

The Determiner Phrase Internal Structure in ngômbà

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Abstract

This paper investigates the internal structure of the Determiner Phrase (DP) in ngômbà, a Grassfields' Bantu language spoken in Cameroon, Central Africa. It is argued in this paper that ngômbà exhibits a head first structure and the surface order of D-elements is the mirror image of their merged order. This linear order is derived via successive roll-up movements of the different DP internal constituents. The determiner or determiner-like units of language are generated in a position to the left of the head noun and the demonstrative determiner occupies the head D of DP. To account for the derivation and the agreement relation between the proximate (PROX) or the distal (DIST) particles, I postulate for the existence of a functional projection (FP) headed by the PROX/DIST particles above NumP. When the noun and the head of FP merge, the noun phrase is moved to Spec-FP and the agreement relation between the noun and the PROX/DIST particles is established under Spec-Head configuration. With regard to the number morphology, I assumed that the number prefix occupies the head of the functional projection NumP located above NP. When the demonstrative and the possessive co-occur in within the DP-complex in ngômbà, the linear order is derived via successive roll-up movements. The noun first merges with the number prefix to form NumP; when NumP merges with the possessive phrase, NumP moves to Spec-PossP; after, when PossP merges with the functional projection heading the proximate or the distal particles, PossP also moves to Spec-FP and finally, when FP merges with DP, FP in turn moves to Spec-DP to yield the right linear order.

Keywords: Bantu Language, ngômbà, Determiner Phrase, Roll-up Movement, Number Phrase

1. Introduction

This paper investigates the structure of DP in ngômbà, a Grassfields' Bantu language spoken in Cameroon, Central Africa, and proposes an account of the structure of the DP-internal constituents. It is argued in this paper that ngômbà exhibits a headfirst structure and the surface order of D-elements is the mirror image of their merged order. This linear order is derived via successive roll-up movement of the different DP internal constituents. The paper is organized as follows: section two presents the base structure of DP in ngômbà; section three focuses on the distribution of demonstrative determiners; section four on number-marking and DP structure; section five on the distribution of possessive determiner and section six concludes the paper.

2. The Base Structure of DP in ngômbà

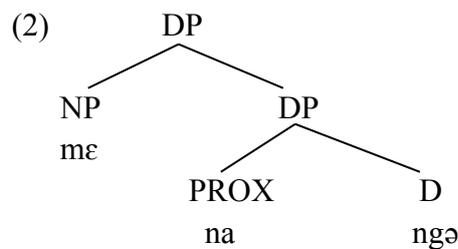
This section focuses on the underlying position of elements that could be thought of as expressing D relative to the noun and other constituents of the DP in ngômbà. It is argued in this section that determiners or determiner-like Units of Language (UoLs) are generated in a position to the left of the head noun. This proposal supports the claim that the DP in ngômbà is head-initial and is consistent with the analysis of the DP in related Bantu languages such as Kiswahili (Carstens 1991); Medumba (Kouankem 2012, 2013); Nweh (Nkemnji 1995); Bafut (Tamanji 1999) and Tuki (Bilola 2013). But the surface order of elements in the DP system in ngômbà shows the noun in initial position followed by the determiner. The examples in (1) below illustrate this word order. The demonstrative determiner is used in these examples, as pure determiners (articles) are not attested in this language.

- (1) a. m-ε na ngə
 SG-child 1PROX DEM
 “This child”
 b. mətwa na ngə
 ø-car 1PROX DEM
 “This car”
 c. pusi na ngə
 ø-cat 1PROX DEM
 “This cat”

