Journal of West African Languages

Volume 47.2 (2020)

THE RELATIVE CLAUSE IN MƏDʊ́MBɑ AND THE ARCHITECTURE OF THE LEFT PERIPHERY

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Abstract

This article provides an analysis of the relative clause construction in Mədʊ́mbɑ̀ that is consistent with some of the most recent theoretical analyses of relatives. Specifically, the article presents various kinds of relative clauses and then establishes the factors that differentiate one from the other. The analysis demonstrates that the structure of the relative clause in Mədʊ́mbɑ̀, especially as concerns the co-occurrence of the relative marker and a regular complementizer, can be better captured if we assume De Vries' IP-internal relative DP hypothesis and Rizzi's split-C hypothesis and add to these the view that DP-Rel (the IP-internal relative clause) moves to Spec-FinP. It is further proposed that there is an EPP feature with an illocutionary force in the left periphery of CP which attracts FinP and pied-pipes the finiteness clause to the left periphery of the complementizer clause. The appropriate fronted constituent checks this EPP feature in Spec-ForceP (FinP) that is raised to that position.

Key words: relativization, definitivizer, EPP feature, pied-piping, left periphery.

1. Introduction

This article is an in-depth examination of the internal structure of relative clauses in the Mədʊ́mbɑ̀ language in light of recent theoretical analyses. Some traditional analyses for relative clauses suggest that these are comparable to DP-modifiers that are adjoined to the determiner phrase. For others, the relative clause involves complementation. This article presents new data from Mədʊ́mbɑ̀ that can be interpreted as evidence for a new analysis. It gives some descriptive facts about relative clauses in Mədʊ́mbɑ̀ and the issues that a descriptively adequate analysis of relative clauses should be able to account for. After this description, it is shown that the traditional analyses of relative clauses (those that assume that the relative clause is either a DP-adjunct or a DP-complement) cannot adequately account for issues in the Mədʊ́mbɑ̀ relative clause. Based on works done by Rizzi, I will rather adopt the split-C view. In adopting the split-C hypothesis, this paper fits into an ongoing exploration of the functional structure of the left periphery in particular and the cartography approach in general (Rizzi 1997; Cinque 1999, Aboh 2006). In this regard, the observations and conclusions made here are open to further refinements pending new empirical facts and theoretical developments.

The paper starts with a discussion of the different types of relative clauses that the Mədʊ́mbɑ̀ language exhibits. In section 3, I look at how Mədʊ́mbɑ̀ marks the position relativized. Section 4 attempts a detailed analysis of the status, the distribution, the category and the function of a Mədʊ́mbɑ̀ curiosity, the definitivizer *lá*. The internal structure of the Mədʊ́mbɑ̀ relative clause is proposed in section 5 followed in section 6 by its architecture in the light of the left periphery theory.

2. Types of relative clauses

There are many types of relative clauses attested in natural languages. These types can be classified in terms of their syntax, their semantics and the type of relativization strategy that they use. Syntactically, relative clauses can be classified into two broad types: restrictive versus non-restrictive RCs (appositives) with respect to whether RCs are in apposition to the head noun. Restrictive RCs can be divided into two classes, embedded RCs versus adjoined RCs, with respect to whether the RC is subordinate to

the head noun. Embedded RCs can in turn be classified into three subtypes with regard to the distribution of the head noun: head-external, head-internal, and head-incorporated free RC, while adjoined RCs can be further divided into two subtypes: left-adjoined RCs (correlatives) versus right-adjoined RCs (extraposed RCs). All types of relative clauses are hardly ever attested in the same language. Most of the Bantu languages do employ two types: the restrictive and the appositive. In my discussion of relative clauses, I will focus mainly on restrictive relative clauses in Mədúmbà.

2.1 The restrictive relative clause in Mədúmbà

The relative clause in Mədúmbà functions to complement an antecedent noun by describing or delimiting its potential domain of reference. The relative clause is post-nominal (in the sense that it occurs to the right of the relativized noun phrase) and the form of the verb and tense, aspect markers within IP is not different from the form we find in ordinary declarative sentences. As will be illustrated in section 3, the relative clause is introduced by either (a) a relative marker; or (b) nothing at all.

2.2. Relativizable NP positions

The question of which position in a clause may function as NPrel has been a central concern of many recent works, (Givón 1990: 250-251, Kuteva T. and B. Comrie 2005: 210-213; Keenan 1985:146). Let us note that the question of which position in a language can be relativized is not independent of the relative clause forming strategy used. More elements can be relativized if personal pronouns are presented in the NPrel position than if they are not. Ross (1967:161), for example, observed that NPs in single branches of a coordinate structure cannot be relativized in English. Thus from (1a) below we cannot form (1b).

1) a. The boy and the girl left early

b. *The girl that the boy and left early

Similarly, NPs within complex NPs (ones headed by a noun) are unrelativizable in English. From (2a) we cannot form (2b).

2) a. I know the man who left the hat on the table

b. *The hat which I know the man who left on the table

However, these positions are not uncommonly relativizable using pronoun retention strategies[1]. Thus, the Welsh example in (3) below is a grammatical translation of (2b) (Keenan 1985: 407).

3) **‘r het y gwn y dyn a ’ i gadewodd ar y ford**
the hat I know the man that it left on the table
‘The hat that I know the man who left on the table.’

Similarly, current papers presented in generative models generally reject relativization in embedded questions (wh-islands) as ungrammatical in English, as indicated in (4) below. Yet its translation into the pronoun retaining Hebrew in (5) is completely natural.

[1] The pronoun retention strategy is defined as one where a pronoun or pronominal marker referring to the head of a relative clause is obligatory in the relative clause but is not obligatory in the corresponding declarative clause.(Comrie and Kuteva 2013)

4) *The crimes that the police don't know who committed.

5) **Ha-pshaim she ha-mishtara lo yodat mi bitsea otam.**
the crimes that the police not know who committed them
'The crimes that the police don't know who committed them.'

Relativizable positions therefore differ as one moves from one language to the other. Keenan and Comrie (1977:66) however proposed a cross-linguistic hierarchy with respect to relativization: subject, direct object, indirect object of pre- or post-position and possessor. This Accessibility Hierarchy is applicable in Mədúmbà since the relativized noun phrase can correspond to all the positions listed above as illustrated in the following examples.

