N-FINAL RELATIVE CLAUSES: THE AMHARIC CASE*

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Abstract. Kayne develops a unique analysis for the relative clause construction based on the Linear Correspondence Axiom (LCA). According to Kayne (1994) outside the relative CP relative clauses do not have a nominal head. For him, the determiner directly selects the relative CP. Borsely (1997) and Platzack (1997/2000) argue that this kind of analysis has many drawbacks. However, their arguments come from N-initial relative clause constructions. This paper examines how Kayne's approach handles N-final relative clause constructions.

We will immediately note that Kayne (1994) proposes the empirically erroneous generalisation that N-final relative clauses lack an overt complementizer. Contrary to Kayne, languages such as Amharic clearly have a complementizer.

This paper argues that from an empirical and theoretical point of view Kayne's proposal to N-final relative clause construction has a lot of problems. In line with Platzack (1997/2000), this paper argues that N-final relative clauses can be treated uniformly with N-initial relative clauses as a complement of a "head" noun and moved to the functional definiteness Agr category to check the definiteness feature in the sense of Chomsky (1993).

1. Introduction

It has been claimed that hierarchical structure is not subject to parametric variation, but linear order is. Kayne questions this idea, "if two phrases differ in linear order, they must also differ in hierarchical order" (1994:3). He further argues that the hierarchical structure determines linear order by virtue of asymmetric c-command, "asymmetric c-command invariably maps into linear precedence" (Kayne 1994).

Based on his Linear Correspondence Axiom, LCA, Kayne proposes a uniform Specifier-Head-Complement (S-H-C) order for all languages. According to this assumption all other orders, like SOV,[1] VSO etc. are derived by movement.[2]

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[1] Amharic is assumed to be a uniformly head final language; the prepositions being analysed as case markers (see Halefom 1994 for relevant references).

[2] Chomsky also adopts Kayne's LCA with some modification but generally takes S-H-C as part of UG in his Bare Phrase Structure (see 1994:413–420) and following works. On the other hand, Fukui & Takano (1998) propose Spec-Complement-Head as the basic linear order taking the other orders to be derived. This assumption is clearly in contrast with

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Kayne (1994) proposes not only the universality of linear order but also the universality of adjunction and movement. According to him there is no right adjunction, "adjunction must always be to the left, never to the right" (p. XIII), and there is no rightward movement either, "any movement of a phrase upward to a c-commanding position must be leftward" (Kayne 1994:47).[3]

Kayne's proposal has inspired a lot of interesting new research. This paper can also be taken as an extension of those works. It's purpose is to examining Kayne's argument on "N-Final Relative Clauses" in languages mostly known as OV languages, with particular reference to Amharic. To this effect, the paper is organised as follows: Next to this introductory section, Kayne's (1994) account of N-final relative clauses will be briefly discussed. Basic empirical facts of the Amharic relative clause constructions will be presented in section 3. On the basis of the theoretical and empirical analysis made in section 2 and section 3, section 4 will discuss the matter in detail. Section 5 concludes this paper.

2. Kayne's proposal on the N-final relative clauses

Based on cases like (1) below, Kayne (1994) proposes an analysis of relative clause constructions which is compatible with his LCA.

(1) a. *I found the pictures of John's/ his
b. *I found the two pictures of John's/ his
c. I found the (two) pictures of John's that you lent me.

According to Kayne (1a) and (1b) are ungrammatical because "*the* cannot have a DP complement" (1994:86), while the grammaticality of (1c) results from *the (two) pictures of John's* not being a constituent, contrary to the case of (1a) and (1b). Thus *(two) pictures of John's that you lent me* is a complement of *the,* and this complement is headed by *that* with *the two pictures of John's* in the Spec of it. In short the determiner *the* selects as its complement CP rather than DP. Thus, with the N-initial relative clauses, N/ NP becomes initial as a result of the movement of NP from its base position to the Spec of CP.

(2) the[$_{CP}$ [$_{NP}$ picture]$_i$ [that [John saw [e]$_i$]]].

Based on this, Kayne assumes that universally relative clauses do not

Kayne's S-H-C order. However, both argue that like hierarchical structure linear order is also uniformly the same in the underlying structure of any human language.

It is to be noted that an alternative view to the universality of word order is that linear order is language specific rather than universal. According to this hypothesis there is no strict and rigid language faculty that determines a uniform linear order for all languages. This classical assumption is not without support currently (see for example Donati & Tomaseli 1997).