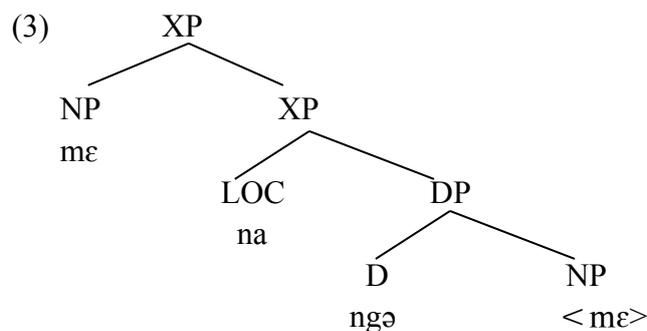
In the above examples in 1a, b and c, we realized that the language exhibits the order Noun-Determiner. The proximate particle shows the position of the designated element relative to the discourse participants. Although one might argue for a head-final structure in this context, it is proposed in this paper that the language uniformly manifests head-complement structures. This is to say that the asymmetry head-complement and complement head that the language exhibits does not reflect the internal structure of DP in the language. So, the word order variation arises from the interaction between leftward complement movement and head movement. Therefore, the ngômbà language provides empirical evidence for Kayne's (1994) linear correspondence axiom (LCA):

Let X, Y be non-terminals, and x, y terminals such that X dominates x and Y dominates y . Then if X asymmetrically c -commands Y , x precedes y . (Kayne 1994: 33)

If the head-final sequence is assumed to be the underlying order in the language, therefore, no movement transformation is needed to derive the surface linear order as illustrated in (2). In this structure, the different constituents of the DP are directly generated in their surface position.



If the head-initial sequence is assumed, therefore, leftward movement of the noun to the left of the determiner is required as shown in (3):



The question that arises here is whether the noun moves to Spec, DP, adjoins to DP or moves to a position above DP. Second, what is the position of the proximate particle relative to D? In order to get a clear picture of this, the status and distribution of D-elements need to be presented.

3. The Distribution of Demonstrative Determiners

D-elements in ngômbà follow the noun in N-D sequence. Contrary to other Grassfield's Bantu languages (Medumba, Kouankem 2012, 2013) whereby depending on the semantic interpretation of the utterance, some determiners can precede the noun, the word order is rigid in ngômbà and no D-N sequence is attested. In D-N contexts, one gets the contrastive focus interpretation (and the determiner is said to be focused (Bilola 2013)). In ngômbà, a given noun can take two determiners in the following order: N – Possessive Determiner – Demonstrative Determiner. Note that there are also the proximate and distal particles that co-occur with the determiners. The question that arises is how is the DP structured in this language?

The demonstrative determiner follows the noun in ngômbà. Unlike possessive determiners, the presence of the proximate or distal particle is mandatory in structures exhibiting a demonstrative determiner as illustrated in (4). These particles provide information about the

entity the discourse participants are talking about, the distance between them and the entity, and the location of the entity. The proximate particle *na* indicates that the entity it refers to is close to the speaker; the proximate particle *nɔ* indicates that the entity it refers to is close to the addressee whereas the distal particle *ne* indicates that the entity it refers to is far from the speaker and the addressee. Notice that the absence of these locative particles leads to ungrammatical constructions (4d).

- (4) a. m-ε na ngə
 SG-child 1PROX DEM
 ‘This child’
- b. m-ε nɔ ngə
 SG-child 2PROX DEM
 ‘That child’
- c. m-ε ne ngə
 SG-child DIST DEM
 ‘That child’
- d. *m-ε ngə
 SG-child DEM

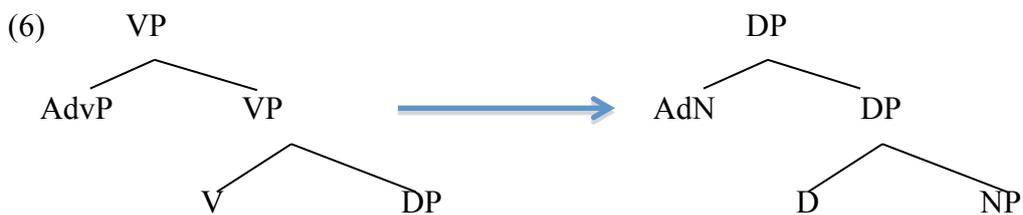
Under standard assumptions, DP is the projection of the demonstrative determiner. So, in this paper, I assume that the demonstrative determiner occupy the head D of DP. The question that arises at this level is what is the position of the proximate and distal particles as they occur between the noun and the demonstrative determiner? In Medumba, another Grassfields’ Bantu language, the proximate and distal particles also called the locative reinforcers occur in final position as shown below:

- (5) a. bà? y-ân lì (NS)
 house AGR-this here
 ‘this house’
- b. tântsə y-ân lá (NL)
 calabash AGR-that there
 ‘that calabash’
- c. fù s-ân dín (FSL)
 medicine AGR-that there
 ‘that medicine’

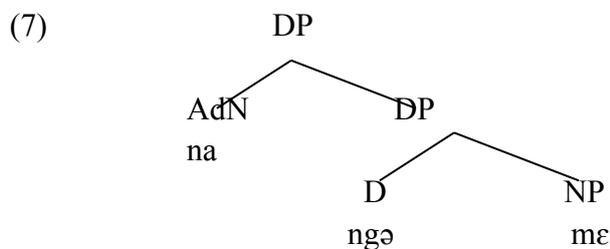
(Kouankem 2013, examples 4a,c,e)

The Medumba particles *lì*, *lá* and *dín* in the above examples play the same role as the ñgêmbaè *na*, *nɔ*, *ne*. They respectively indicate whether the entity they refer to is close to the speaker (NS or 1PROX), the listener (NL or 2PROX) or is far from either (FSL or DIST). To solve the question relative to the position that the proximate and distal particles occupy within the DP structure in other Bantu languages like Medumba and Tuki (Bilola 2013), it has been proposed that those particles can be treated as adverbs that are right adjoined to DP. The intuition behind this proposal is that these kinds of adverbs used to behave as plain adverbs

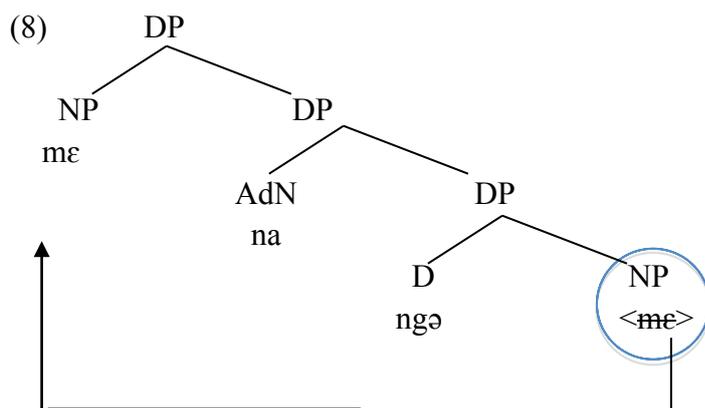
and were originated and adjoined in the VP domain. Due to a kind of grammaticalization process, they surface nowadays in the DP domain and behave as adnominals (AdN).



Contrary to other Bantu languages like Medumba or Tuki where the locative reinforcer (proximate and distal particles) is right adjoined to DP, one can assume that in ngômbà, given the linear order, the proximate and the distal particles are left adjoined to the DP. Since we adopted the Spec-Head-Complement analysis in this paper, the merge order of the determiner, the noun and the proximate and distal particles within the DP in ngômbà can be represented as follows:



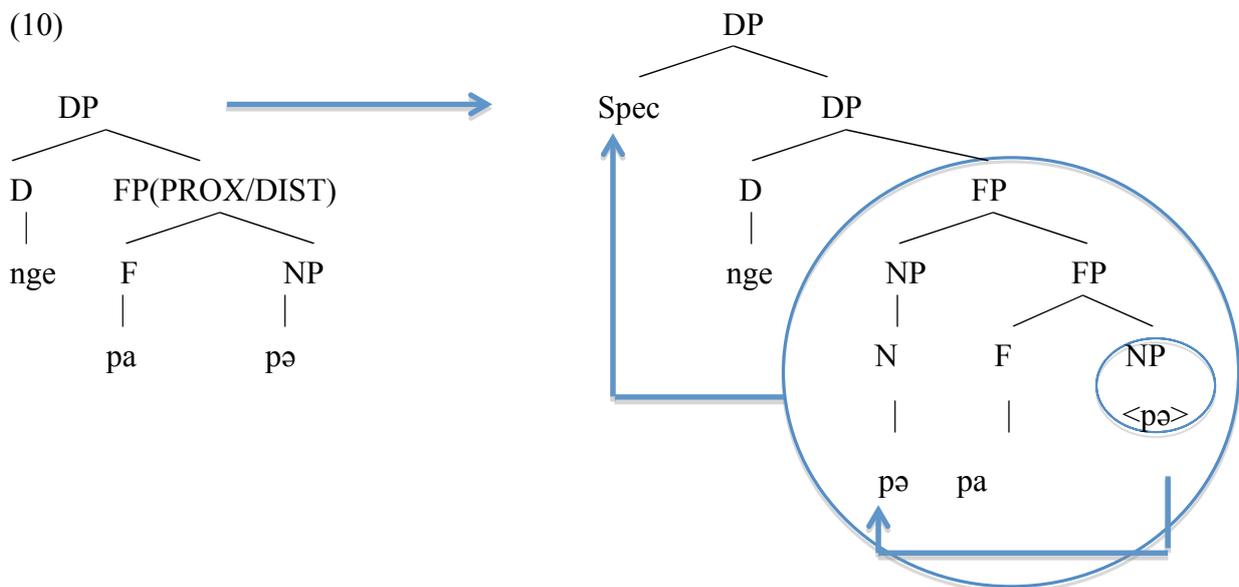
The word order on this tree representation in (5) is not the correct one attested in the language. The correct word order is N - PROX/DIST - D. To derive it, the noun has to move to a higher position. The only available one is Spec, DP since D is already occupied by the demonstrative determiner. The PROX/DIST particle is adjoined between Spec-DP and D:



Although the movement of the NP to Spec, DP and the left-adjunction of PROX/DIST particle to DP makes it possible to derive the word order N - PROX/DIST - D in ngômbà, this structure is problematic because contrary to Medumba or Tuki, the proximate and distal particles agree in phi-features with noun as shown below:

- (9) a. p-ə p-a ngə
 PL-child PL-1PROX DEM
 “These children”
 b. p-ə p-ɔ ngə
 PL-child PL-2PROX DEM
 “Those children”
 c. p-ə p-e ngə
 PL-child PL-DIST DEM
 “Those children”
 d. *p-ə na ngə
 PL-child 1PROX DEM

Given the above paradigm, one will find it hard to account for the agreement relation between the proximate and the distal particles and the noun if they are treated as modifiers adjoined to DP. To account for this agreement relation, I postulate for the existence of a functional projection (FP) headed by the proximate or the distal particles above NP. When the noun and the head of FP merge, the noun phrase is moved to Spec-FP and the agreement relation between the noun and the PROX/DIST particles is established under Spec-Head configuration. After the movement of NP to Spec-FP; FP is subsequently rolled-up to Spec-DP as represented below:



4. Number-Marking and DP Structure in ngômbà

So far, the basic structure of the DP in ngômbà containing a noun and a demonstrative has been presented. There seems to be other essential morphological clues embedded in the noun which call for a review of the above basic structure of DP. One of these elements is the number morphology. The morphology of nouns in ngômbà shows a pairing between singular and plural nouns. Singular nouns take either the nasal prefix or the null prefix. With regard to the nasal prefix marking singular, it is very restricted in the language and show up only with

few nouns.

- (11) a. m-ε b. p-ə
 SG-child PL-child
 “child” “children”

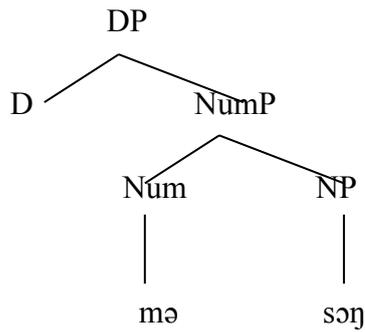
This *m/p* contrast is similar to the noun class prefixes of class 1 and class 2 found in classical Bantu languages. It is worth mentioning that contrary to classical Bantu languages with a rich noun class system, most of the Grassfields' Bantu languages have lost the noun class morphology they once shared with other Bantu languages (Hyman 1970). I assume that this *m/p* singular/plural contrast found in ngômbà is some relics of the noun class prefix, namely class 1 and class 2 of that they once shared with the Proto-Bantu.