6) a. Subject position
i) **mɛ́nzwì ná' sɔ̀g nzwɔ̀**
woman P_6 wash cloth
'The woman washed the cloth.'

ii) **mɛ́nzwì zɔ̀ à ná' sɔ̀g nzwɔ̀ lá**
woman RM SM P_6 wash cloth DEF
'The woman who washed the cloth.'

b. Object of preposition
i) **à fú nkáb nǔm bún cân lì**
he give money to children these here
'He gave money to these children.'

ii) **bún cân lì tsɔ̀ à fú nkáb nǔm bú lá**
children these here RM he give money to SM DEF
'These children to whom he gave money.'

c. Direct object
i) **mɔ̀ nù ntsɔ̀**
I drink water
'I drank the water.'

ii) **ntsɔ̀ mì mɔ̀ nù lá**
water RM I drink DEF
'The water that I drank.'

d. Possessor
i) **à yân nshún nvɔ̀n**
he see friend chief
'He saw the friend of the chief.'

ii) **nvɔ̀n zɔ̀ à yân nshún ì lá**
chief RM he see friend his DEF
'The chief whose friend he saw.'

e. ***nvɔ̀n zɔ̀ mɔ̀ yân nshún ì**
chief RM he see friend his

(6) illustrates a number of properties regarding relative clauses. We observe from the examples that there is a relative element, which I have analysed as the relative marker (RM) intervenes between the head noun and the relative clause. This relative element agrees with the head noun in class and number. Thus, we see that in (6a) the relative element is *zə* agreeing with *mén* 'child which is a class 1 noun.', whereas in (6b) it is *tsə in* agreement with *bún* 'children.' from class 6, in (6c) *mì* agrees with *ntsə* 'water.', a noun from class 3 in Mədʉ́mbə̀. I refer the reader back to Kouankem (2013:59-60) for more details on agreement marking in the Mədʉ́mbə̀ determiner phrase. We also observe in (6) that the head noun systematically precedes the relative marker with which it agrees. Taking agreement to be a Spec-head relation as standardly assumed, the observations above suggest to me that the relativized noun and the relative marker stand in a Spec-head relation. We will come back to the precise structure of this construction later on. Another interesting fact about the Mədʉ́mbə̀ relative clause concerns the definitivizer *lá, which* always appears in relative clause-final position. The ungrammaticality of (6e) stems from the fact that this element has been omitted in this construction. Generally, it is the case that only one element marks relativization in relative clauses. If then in Mədʉ́mbə̀ we have both a relative marker as the boundary of the relative clause upward and a definitivizer which delimits the RC downward, which strategy can better capture these facts? Example (6) also illustrates a cross-linguistic hierarchy with respect to relativization. Many positions can be relativized in Mədʉ́mbə̀, the question is whether the same derivational strategy is employed for all the positions. The discussion in the following subsections attempts answers to these questions raised. We begin with the issue of marking the position relativized.

3. Marking the position relativized

It is an interesting question to consider how Mədʉ́mbə̀ marks which position in the Srel is the NPrel position. For instance how does Mədʉ́mbə̀ signal the meaning difference between 'the man who saw Nami' where NPrel is the subject of *saw*, and 'the man who Nami saw', where NPrel is the direct object of *saw*? There appears to be four ways of presenting NPrel in Mədʉ́mbə̀: It may be i) a resumptive pronoun, ii) a relative marker, iii) a non-embedding strategy or iv) nothing at all. We consider these possibilities in turn. In the discussion, we will use the notation NPrel to refer to the position in the restrictive clause and Srel to refer to the restrictive clause. For example in 'the men that I know' NPrel is in the direct object position of Srel.

3.1. The non-embedding strategy

In many languages, non-embedding is the main or even the only relativizing strategy possible (Givón 1990: 652). In a non-embedding relative clause, the coreferent noun may be coded as an anaphoric pronoun if the relative clause follows the main clause. When the relative clause precedes the main clause, the coreferent argument is often expressed as a full NP in the relative clause and as an anaphoric pronoun in the main clause. In Mədʉ́mbə̀, an anaphoric pronoun most commonly refers to the coreferent noun in the main clause as in the following examples.

7) a. *Unembedded, pre-posed (Subject-rel, Object-main)*
mɛ̀n à ná' ndù' bì lá, mə́ ná' yə̀n ì
person he P_6 take knife DEF, I P_6 see him
'The person who took the knife, I saw him.'

b. *Unembedded, pre-posed (Object-rel, Object –main)*
bà' mə́ yə̀n lá, bú cwɛ̌d kwʉ̀l ì
house I see DEF, they Prog build it
'The house that I saw, they are building it.'

In these examples, the relative clauses look exactly like main clauses, with the exception that a special morpheme –the definitivizer *lá* appears in the relative clause final position. The modifying subordinate proposition is unembedded (i.e. it has the properties of a simple ordinary construction) and retains its own normal main-clause structure.

3.2. The pronoun retention strategy

The pronoun retention strategy is used in truly embedded relative clauses, most commonly when they are post-nominal. In this case, the position relativized is explicitly indicated by means of a resumptive personal pronoun. This strategy is illustrated below.

8) a. **mə yə̂n mɛ̀n zə *à* làb ù lá**
I see person RM he beat you DEF
'I have seen the person who has beaten you.'

b. **mɛ̀n zə ù fɑ́ ŋwà'nì *yì* lá**
person RM you give book him DEF
'The person to whom you gave the book.'

c. **dìáŋ zə à yàb mbàb nŭm *bwə̀* lá**
chair RM he put meat on it DEF
'The chair on which he put the meat.'

d. **mɛ̀n zə ù kwù̀l bà' *ì* lá**
person RM you build house it DEF
'The person whose house you build.'

e. **mə yə̌n mɛ́n zə ù làb ì lá**
I see child RM you beat it DEF
'I saw the child that you beat.'

Mədʉ́mbɑ̀ is a good example of a pronoun retention language not only because the head noun is referred to by means of a resumptive element within the relative clause (cf. **ì, bwə̀, yì, à** in the examples above) but also because using a resumptive element is not characteristic of simple declarative clauses in Mədʉ́mbɑ̀ as the following example illustrates.

9) **ù fɑ́ ŋwà'nì nŭm ŋgâmì**
you give book to Ngami
'You gave the book to Ngami.'

As can be observed from this example, Mədʉ́mbɑ̀ does not make use of resumptive pronouns in simple ordinary constructions. In Mədʉ́mbɑ̀, a resumptive pronoun is obligatory if an oblique argument is extracted by relativization. Compare examples (10a) and (10b) below in which we have oblique pronouns versus (10c) where a direct object has been extracted.

10) a. **mɛ̀n zə mbàŋ lù nŭm ì lá**
person RM rain fall on him DEF
'The person on whom it rained.'

b. **bʉ́n tsə̀ ŋgâmì fù ŋká nŭm bú lá**

people RM Ngami give dishes to them DEF
'The people to whom Ngami gave dishes.'

c. **mɛ̀n zə̀ ŋgâmì kə̌ (ì) lá**
person RM Ngami love him DEF
'The person whom Ngami loves.'

(10a) and (10b) show that when an oblique argument is extracted by relativization we obligatorily get a resumptive pronoun in the position from which extraction has taken place. On the contrary, (10c) indicates that we optionally get a resumptive pronoun if a matrix direct object is extracted. I assume that when a resumptive pronoun is optionally present it is simply repeated for emphasis. Based on (10a) and (10b), I conclude that the object of a preposition when relativized requires a resumptive pronoun.