[3] See for recent counter arguments most of the papers in Beerman, LeBlank & Riemsdijk (1997).

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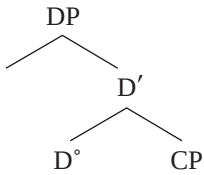
have a nominal head which they modify. For Kayne relative clauses can be considered as a complement of a determiner as in (3).

(3)



According to Kayne (1994:154) this analysis is supported by "cases of sentential embedding with an initial determiner, as in the Italian definite article + infinitive phrase *l'aver lui affermato* (the to-have he affirmed)". However, Borsley (1997:631) note that this example and other clauses which have similar constructions found in other languages, for example Polish, "have quite a different interpretation from that of a nominal phrase containing a relative clause, which has the same kind of interpretation as a simple nominal phrase with no relative clause". Borsley concludes that Kayne's account of relative clause construction is "unsatisfactory".[4] However, Borsley's analysis is based on VO languages which have N-initial complex NPs/DPs. I will examine here, mainly from an empirical point of view, how Kayne's account handles N-final complex NPs/DPs.

According to Kayne most OV languages, i.e. those which have N-final relative clause constructions, lack an overt determiner, and OV languages in general lack an overt C^o: For the OV languages which have an overt determiner, e.g. Amharic, he proposes the following structure (his illustration is based on the English data, "the picture that John saw").

(4) $[IP_j$ [the $[_{NP}$ picture] $[_{C^o}$ [e] $_j$]]]
(Kayne 1994:94).

According to this proposal the complement of D is CP. IP is moved to Spec of DP, but before it moves the complement of V, i.e. *picture,* has moved into Spec of CP. Since Amharic is an OV language, C^o is assumed to be phonetically null according to Kayne. However, consider the following example from Amharic, where *yä* is traditionally analysed as the complementizer.

(5) Johannes yä-ayy-ä-w sɨʔɨl
J. comp-see$_{perf(ective)}$–3ms$_s$–3ms$_o$ picture
"the picture that John saw"

[4] Platzack (1997/2000) also shows that Kayne's analysis of relative clause constructions has some problem such as associated with case. He also proposes an alternative analysis which is compatible with LCA. His proposal is very similar to the proposal of this paper.

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If *yä* is the complementizer, it is not in the position where it should be, following Kayne's analysis.[5]

(6) *[$_{DP}$ [$_{IPj}$ Johannes ayyäw] [$_{D'}$ [$_{D^o}$ e] [$_{CP}$ [$_{NPi}$ sɨʔɨl]
J. see$_{perf}$–3ms$_s$–3ms$_o$ picture

[$_{C'}$ [$_{C^o}$ yä-] [t_j . . .t_i]]]]]
comp

To get the complementizer in the right position, we may suggest that the segment C' is moved. But such a movement is illicit according to Kayne:

> A segment cannot be c-commanded, and if antecedent government strictly has c-command as a necessary component, then a segment cannot be antecedent governed and thus cannot be moved. In other words, a phrase that has something adjoined to it cannot be moved out by itself (1994:17).[6]

In Kayne's approach, *yä* cannot be a complementizer. Then the question arises, what the element *yä* which has been generally assumed to be a complementizer, really is (see for example Manyahlot 1977). According to Kayne "ya (sic.) cannot be a C^o. It may be an I^o past which at least the complements of V have raised" (Kayne 1994:157).

The reason for this conclusion is unclear, but possibly it emanates from the fact that Amharic has at least two distinct relative markers; one with the perfective aspect and one with the imperfective aspect. Since the element *yä* is found only with the perfective form of the verb, it could easily be mistaken for a tense marker.[7] However, if one strictly observes how tense is expressed in Amharic, the element *yä* has nothing to do with it. Tense, as a grammatical category, is expressed by auxiliaries, not by inflectional morphemes. The verb doesn't inflect for tense at all. These auxiliaries are *näw*, *allä* and *näbbär*. Whereby *näw* and *allä* are used to

[5] Note that most of the complementizers in Amharic are neither at the final nor at the initial position. They are prefixed to the verb following the subject and its complements. In previous generative works all complementizers found in this language are assumed to be at the final position in the underlying representation. The reason is both theoretical and empirical as Yimam (1987 Ethiopian Calendar/ E.C.) points out. The theoretical one is that, since the language is characterised by head final and Comp is the head of CP then it has to be final. The empirical one is the existence of clauses, like (i) below, with head final word order.