As far as other plural nouns are concerned, they take the plural prefix *mə* and a null morpheme in singular. The examples below show the singular plural pairing in ngômbà:

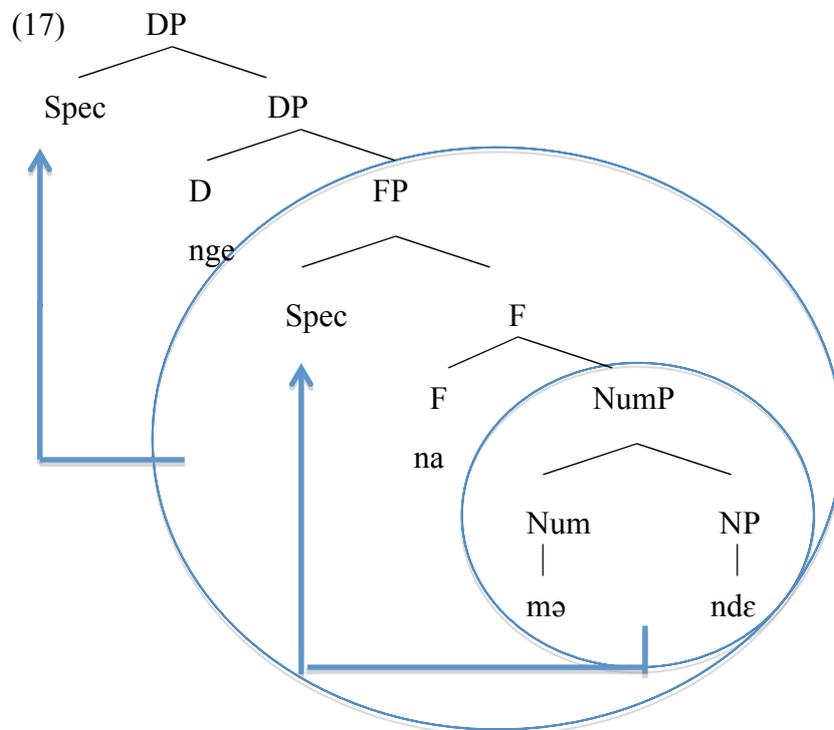
- (12) a. po b. mə-po
 ø-hand PL-hand
 “hand” “hands”
- (13) b. k^ho b. mə-k^ho
 ø-foot PL-foot
 “foot” “feet”
- (14) a. ndε b. mə-ndε
 ø-house PL-house
 “house” “houses”
- (15) a. toŋ b. mə-toŋ
 ø-ear PL-ear
 “ear” “ears”

The question that arises at this level is how to represent the number prefix within the DP structure. This calls for the need of more functional projection in the DP system. Carstens (1991, 2010) argued for a functional projection within the DP that hosts the number features. This projection has come to be known as Number Phrase (NumP) and has been adopted in many literatures on DP across Bantu languages. Following this proposal, it is also argued in this paper that the number prefix occupies the head of the functional projection NumP located above NP as illustrated below:

- (16) mə-səŋ.
 PL-tooth
 “tooth”