3.3. The relative marker strategy

This strategy involves the use of relative markers. These markers are distinct from resumptive pronouns. Unlike resumptive pronouns, relative markers tend to appear not in the normal position of the argument in the main clause, but rather at the clause boundary. Most commonly, they are fronted, i.e. they appear at the beginning of the relative clause. The relative marker helps distinguish the relative clause from a main clause. The use of the relative marker strategy is illustrated below.

11) a. **mɛ́n zə̀ mə̀ yə̂n lá**
child RM I see DEF
'The child that I saw.'

b. **bún cə̂n lì tsə̀ à fú ŋkáb nŭm bú lá**
children these here RM he give money to them DEF
'These children to whom he gave money.'

c. **ŋká mə́m mì ŋgâmì fú nŭm bú lá**
dishes my RM Ngami give to them DEF
'My dishes that Ngami gave to them.'

d. **mə̀ yə̂n mɛ́n zə̀ mù-úb cwɛ̌d ndʉ̀' nù lá**
I see child RM mother-his Prog cultivate farm DEF
'I saw the child whose mother is farming.'

e. **fù sə̀ mə̀ fù yí lá**
medecine RM I gave her DEF
'The medicine that I gave to her.'

Tsə̀, zə̀, sə̀, mì are generally referred to as pronouns because they are words used to refer back to the antecedent noun in the main clause and as such behave like pronouns (i.e. they are nouns' substitutes). They are also termed relative pronouns because they only appear in relative clauses. They mark the boundary between the main clause and the relative clause and as said earlier, they help distinguish the relative clause from a main clause.

We observe from the examples in (11) that the relative marker intervenes between the head noun and the relative clause. This relative marker agrees with the head noun in class and number. The relative element has also been traditionally referred to as a relative subject pronoun. There are two reasons for this. First, it is a pronominal element referring back to the head noun, and agreeing with it in class and number.

Secondly, it is a form specialized for use only in relative clauses. Examples like those in (11b, c, d and e) show, however, that this is not the case because the same morphemes appear as referring elements to the head noun also in cases where it is not the subject within the relative clause. Therefore, following Kuteva and Comrie (2004:216), I propose that the relative marker in Mədúmbà is to be regarded as a nominal class agreement marker but not the marker of the case role of the head noun within the relative clause. In other words, we are only dealing with an agreement marker and not a case-marking relative pronoun. The problem of treating these forms as pronouns is that we do not seem to find them anywhere else apart from relative clauses. This is very different from Germanic and Romance where, for example in French, the so-called 'pronom relatif' are also used for questions.

3.4. The gap strategy

The missing coreferential argument in an embedded relative clause can also be recovered without any morphological provision. That is the coreferential argument may be missing without a trace. When no element in Srel expresses NPrel, it is said that NPrel has been gapped and sometimes such restrictive clauses are referred to as being formed by gapping. In Mədúmbà, NPrel is most likely to be gapped if it is the subject of Srel. The gap strategy is most commonly found in languages with a rigid word-order, where inferring the missing argument is presumably easier. This strategy is illustrated below.

12) a. **mɛ́n mə̀ yə̂n lá**
child I see DEF
'The child that I saw.'

b. **ŋ̀ká múm ŋgâmì fù nŭm bú lá**
dishes my Ngami give to them DEF
'My dishes that Ngami gave to them.'

It is generally the case that only noun phrases can be relativized, but as the following examples illustrate, the relativized noun phrase can, of course, be a pronoun.

13) a. **bún tsə̀ bú kə̀ fà' lá**
people RM they Neg work DEF
'People who did not work.'

b. **bú tsə̀ bú kə̀ fà' lá**
they RM they Neg work DEF
'They who did not work.'

c. **[e] tsə̀ bú kə̀ fà' lá́**
RM they Neg work DEF
'Those who did not work.'

14) a. **ŋ̀ká mì ŋgămì fù nŭm bú lá**
dishes RM Ngami give to them DEF
'My dishes that Ngami gave to them.'

b. **[e] mì ŋgămì fù nŭm bú lá**
RM Ngami give to them DEF
'The ones that Ngami gave to them.'

We observe in (13b) and (13c) that both resumptive pronouns and gaps are used. (13c) and (14b) would lead one to think that Mədʉ́mbɑ̀ has headless relatives. In these examples, the head noun of the relative is understood but unpronounced. In Mədʉ́mbɑ̀ only [+ human] nouns have overt pronominal forms as can be seen from (13b). [- human] pronouns have a zero pronominal form which corresponds to a 'silent pronoun.' *pro*. This explains why we do not have a pronoun replacing 'dishes.' in the examples in (14).

To conclude this section on the strategies used to mark the relativized position in Mədʉ́mbɑ̀ it is worth noting that the question of which positions in a language can be relativized is not independent of the relative clause forming strategy used. I now turn in the next section to tease out the distribution, function and grammatical category of the definitivizer lá.

4. Status, grammatical category and function of the definitivizer lá

Another interesting fact, which I pointed out about the Mədʉ́mbɑ̀ relative clause concerns the fact that whatever strategy is used to mark the position relativized, a definitivizer (DEF) always appears at the relative clause-final position. A semantic analysis of *lá* and the various contexts in which it occurs is needed before we reach a fine-grained analysis of the function of this element. For the sake of the description, I will continue to refer to this element as the definitivizer. First, I focus on the status of *lá*. The question of the status of this definitivizer will help in decomposing the internal structure of the relative clause in Mədʉ́mbɑ̀.

4.1. Status and distribution of lá

In relative clauses, the antecedent noun is usually definite and the relative clause, is closed by an anaphoric definitiviser *lá* which serves to convey or reinforce the specificity of the antecedent noun. In some cases, the definitivizer appears after the verb just like adverbs (15a). Given this distribution, it is tempting to consider *lá* an adver; adverbs are used to modify verbs. If *lá* is an adverb, we expect it to appear in simple construction occupying the position of an adverb.

15) a. **mɛ́n zə̀ mə̀ yə̂n lá**
child RM I see DEF
'The child that I have seen.'

b. **mɛ́n sə̀' sɛ̀n**
child come today
'The child came today.'

c. ***mɛ́n yə̌n lá**
child see DEF

Though the definitivizer *lá* shares some distributional properties with adverbs, it cannot be considered an adverb since not only can it not bring specific information that an adverb brings to a verb, but also its use in a simple declarative sentence is ungrammatical as the example (15c) above illustrates. In some cases, the definitivizer follows a noun as can be seen in example (a) below.

16) a. **mə̀ yə̌n mɛ́n zə̀ mɑ̀-ɑ́b cwɛ̌d ndɨ̀' nɑ̀ lá**
I see child RM mother-his Prog cultivate farm DEF
'I saw the child whose mother is farming.'

