johnson (2004:155)

French

- b. La fortune de papa
The fortune of father
'Father's fortune'
- c. The leg of the table

Giorgi and Longobardi (1991) suggest that the different position of the specifier in Romance and English is caused by the movement of noun in Romance. Bernstein (1993) argues that the landing site of this movement in French is Num⁰. Carstens (2008) analyzes the Bantu DP made the same conclusion. This infers that that the position of the genitive phrase in (5b) is caused by the N-raising to D⁰. As nouns in Bantu come from the lexicon with their number feature already checked and valued; I hypothesize that the noun is attracted by the strong feature on the little *n* raises and adjoins to it, and finally the resulting complex noun raises to Spec, DP to check its determiner (i.e.person) feature, as, as the structure of the derivation of (5b) witnesses in (8).



3.2 Lekuwa DP heads

The DP in Lekuwa, like in English, has different types of heads, namely demonstratives, possessives, some quantifiers and numerals. But, unlike English, there is no definite and indefinite article in Lekuwa. Definiteness and indefiniteness in Bantu is a question of interpretation and context in most cases (Riedel 2009:48). In this section, I shall discuss about definiteness and indefiniteness in Lekuwa.

-Definiteness in Lekuwa

Definiteness can be defined as the description of a noun or NP as ‘being uniquely identifiable or familiar to the hearer’ (Ward and Birner 1995). In English, the use of the article *the* for instance presents the description as sufficient to distinguish the referent from everything else. However, in Lekuwa as there is no article, the definite reading is provided

in different ways: generally, any word used in a Lekuwa discourse, without a quantifier or a numeral which marks it indefinite, is definite, as illustrated below:

- (9) a- Le-ngolo le-mongá b- Le-ngoló lo-ko le-mongá
 5 mango 5AM ripe 5mango AM one AM ripe
 ‘The ripe mango’ ‘One/a ripe mango’

-The uniqueness of the referent of a noun. That is, a noun is definite if it is unique in its kind as in (10).

- (10) Mo-kolo ‘the night’
 Mwese — ‘the sun/the daytime’
 Sandza ‘the moon’
 Mbula ‘the rain/the year’

-the context can provide further implicit information that supplements the uniqueness of the referent. I shall not deal with this in this paper, since it is out of its scope. In addition to these ways, demonstratives, possessives pronouns and relative clauses are also used in Lekuwa to mark an NP as definite. Thus, the following sections will look at the way these determiners convey the definite meaning to an NP in Lekuwa.

-Nouns marked definite by demonstratives

Demonstratives (DEM) are ‘items whose function is to point to an entity in the situation or elsewhere in a SENTENCE’ (Crystal 2008:135). They are definite determiners because they refer to things which are known and specific. Demonstratives always precede the noun they mark definite, as in (11).

- (11) Lo-boko lo-kú
 14 hand 14DEM
 ‘That hand’

Demonstrative determiners are identical to the agreement markers (AM) of the noun they determine, with the exception of singular nouns of the classes 1/2, 7/8 and 9/10 whose demonstratives are different from their AMs. They have two references: near and far. The far reference is obtained by adding *mpe(na)* or *ku* to the near reference. The demonstrative with near reference is composed of the agreement marker of the determined noun and the optional morpheme *-beni* as exemplified in (12) above.

- (12) a. Mo-tó yo-(beni) b. ba-tú ba- mpe(na)
 1 person DEM2 person 2AM DM
 ‘This person’ ‘Those persons’

The Lekuwa DP (12a) headed by a demonstrative will generate the following structure:

- (13)
- ```

 DP
 |
 D'
 / \
 N D
 Mo-tó yo-(beni)
 Man this
 ‘This man’

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*-NPs marked definite by possessive determiners*

Possessives are words which are used to express ownership. Like demonstratives, possessives refer to things which are known and specific. They precede and agree in class and number with the noun they mark definite, as exemplified below:

- (14) a. Mwana o ngái  
           1child AM I  
           ‘My child’ ‘Your sibling’
- b. Mo-limu                   o -binu  
               1 younger sibling   AM you
- c. Ndáku   e -me    mama  
               9 house   AM Gen M   mother  
               ‘Mother’s house’

In Lekuwa possessive determiners can be formed either by connecting an agreement marker of the possessed thing to a personal pronoun as in (14a and b) or by coupling the agreement marker of the possessed thing with the associative morpheme *me* as in (14c) when the possessor is a noun. I dub the couple *e-me* the genitive marker (Gen M), since it expresses the relationship between the thing possessed and the possessor. The structure for Lekuwa possessed nominal phrase is shown in (6) above. Unlike in English, possessives in Lekuwa are not in complementary distribution with other determiners, since they co-occur with other determiners, as shown in (15).

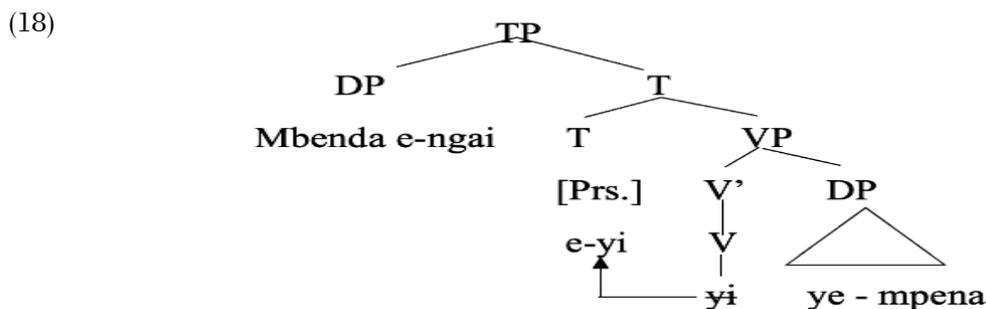
- (15) . Mbenda e-ngái ye-mpena  
           9 calabash 7AM I DEM  
           \*‘That my calabash / that calabash of mine’

The co-occurrence of possessives with other determiners deprives them from the status of determiners. They are considered as specifiers of DPs. This co-occurrence of possessives and determiners in Lekuwa can be accounted for by the fact that the DP (15) is normally a clause in which the finite copula *yi* (be) is dropped. In such context,

(16) would be normally as bellow:

- (17) Mbenda e-ngai e-yi ye-mpena  
           9 calabash 7AM I 7AM be DEM  
           ‘That calabash is mine/That is my calabash/ My calabash is that’

In the light of what precedes, I propose that (16) is a TP whose head is a null T. Thus, the structural representation of (16) will be as follows:



If the possessive determiners cannot co-occur with other determiners in English, however other determiners can, as illustrated in (19).

(19) a. All the many disappointments

b. The few good ideas

Newson et al.(2006:62-63)

Phrases with multiple determiners can also be found in Lekuwa, as shown in (26).

(20)a. Ba-na ba- yawu ba-ntso ba- neyi

2 child 2AM you 2 all 2AM four

‘ All your four children/ all of your four children’

b. Me-kolo me-ye me-satu me-yambu

3 day 3 AM he 3AM three 3AM first

‘ His first three days’