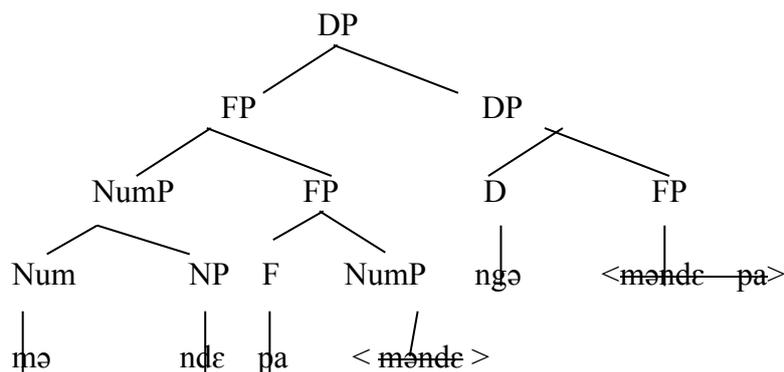


The above structure implies that DP does not immediately dominate NP and that there are more functional projections above NP. Following this modified DP structure, the noun first merges with the number prefix. After, NumP moves to Spec, FP before the latter is rolled-up to Spec-D as shown below:



The different movement of elements within DP makes it possible to get the linear in ngɛmbà.

- (18) mə-ndɛ p-a nge
 PL-house PL-1PROX DEM
 “These houses”



5. The Distribution of Possessive Determiners

The possessive determiner occurs in two different structural positions in ngêmbà. In post nominal position, the possessive determiner is neutral whereas in post nominal position, the possessive determiner is emphatic and expresses contrastive focus. With regard to number, contrary to the demonstrative determiner which does not agree in number with the head noun, possessive determiners agree with the possessed element. The singular form takes the null prefix singular concord and the plural form takes the nasal prefix concord.

Post-nominal possessive (neutral)

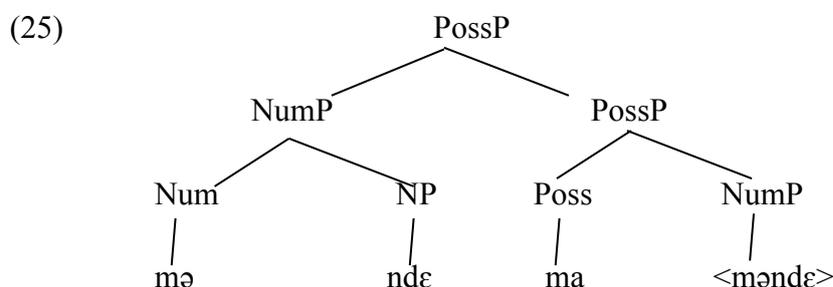
- (19) a. ndɛ à b. mə-ndɛ m-a
 ∅-house ∅-1POSS PL-house PL-1POSS
 “my house” “my houses”
- (20) a. ndɛ ò b. mə-ndɛ m-ɔ
 ∅-house ∅-2POSS PL-house PL-2POSS
 “your house” “your houses”
- (21) a. ndɛ i b. mə-ndɛ m-i
 ∅-house ∅-3POSS PL-house PL-3POSS
 “his house” “his houses”

Pre-nominal possessive (emphatic)

- (22) a. w-à ndɛ b. m-a mə-ndɛ
 ?-1POSS ∅-house PL-1POSS PL-house
 “my house (not yours)” “my houses (and not yours)”
- (23) a. w-ò ndɛ b. m-ɔ mə-ndɛ
 ?-2POSS ∅-house PL-2POSS PL-house
 “your house (not mine)” “your houses (not mine)”

- (24) a. w-i nde b. m-i mə-nde
 ?-3POSS ∅-house PL-3POSS PL-house
 “his house (not mine)” “his houses (not mine)”

When we compare the above examples, two word orders emerge. The neutral possessive reading exhibits the N-POSS order whereas the emphatic or contrastive focus reading exhibits the POSS-N order. The question of with distribution is the merge order of possessive determiners within DP is an important one as far the distribution of possessive determiners relative to other D-elements is concerned in ngômbà. In this paper, I assume that the merge order is POSS-N and the Possessive Phrase (PossP) dominates NP. In neutral context, the noun first merges with the number marker and when the derivation reaches PossP, NumP moves to Spec,PossP and the surface order N-POSS is derived:



In case of contrastive focus reading, I assume that the possessive determiner moves to a higher position outside the DP. This position is argued to be a focus position (Bilola 2013, Kouankem 2013).