Generally, in Mədʉ́mbɑ̀, modifiers such as demonstratives, determiners, adjectives, etc. follow nouns. Considering that *lá* also comes after nouns, one can

question whether *lá* is a type of noun modifier that we have not yet accounted for. The ungrammatical sentence (16b) indicates that *lá* cannot appear in a simple sentence and modify the noun. This suggests to me that *lá* has no determiner property. (16c) is also ungrammatical because the definitivizer has been omitted in the relative. This therefore shows the importance of this definitivizer in the relative clause.

b. ***mà-áb cwɛ̌d ndʉ̀' nà lá**
mother-his Prog cultivate farm DEF

c *.**mə̀ yǎn mɛ́n zə̀ mà-áb cwɛ̌d ndʉ̀' nà**
I see child RM mother-his Prog cultivate farm

This definitivizer also appears in stories when we narrate a sequence of events or actions as illustrated below.

17) a. **ndà mə̀ ná' sə̀'ə̀ lá, mə̀ ncú ndà ntsʉ̀ nsì**
as I P_6 come DEF I enter house sit down
'As I came, I entered the house and sat down.'

b. ***mə̀ ná' sə̀'ə̀ ncù ndà ntsʉ̀ nsi lá**
I P_6 come enter house sit down DEF

c. ***ŋgǎmì fɑ́ nká nǔm bú lá**
Ngami give dishes to them DEF

We observe that in example (17a)), the definitivizer appears in the subordinated clause sentence-final position. The ungrammaticality of (17b) and (17c) stems from the fact that *lá* cannot appear in an ordinary construction. Building on the fact that *lá* appears systematically in embedded clauses and never in ordinary constructions; I suggest that *lá* is an element that marks subordination in Mədúmbà. Having determined the status of the element lá in the next section I turn to the question of its grammatical category and function.

4.2. Grammatical category and function of lá

We have seen all along that the definitivizer lá occurs only in relative clauses and only in sentence-final position. We have also proved that *lá* cannot stand alone and is neither an adverb nor a determiner-like element. I suggest, by way of a hypothesis, that it probably belongs to a functional category just like the complementizers 'if.' and 'that.' Consider the examples below with if, that and *lá*.

18) a. I wonder **if** he came
b. I know **that** he came

c. **nká mì ŋgǎmì fɑ́ nǔm bú lá**
dishes RM Ngami give to them DEF
'The dishes that Ngami gave to them.'

In example (a), 'if' gives the structure its interrogative nature. 'That' in (b) introduces the declarative sentence and in example (c), the definitivizer *lá* gives the embedded nature to the example. In Mədúmbà an embedded clause cannot be constructed without this element. This explains the ungrammaticality of the structure in (19) below.

19) * **ŋká mì ŋgǎmì fɑ́ nǔm bú**
Dishes RM Ngami give to them

This definitiviser also appears in another Grassfield Bantu language: Bafut. One prominent feature of the relative construction in Bafut is the relative particle *lάά* which occurs at the right edge of the relative clause as illustrated below.

20) a. **m-û w-á mə̀ à kɨ̀ bòô ŋ̀-kwû lάά à kwò-mə̂**
1-child 1-the COMP SM P_2 meet 1-ghost DEF he die-COMP
'The child who met a ghost has died.'
[Tamanji 2009: 97]

b. **m̀-bî mə̀ dʒ-ì kɨ̀ kwùrə̂ ànsáŋ ɣ-à, ò fí'î**
10-goats COMP 10-SM P_2 eat 1-corn 1-my you remove
'Goats which ate my corn, you (dare) set them free!'

As Tamanji (2009: 97) indicates, the presence of this particle is obligatory in relative constructions. The definitivizer *lá* in Mə̀dúmbə̀ and *lάά* in Bafut help to distinguish between a simple ordinary construction and a relative clause. The fact that this element is obligatorily present in a clause to tell us about the type of construction we are dealing with, (that is a relative clause) suggests to me that the definitivizer is like a complementizer that has scope over the entire structure though it appears at the sentence-final position. I suggest that at some point in the derivation, it was in the sentence-initial position like the English *if* or the French *si*. Building on this, I propose that *lá* in Mə̀dúmbə̀ was in sentence initial position. This position represents the head of the complementizer phrase (CP). I further suggest that some strong feature in the left periphery of the CP attracted the entire clause, stranding the complementizer/definitivizer *lá.* Put another way, I suggest that constituents that precede the definitivizer *lá* occur within the left periphery and must have been attracted there by some C-type head. What needs to be determined is the exact position that *lá* occupies in the left periphery. We turn to this in the next section.

5. The internal structure of the Relative Clause

We observed that in Mə̀dúmbə̀ the head noun precedes the relative clause. When a relative marker is present, the head noun precedes and agrees with it in class and number. The fact that the head noun obligatorily precedes the relative pronoun and shows agreement with it may suggest that the relation between the head noun and the relative pronoun is a local relation. We also noted that the relative complementizer in Mə̀dúmbə̀ appears in the sentence final position. I will show that the analyses of relative clauses, which assume that the head noun is adjoined to the relative clause or has CP as its complement, cannot adequately account for issues in the Mə̀dúmbə̀ relative clause. Rather, an analysis, which assumes that some elements have moved to the left periphery of CP, will better account for the data.

5.1. Complementation or adjunction?

The traditional analysis for relative clauses suggests that these are comparable to DP-modifiers that are adjoined to the determiner phrase (Vergnaud 1974:146). It is therefore commonly assumed that the relative clause involves a CP that right adjoins to DP. In addition, Spec-CP of the relative clause hosts a null operator that is co-indexed with the relative head noun. In terms of this analysis, a sentence like (21a) is assigned the partial representation in (21b).

21) a. **mɛ́n zə̀ mə̀ yə̌n lá**
child RM I see DEF
'The child that I have seen.'

b. [DP mɛ́ni [DP [CP OPi [C^0 zə̀ [IP mə̀ yə̌n lá ti]]]]]

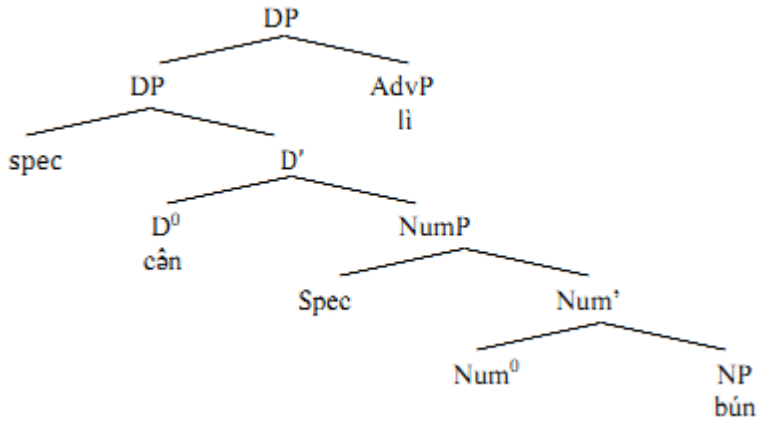
Under Kayne (1994:chapter 9), however, the relative clause involves a complementation structure similar to that in (22), where the proposition (IP) merges as the complement of the relative complementizer under C to form CP, whose specifier hosts the relative noun that raises there. The CP with the relative noun in its specifier then merges with D, which hosts the determiner to form the DP, that is, the relative clause.