#### - Indefiniteness in Lekuwa

By contrast to a definite noun, an indefinite noun is not unique in its kind, and the context fails to provide implicit information that would supplement it to the point of uniqueness. Indefiniteness in Lekuwa is conveyed through the use of the numeral *oko*(one) and some weak quantifiers such as *sisu* (other, some), *ndambu* (some, few, a little), *esuka* (each), *e-pisi* (a little) and *nkiki* (few, a little).

#### *NPs marked indefinite by numerals and quantifiers*

Cardinal and ordinal numerals and quantifiers are used in Lekuwa to mark nouns indefinite. Although many linguists like Abney (1987), Szabolcsi (1991) consider quantifiers as a subclass of adjectives, in this paper they are not only determiners, but also adjectives. Cardinal and ordinal numerals always follow the noun they determine, and agree in class and number with it, as (21) illustrates.

(21) a. Mo-tó m-oko

1 person 1AM one

‘One person’

b. Ba-tú ba-bale

2 person 2AM two

‘two persons’

The position of quantifiers varies in that they are pure or derived quantifiers. Pure quantifiers precede or follow nouns they mark indefinite. The quantifier *e-pisi* (a little) and *esuka* (each) always follow them, as exemplified below:

(22) a. Ba-tú ndambu

2Person some

‘Some persons’

b. ndambu e-mo-ka

7 little 7AM 3 salt

‘A little salt’

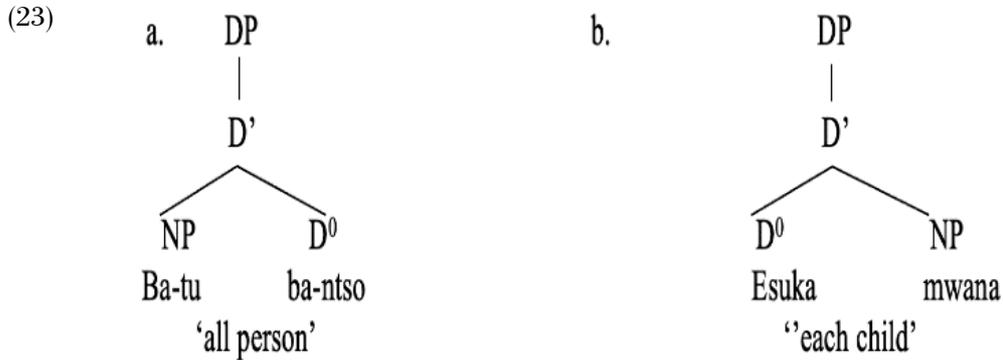
c. Esuka mwana

‘Each child’

As for derived quantifiers, they always precede nouns they mark indefinite, as shown in (23).

- (23) a. Ba-tu ba-ntso                      b. Mo-ka mo-nkiki  
           2 person 2AM all                      3 salt 3AM a bit  
           ‘All persons’                              ‘A bit of salt’

Given the fact that quantifiers in Lekuwa are prenominal and postnominal, the DP structure of (23 a) and (23b) will be as shown in (23a) and (23b) respectively.



Börjars et al (2010) and Newson et al (2006) consider quantifiers and numerals which follow other determiners in English as APs. They base their claim on the following reasons: as members of the same category, they should be in complementary distribution, but they are not; as post-determiners, they look as if they are complements of determiners they follow. By contrast, DP complements are always NPs, and finally numerals and some quantifiers like *many*, *few*, and *all* are APs may be modified by degree words as thematic adjectives as in (24).

- (24) a. his [AP very few] good ideas  
       b. my [AP not so many] disastrous parties

Newson et al. (2006: 144)

- (25) The very first man on the moon

Börjars and  
 Burridge (2010:175)

As for pre-determiners, Newson et al (2006) argues that they are determiners that introduce a DP that has an NP with an empty head and an optional *of*, as seen in (26).

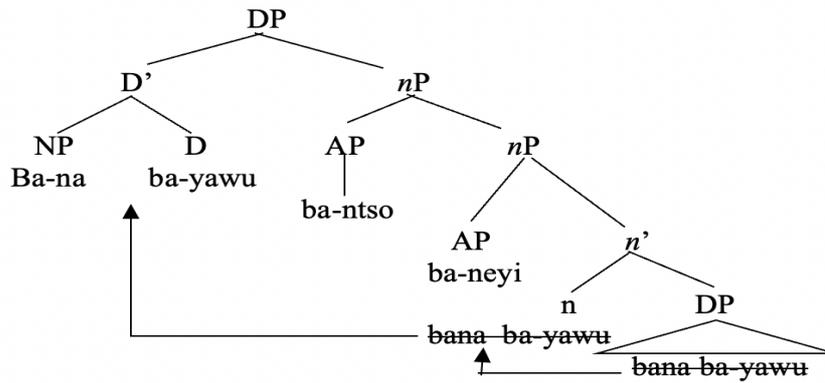
- (26) All (of) the people                      Newson et al. (2006:145)

The existence of the optional *of* in (26) is provided by the fact that a DP complement to a noun is always introduced by *of*, as illustrated below:

- (27) The door of the house

Following Börjars et al (2010) and Newson et al (2006), I argue that true determiners in Lekuwa are demonstrative, possessives, and some quantifiers like *sisu* (other, some), *esuka* (each), *e-pisi* (a little), and *ki* (few, a little). Quantifiers like *ntso-* (all, every), *ndambu* (some), *yiki* (many) and numerals are adjectives when they follow other determiners. Therefore, the T diagram of the DP (20) above will look as follows:

(28)



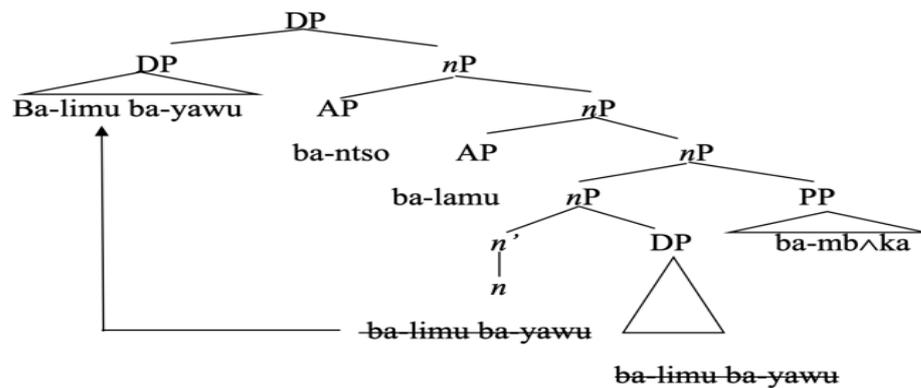
In Lekuwa, like in other Bantu languages, determiners, adjectives and PPs follow the noun they determine or modify, as illustrated in (29) below:

(29) a. Ba-limu      ba-yawu    ba-ntso    ba-lamu    ba mboka  
 2 younger sibling 2AM-you 2AM-all2 AM-good 2AM village  
 ‘All your good younger siblings of the village’

b. Ba-tu      ba-ku    ba-satu    ba-sanda  
 2 person 2 DEM 2AM three 2AM tall  
 ‘Those tall three persons’

Contra Beswati et al (2014, 2015) who argue that the noun lower in the tree moves from head to head to D<sup>0</sup> agreeing gradually with its different determiners and modifiers, I argue that the noun which is base-generated as the sister of the verb moves from that position to D<sup>0</sup> to check its determiner (i.e. person) feature. From this landing site, it triggers its agreement on its determiners and modifiers, as shown in (30).

(30)



**Conclusion**

In this paper, I have looked at Lekuwa DP. First, I have given readers an overview of the DP hypothesis. Instead of the lack of definite and indefinite articles, definiteness in Lekuwa is expressed by means of possessives, demonstratives, and the uniqueness of the referent of the noun, which forestalls a definite description, while indefiniteness is determined by numerals and quantifiers. It is assumed that different head of a functional category should be in complementary distribution. Unfortunately, demonstratives and possessives in Lekuwa can co-occur. I have argued that DPs in which these two determiners

co-occur are in reality clauses with null T. It has been demonstrated that modifiers and determiners in Lekuwa follow the noun they determine or modify. The parallel between the sentence and the DP has also been established. The symmetry between the sentence and the DP in Lekuwa resides on the following facts: Both are headed by a functional category, namely T for the sentence and D for the DP, The agreement within the sentence and the DP holds in a Spec-head configuration. Like the subject, the noun raises from its base-generated position to Spec, DP to check its determiner feature and control agreement, The little *n* in the DP, like its counterpart the little *v* assigns the agent role to the argument in Spec, *nP*, while the NP assigns the Theme role to the argument in its specifier position.

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