So far, it has been demonstrated how the demonstrative determiner, the proximate and distal particles are derived relative to the noun, and also how the demonstrative possessive determiner is derived. The question one has to resolve is what happens when the demonstrative and the possessive determiner co-occur as in the example below:

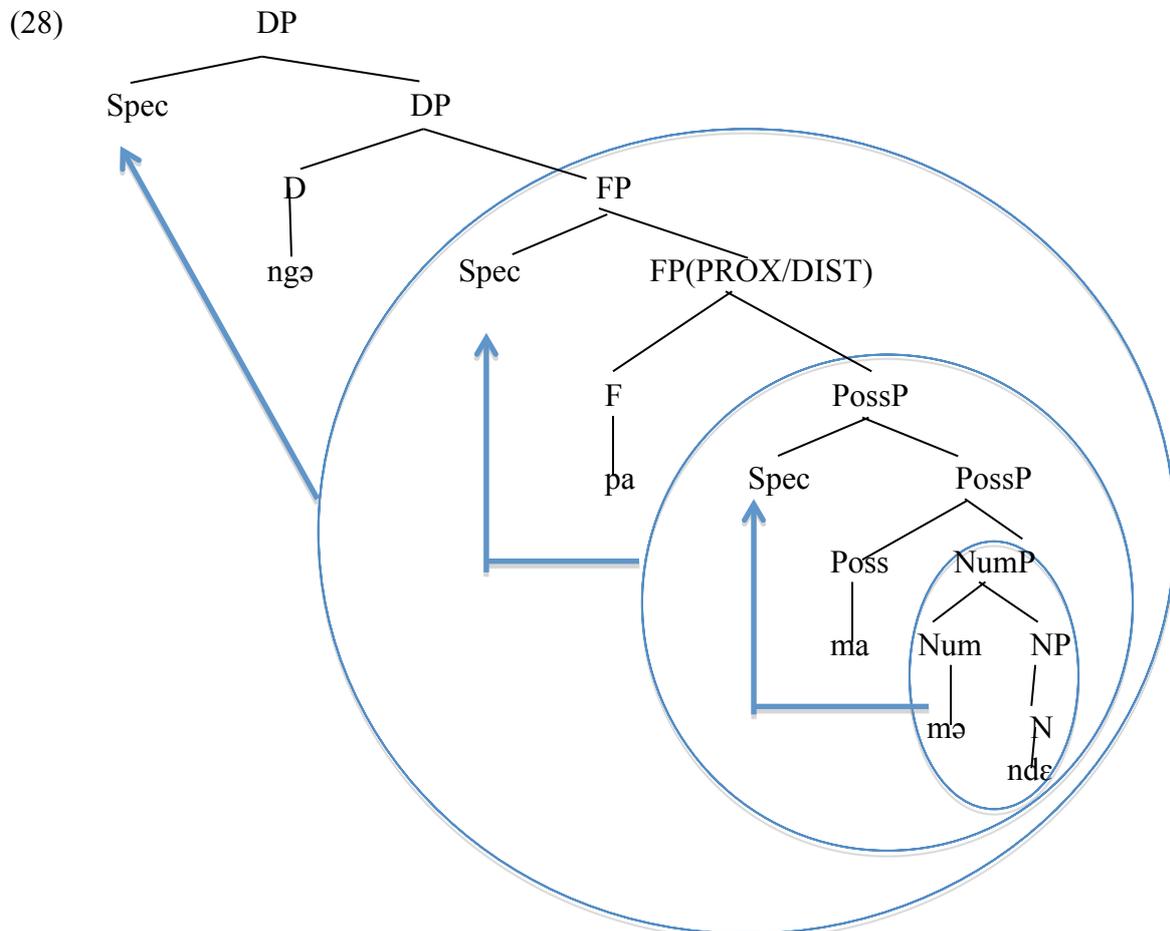
- (26) mə-nde m-a p-a ngə
 PL-house PL-1POSS PL-1PROX DEM
 “These houses of mine”

What is interesting about this example is that the different elements in the D-complex seem to appear in a fix order. Any change in order leads to an ungrammatical construction:

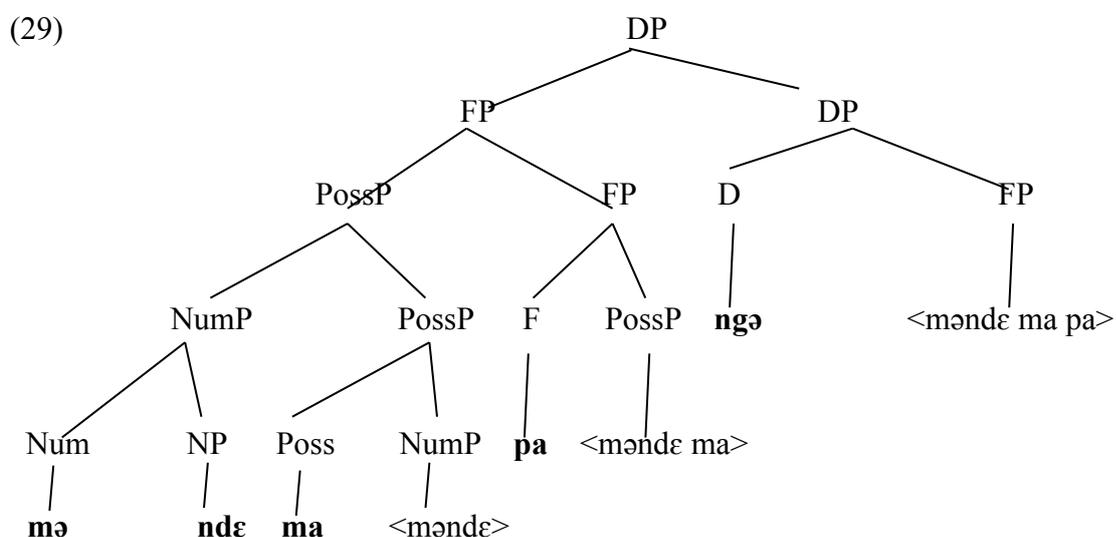
- (27) *mə-nde p-a ngə m-a
 PL-house PL-1PROX DEM PL-1POSS

When the demonstrative and the possessive co-occur in within the DP-complex in ngômbà, the linear order is derived via successive roll-up movements (see also Keupdjio 2014). First, the noun merges with the number prefix to form NumP (*mə-nde*). Next, when NumP merges with the possessive phrase, NumP is moved to Spec, PossP to yield (*mə-nde ma*). Then, when PossP merges with the functional projection heading the proximate or the distal particles,

PossP also moves to Spec, FP and yield (*mə-ndɛ ma pa*). Finally, when FP merges with DP, FP is in turn moved to Spec, DP to yield the right linear order (*mə-ndɛ ma pa ngə*). These successive roll-up movements are represented in the tree diagram below:



After the different successive roll-up movements, one gets the “mirror image” (see Baker 1985) of the merge order of the different elements within the DP. The derived order of the different DP elements is represented in the following structure:



6. Conclusion

It is argued in this paper that the determiner or determiner-like elements in ngômbà are generated in a position to the left of the head noun and that the demonstrative determiner occupies the head D of DP. To account for the derivation and the agreement relation between the PROX/DIST particles in ngômbà, I postulate for the existence of a functional projection (FP) headed by the proximate or the distal particles above NumP. When the noun and the head of FP merge, the noun phrase is moved to Spec-FP and the agreement relation between the noun and the PROX/DIST particles is established under Spec-Head configuration. With regard to the number morphology, I assumed that the number prefix occupies the head of the functional projection NumP located above NP. When the demonstrative and the possessive co-occur in within the DP-complex in ngômbà, the linear order is derived via successive roll-up movements. First, the noun merges with the number prefix to form NumP; next, when NumP merges with the possessive phrase, NumP moves to Spec-PossP; then, when PossP merges with the functional projection heading the proximate or the distal particles, PossP also moves to Spec-FP and finally, when FP merges with DP, FP in turn moves to Spec-DP to yield the right linear order.

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