22) [DP [D [CP mɛ́ni [C^0 zə̀ [IP mə̀ yə̌n lá ti]]]]]

The question naturally arises how to choose between these two competing analyses. This section discusses new data from Mədʉ́mbə̀ that can be interpreted as evidence for a new analysis. Neither the adjunction nor the complementation theory gives details about the status of *lá*, which, as we have demonstrated, is the head of the complementizer phrase. If the moved noun is in Spec-CP and the determiner in D, as the complementation theory suggests, how can we account for the Noun-Determiner word order in Mədʉ́mbə̀?[2]
In this structure, the noun in Mədʉ́mbə̀ is generated in a position below NumP. In Mədʉ́mbə̀ a determiner phrase like (23a) has, the derivations proposed in (24a) and (24b).

23) **bún cə̂n lì**
children these here
'These children.'

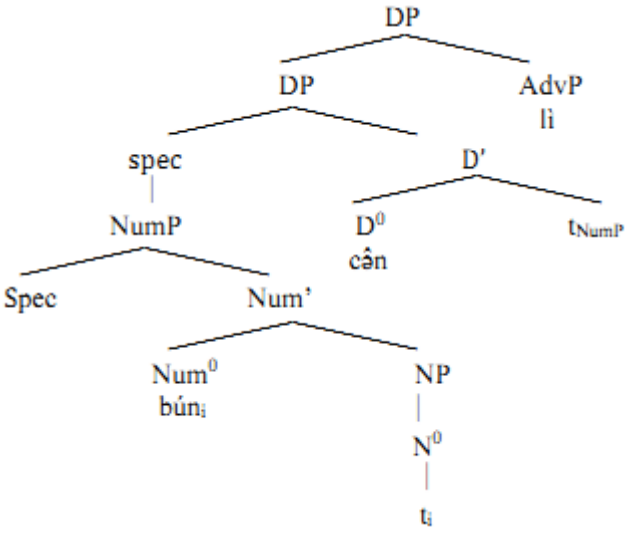
24) a.



In this derivation, the noun follows rather than precedes the determiner. In order to derive the correct word order, the noun first moves to Num0. Subsequent movement of NumP to Spec-DP yields the word order attested in Mədʉ́mbə̀ DP as outlined in the structure below.

[2] See Kouankem (2013) for more details about the Mədʉ́mbə̀ DP.

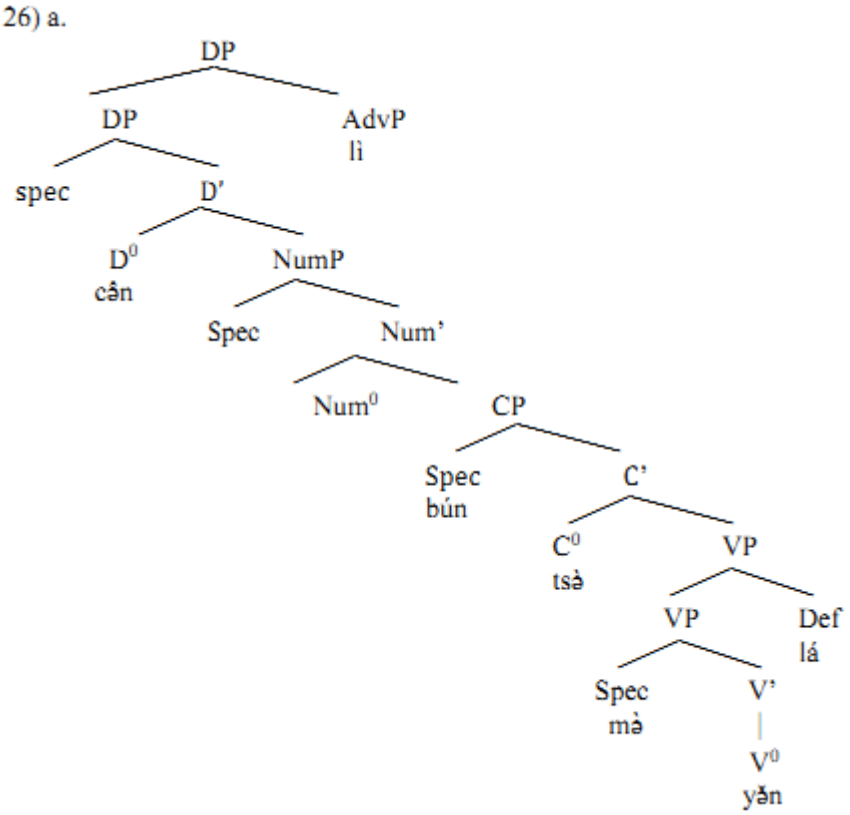
b.



Following the complementation theory, a DP, which contains a relative clause, takes CP as its complement. Building on the fact that the structure in (24) above is the one assigned to the Mədúmbà DP, in a relative clause we make CP the complement of NumP.
From a descriptive point of view and following the complementation theory, a clause like (25) below can have the structure outlined in (26).