(i) [$_{CP}$ [$_{IP}$ Kasa yɨ-hed] [$_{C^o}$ zänd]] al-täfäqqädä-m
K. 3ms$_s$-go$_{imp}$ comp neg-allowe$_{per}$-neg
"It is not allowed for Kasa to go" (lit. "It is not allowed that Kasa goes")

(i) will be ungrammatical if C^o is placed in front of IP as in (ii). (Note that there are a number of complementizers in this language but *zänd* is the only one that has this property).

(ii) * [$_{CP}$[$_{C^o}$ zänd] [$_{IP}$kasa yɨ-hed]]

[6] According to Kayne a segment cannot enter into a c-commanding relation: "X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y"(1994:16).

[7] Perfective aspect has an implied meaning of past by its inherent nature (cf. Comrie 1986, Bybee & Dahl 1989).

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express non-past, *näbbär* is used to express past (cf. Goldenberg 1964, Awgichew and Meyer to appear). Note that in this language subordinate/ embedded clauses have no tense marker at all. The time of reference they denote is determined by the tense of the main clause.

A crucial point is that if the element *yä* is a tense morpheme, at least it has to be found in any sentence regardless of its type. However, this is not the case. This element is never found attached to the verb in simple sentences or in main clauses. It appears only in complex sentences (see for the detailed analysis of the morphology of the verb Yimam 1987 E.C. and Leslau 1995 among others).

Let's turn to Kayne's other statement. Kayne extends his proposal to all languages which have the structure of N-final relative clauses (i.e. OV languages), "in languages where a relative particle follows the relative proper and precedes N (or D), that relative cannot be C^o, but only some kind of I (whose complement has raised to its specifier)" (1994:157). As mentioned above, this conclusion doesn't sound attractive, at least for Amharic. It is also unattractive to conclude with Kayne (1994:93) that "N-final relatives never display a complementizer that is identical to the normal complementizer of complementation". As the following example shows, *yä* is used as a complementizer also outside the realm of relative clauses:

(7) [$_{IP}$ e [$_{CP}$ Saba worq-u-n yä-šäT-äčč-ɨw]
S. gold-def-Acc comp- $sell_{per}$–$3fs_s$–$3ms_o$
yɨ-mäsl-all]
$3ms_s$-seem-$Aux_{pre(sent)}$
"It seems that Saba sold the gold"

The CP in (7) is not a relative clause while the complementizer is *yä,* which is identical to the complementizer of the relative clause. Let's consider other variants which have the same function in this language but not mentioned in Kayne's work. These are *yämm* and *ɨmm* which are found with the verb on the imperfective form. Consider the following:

(8) Johannes yämm/ɨmm-iy-ayy-äw sɨʔɨl
J. comp-$3ms_s$-$see_{imp(erfective)}$–$3ms_o$/def picture
"The picture that John sees/ will see"

Like *yä*, *yämm* and *ɨmm* can also occur in other kinds of embeded clauses.

(9) [$_{IP}$ e [$_{CP}$ Saba worq-u-n yämm/ɨmm-ɨt-šäT-äw] yɨ-mäsl-all]
S. gold-def-Acc comp-$3fs_s$-$sell_{imp}$–$3ms_o$ $3ms_s$-seem-Aux_{pre}
"It seems that Saba will sell the gold"

The complementizers in (9) and the complementizers in (8) are identical,

[8] Examples in (10) and (11) are taken from Leslau (1995).

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just like the complementizer in (7) and the one in (5). Consider also other constructions like those in (10) and (11) below.[8]

(10) a. yämm-i-zänb yɨ-mäsl-all
comp-3ms$_s$-rain$_{imp}$ 3ms$_s$-seem$_{imp}$-Aux$_{pre}$
"It seems that it will rain"

b. [$_{DPi}$ däbdabe-w] [$_{CP}$ PRO$_i$ [$_{CP}$ wädä bet
letter-def to house

s-ɨ-maTa] yä-Täff-a-bɨññ] yɨ-mäsl-all.
while-1s$_s$-come$_{imp}$ comp-lose$_{per}$–3ms$_s$–1s$_{IO}$
3mss-seem$_{imp}$-Aux$_{pre}$
"I think that I lost the letter on my way home"

c. kä-zih hɨkmɨna bähwala märamäd yämm-i-ččɨl
from-this treatment after to-walk comp-3ms$_s$-able$_{imp}$

a-y-mäsl-äññ-ɨm
neg-3ms$_s$-seem$_{imp}$–1s$_{IO}$-neg
"I don't think that he will be able to walk after this treatment"

d. bäTam yä-tammäm-ä yɨ-mäsl-all
very comp-sick$_{per}$–3ms$_s$ 3ms$_s$-seem$_{imp}$-Aux$_{pre}$
"He appears to be sick" (lit. "It seems that he is sick")