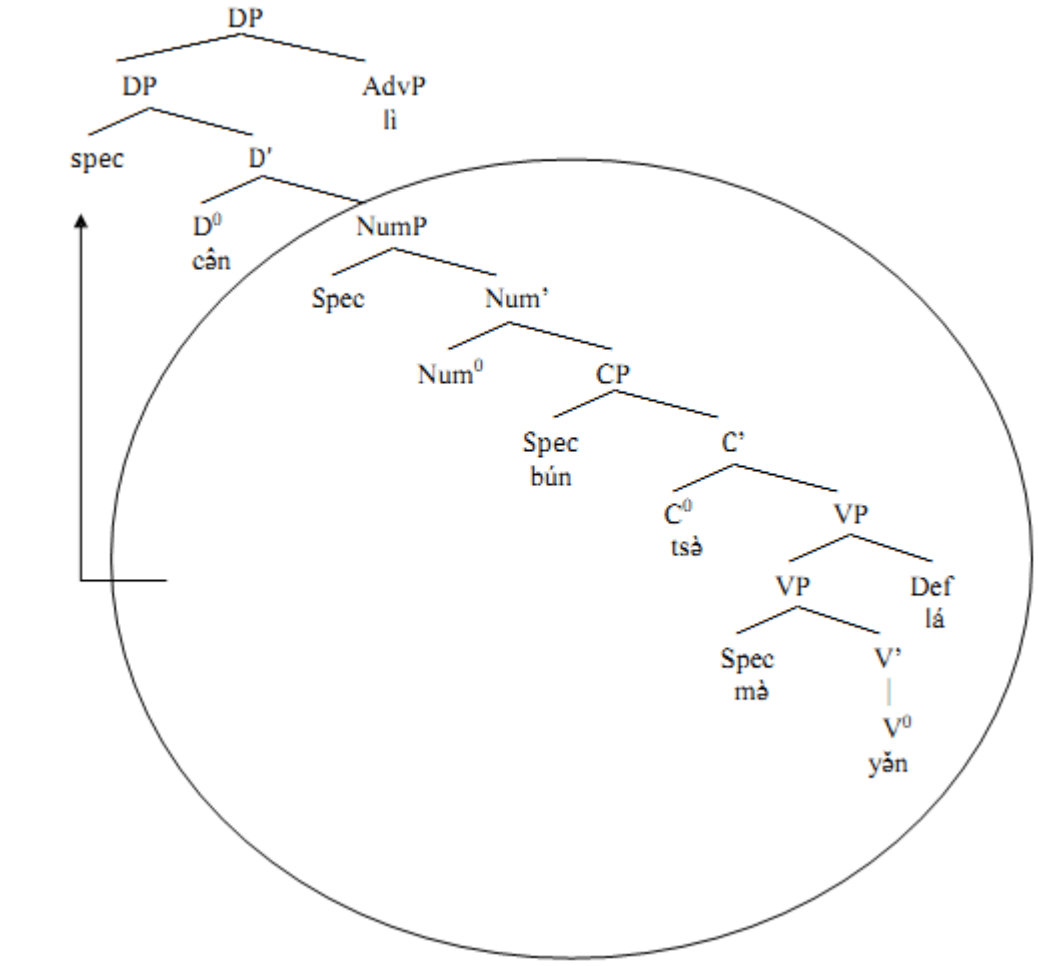
25) **bún cân lì tsə̀ mə̀ yə̌n lá**
children these here RM I see DEF
'These children that I have seen.'

26) a.



We observe from this structure that the word order is not respected. The demonstrative *cân* 'these' is pre-nominal whereas in simple ordinary constructions it follows the noun. The adverbial locative reinforcer *lì* rather appears in sentence-final position, a position reserved for the definitivizer *lá*. It is obvious from this that the derivation cannot yield the correct word order in Mədúmbà in which the anaphoric definitivizer is in absolute final position and the head noun in initial position immediately preceding the demonstrative determiner. Assuming the derivation in (26a), an analysis of the Mədúmbà relatives in terms of complementation would be that NumP has the relative clause as its complement as proposed by Aboh (2005:269). In this line, in Mədúmbà the complex phrase along with NumP pied-pipes to spec-DP as represented in (26b) below.

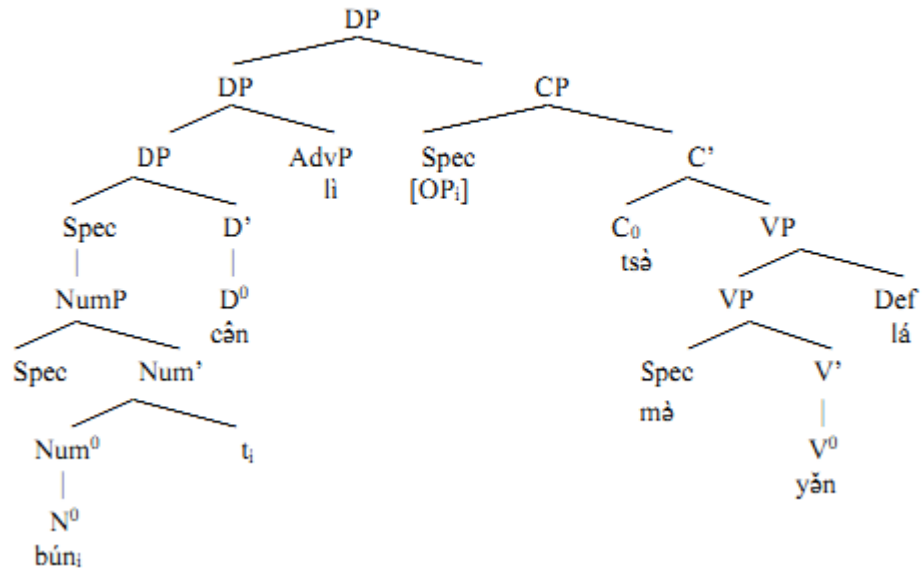
b.



Setting aside issues about free adjunction rules (Kayne 1994), where DefP is made the adjunct of VP, such an analysis does not seem to carry over to the distribution of the D-type elements (such as the demonstrative determiner) with regard to the head noun. Put differently, the derivation above shows that, even if we move NumP along with CP, to Spec-DP, the definitivizer is made the adjunct of VP whereas; it has been argued, in section 3 of this article, that this element is a complementizer. Neither would this complementizer be found in sentence-final position, as it is the case in Mədúmbà relative clauses. Moreover, the demonstrative determiner and the adverbial locative reinforcer would not be found between the noun and the relative marker as example (25) illustrates. This suggests that the complementation theory cannot adequately account for the Mədúmbà relative clause. The adjunction theory seems however to fare

better as it allows one to have the head noun before the demonstrative determiner. However, we run into problems with the definitivizer as the structure in (27) below illustrates.

27)



The derivation above has the advantage of accounting for the word order attested in the Mədʉ́mbɑ̀ relative clause. This structure also respects the DP structure proposed for the Bantu determiner phrases. However, we observe from this derivation that the definitivizer lá is also taken to be a VP -adjunct. The adjunction theory does not tell us how the definitivizer came to appear where the relativized noun is supposed to be base-generated. Even if the definitivizer is taken to be a DP-adjunct, we have the correct word order but the complementizer nature of *lá* is still not rendered. Building on this, I show in the section that follows that the structure of the relative clause in Mədʉ́mbɑ̀ can be better captured if we assume Rizzi's split-C hypothesis, De Vries' IP-internal relative DP hypothesis for relative clauses.

6. The position of the Mɑ̀dʉ́mbɑ̀ Relative Clause in the left periphery

In this section, I will adopt the baseline of the insights proposed by De Vries (2002). However, I will slightly depart from De Vries' view. De Vries (2002: 123) proposes that the relative head starts out as a full relative DP, whose head hosts the relative pronoun when there is one. This would mean that a German relative clause such as (28a) could be partially represented as in (28b) whereby the NP moves DP internally to specifier of the DP prior to raising to Spec-CP. In this framework, the strong [wh] features of the relative pronoun under D trigger movement of the relative DP to Spec-CP. In addition, the outer D is still needed because it allows the relative head noun to ultimately associate with a determiner, so that its θ-features can be checked and the whole relative clause can function as a proper argument.

28) a. **Ich fürchte den Herrn der eine Pistole trägt**
I fear the.Acc gentleman. Acc who.Nom one gun carries
'I fear the gentleman who carries a gun.'
[De Vries 2002:123]

b. [DP [D den [CP_ [DP-rel Herrnh der th]i [C0 _[IP ti eine pistole tragt]]]]]

The empirical motivation for this view is that the gap inside the CP clause represents an argument position (i.e. a legitimate position for argument DPs), and the trace of the relative noun is parallel to a variable (i.e. a DP-trace) in many respects (e.g. binding control properties, licensing of parasitic gaps, case marking, weak island effect).

Given that Mədúmbà manifests both the relative marker and the relative complementizer, there might be empirical grounds in this language for an IP-internal relative DP hypothesis for relative clauses. De Vries moreover proposed that DP-Rel should be raised to Spec CP. I depart from De Vries view here. I suggest that instead of moving DP-Rel to Spec CP, as suggested by De Vries, (since this will not yield the word order attested in the Mədúmbà relative clause), I propose that in Mədúmbà DP-Rel moves to some other position above CP.

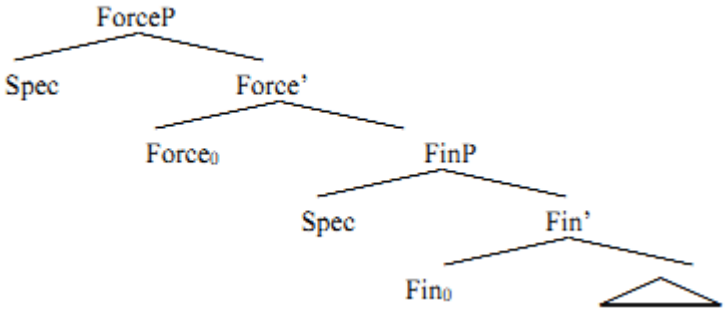
We have assumed that the definitivizer *lá* is based-generated in a sentence initial position (confer section 3). Following this assumption, a natural explanation for the data presented herein is to say that the morpheme *lá* always occurs underlyingly sentence-initially because it is in the highest head position of the CP domain. I propose in line with Rizzi (1997:283) and Aboh (2004:110) that *lá* manifests Force0, the head of the topmost projection of the C-system: ForceP. In his account for the left periphery, Rizzi (1997:283) proposed that the complementizer system should be seen as: The interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause). As such, we expect the C-system to express at least two kinds of information, one facing the outside and the other facing the inside.

Consider first the information looking at the higher structure. Complementizers express the fact that a sentence is a question, a declarative, an exclamative, a relative, a comparative, an adverbial of a certain kind, etc., and can be selected as such by a higher selector. This information is sometimes called the specification of Force (Chomsky 1995). Force is expressed sometimes by overt morphological encoding on the head (special C morphology for declaratives, questions, relatives, etc.) sometimes by simply providing the structure to host an operator of the required kind, sometimes by both means. The second kind of information expressed by the C-system faces the inside, the content of the IP embedded under it. It is a traditional observation that the choice of the complementizer reflects certain properties of the verbal system of the clause, an observation formalized e.g., by 'agreement' rules between C and I, responsible for the co-occurrence of *that* and a tensed verb, or *for* and an infinitive verb in English (Chomsky & Lasnik 1977), etc. A straightforward manner to account for these dependencies would be to assume that C contains a tense specification, which matches the one expressed on the lower inflectional system. Assuming these two types of information are the expressions of two separate heads Force0 and Fin0, which project their own X-bar schema within the C-system, Rizzi further proposes that when the topic/focus domain is triggered, it necessarily projects between ForceP and FinP, which manifest the outside and inside frontiers of the CP layer. In other words, the C-system involves a more articulated structure as illustrated in (29).

29) …Force…(Topic)…(Focus)…Finiteness (Adapted from Aboh 2004: 179)

If the C-system involves such a 'rich' structure and if we consider that the Mədúmbà *lá* is a head, just as its English counterpart *if*, the data presented so far lead us to the conclusion that the definitivizer *lá* occupies the topmost head position in the structure, that is Force0 as represented in (30). Accordingly, *lá* is a complementizer in Mədúmbà. This amounts to the saying that the Mədúmbà relative construction necessarily involves leftward movement of the whole sentence to the specifier position of the complementizer phrase. As a result, the Mədúmbà complementizer *lá* appears in sentence-final position.

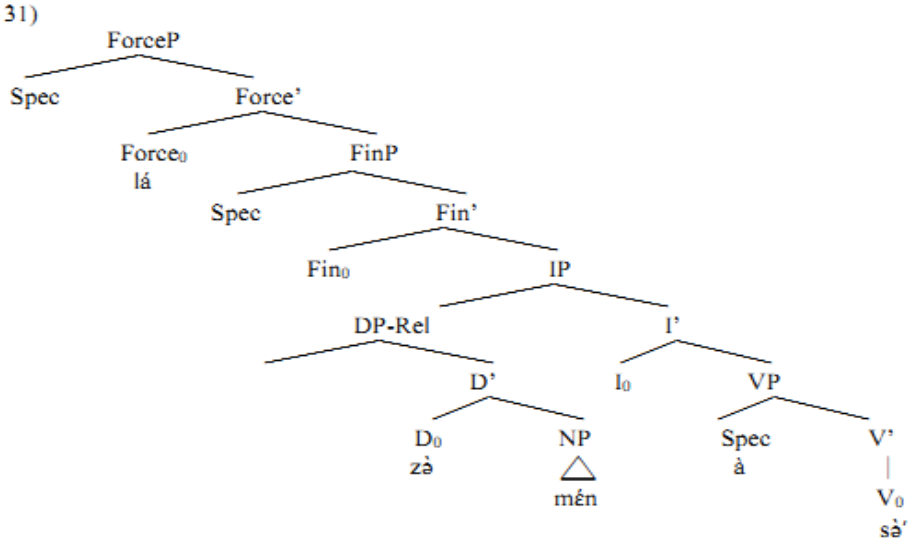
30)



Still assuming the split-C hypothesis, I further suggest that when CP is split, the maximal projection whose head hosts the definitivizer *lá* merges with the Finite Phrase (FinP) since it is the lowest functional projection within the C-system and the locus of finiteness specification. I suggest, following Rizzi (1997), Aboh (2004) and related work that FinP encodes the distinction between +finite and –finite, but also determines modality as suggested by Aboh (2006:46). On this basis, we can also suggest by way of a hypothesis, and following personal comments made by Aboh, that Fin is involved in determining whether a clause is nominal (i.e., -finite) or not. In the context of relatives this would mean that Fin hosts the relative marker. The relative phrase moves to Spec-Fin to check the nominal feature under Fin0 and the whole FinP moves to the specifier of the clausal determiner whose head is encoded by the complementizer *lá*.

The phrase marker schematized in (31) below represents the base structure of the relative phrase constituents. In this derivation, the relative noun is base generated as the complement of DP-Rel following proposals made by De Vries (2002). The complementizer *lá* is under Force$_0$.

31)

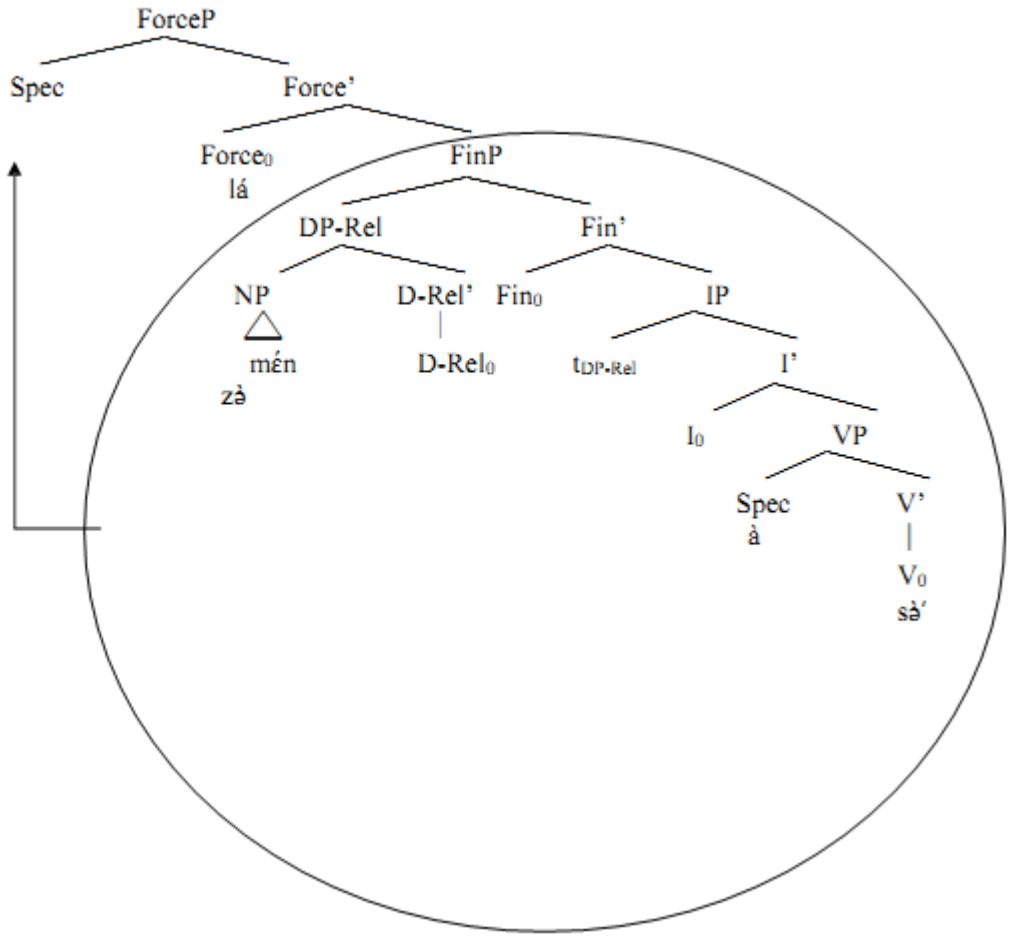


mɛ́n zə̀ à sə̀' lá
child RM SM come DEF
'The child who came

Assuming as earlier suggested that Fin is also involved in determining whether a clause is nominal or not, we propose that DP-Rel moves to Spec-FinP. Assuming that the proposed analysis is on the right track, I furthermore propose, in line with Aboh (2006:3) that there is an EPP feature with an illocutionary force in the left periphery of CP, which attracts FinP. This EPP feature is checked either by a null operator or by an appropriate fronted constituent that is raised to that position. Based on works done by Rizzi, I refer to this functional category which pied-pipes FinP as the Force Phrase. In

Mədúmbà this scenario will be instantiated by the structure below where DP-RelP moves to Spec-FinP and FinP subsequently raises to Spec-ForceP.

32)



Building on this, I propose that the main clause merges with the finite clause. The latter merges with Force0, encoded by the definitivizer to form ForceP. In terms of Kayne (1994), the relativized noun must move in overt syntax to Spec-CP, to check the strong features under C. Following proposals made by Aboh, I furthermore propose that in Mədúmbà the relative clause (i.e. the internal relative-DP) must raise to Spec-FinP to check the nominal property and subsequently FinP moves to Spec-ForceP to check the EPP feature. This predicate fronting is referred to in the literature as pied-piping (Nkemnji 1995:209).

This structure straightforwardly accounts for the Mədúmbà relative clause properties. We have seen all along that the relative pronoun agrees with the head noun in class and number. This condition is satisfied here since the head noun and the relative pronoun stand in a Spec-head configuration in DP-Rel. When DP-Rel moves to Spec-FinP, the strong nominal feature under Fin is also checked in a Spec-head configuration. Movement of FinP to Spec-ForceP besides satisfying the checking of the strong EPP feature located under Force0 also helps to account for the word order attested in the Mədúmbà relative clause, where the definitivizer/complementizer appears in the sentence final position.

7. Conclusion

This article provides an analysis of the relative clause construction in Mədʉ́mbɑ̀ that is consistent with the analysis of the DP structure in the language and with some of the most recent theoretical analyses of relatives, notably Rizzi (1997), De Vries (2002) and Aboh (2004, 2005 & 2006). Specifically, the paper presents various kinds of the relative clauses and then establishes the factors that differentiate one from the other. The analysis demonstrates that the structure of the relative clause in Mədʉ́mbɑ̀, especially as concerns the co-occurrence of the relative marker and a regular complementizer, can be better captured if we assume De Vries' IP-internal relative DP hypothesis and Rizzi's split-C hypothesis. Assuming the split-C hypothesis proposed by Rizzi (1997), I suggest that DP-Rel moves to the left periphery of the complementizer clause and when this is done, the maximal projection whose head hosts the definitivizer *lá* merges with the Finite Phrase (FinP) since it is the lowest functional projection within the C-system and the locus of finiteness specification. I further propose that there is an EPP feature with an illocutionary force in the left periphery of CP which attracts FinP. This EPP feature is checked in Spec-ForceP by the appropriate fronted constituent (FinP) that is raised to that position. Based on works done by Rizzi, I refer to this functional category which pied-pipes FinP as the Force Phrase. I indicate that in adopting the split-c hypothesis, this article fits into an ongoing exploration of the functional structure of the left periphery in particular and the cartography approach in general (Rizzi 1997, Aboh 2004, 2006).

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List of abbreviations

Acc : accusative
NP : noun phrase
VP : verb phrase
SM : subject marker
P_6 : remote past
RM : relative marker
DP : determiner phrase
NumP : number phrase
DEF : definitivizer
FocP : focus phrase
Spec : specifier
FinP : finiteness phrase
ForceP : force phrase
EPP : Extended Projection Principle
CP : complementizer phrase
θ-features : phi-features
DefP : definitivizer phrase
COMP : complementizer
Prog : progressive
Neg : negative marker
Srel : restrictive clause
NPrel : relativized noun phrase
RCs : relative clauses