In all the examples above the complementizers are identical to the complementizers of relative clauses. This seems true for those which are constructed from the verb *mässälä* as in the above examples having the meaning of *seem, think, look like, appear* in English. In addition to the constructions given above, it is possible to have *yä* in other types of subordinate clauses.

(11) a. zare yä-bälla-hu-t-n näggär-ku-h?
today comp-eat$_{per}$–1s$_s$–3ms$_o$-foc tell$_{per}$–1s$_s$–2ms$_o$
"Did I tell you that what I ate today?"

b. kä-säw fit yä-mätta-ø-h-ɨn
from-man-front comp-hit$_{per}$–3ms$_s$–2ms$_o$-foc at-tɨ-rsa

neg-2ms$_s$-forget$_{imp}$
"Don't/ You must not forget that he hit you in public"

c. s-al-ø-aTäfa kä-sɨra yä-täbarrär-ku-t
for-neg-1s$_s$-(make fault)$_{imp}$ from-job comp-fired$_{per}$–1s$_s$-foc?

tɨzz yɨ-l-äññ-all
remember$_i$ 3ms$_s$-t$_{i(imp)}$–1s$_o$-Aux$_{pre}$
"I remember that I was fired from (my) job for no fault"

d. gänzäb s-ɨ-Täyɨq-ɨh yä-käläkkäl-k-äññ-n
money when-1s$_s$-ask$_{imp}$–2ms$_o$ comp-refuse$_{per}$–2ms$_s$–1s$_o$-foc

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räsa-h ?
$\text{forget}_{\text{per}}$–$2\text{ms}_{\text{s}}$
"Did you forget that you refused me when I asked you for money?"

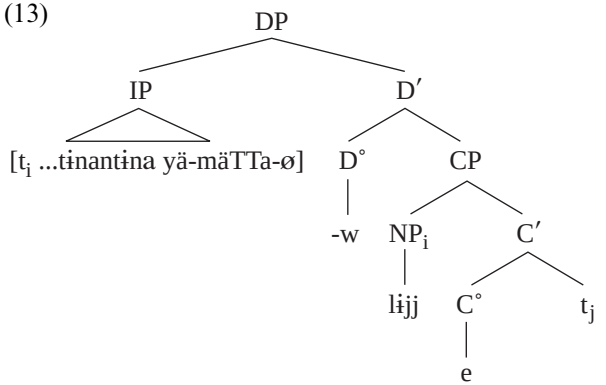
In (11) the equivalent English translation for the complementizer *yä* is *that*. As far as the above discussion is concerned, this element is clearly a complementizer. The same is true for the other variants discussed above.[9]

There are other points that need further discussion here. In Amharic the definite marker is a kind of suffix which is found attached to the relative verb. Following Halpern (1995) one can give this element the status of a clitic. What concerns us here is, however, how this element gets attached to its host.

(12) ẗinanẗina yä-mäTTa-ø-w l̈ijj
yesterday comp-$\text{come}_{\text{perf}}$–$3\text{ms}_{\text{s}}$-def boy
"the boy who came yesterday"

Let's assume, only for this discussion, that Kayne is right in taking *yä* as some element of an I^{o} while C^{o} is empty. Then the analysis for (12) will be (13) according to Kayne's proposed structure.

(13)



Note that here *w* is the head of DP whereby the verb is found in the specifier of it under the projection IP. The only possibility for these elements to be adjoined is by assuming morphological merger of the sort proposed by Julien (2000). Julien examines some basic theories of prosodic word formation, i.e. syntactic affixation by head movement

[9] The assumption that *yä* and the other variants which I considered here as complementizers are relative pronouns would not bring the analysis closer to Kayne's, since, according to him; "N-final relatives lack relative pronouns" (1994:93). Note also that my discussion can be extended to other Ethiopian languages. Many Ethiopian OV languages have complementizer along with the relative CP. Furthermore aspect determines the shape of the complementizers and the shape of other affixes, such as agreement in Amahric. This is also the case for most of the Ethiopian languages.

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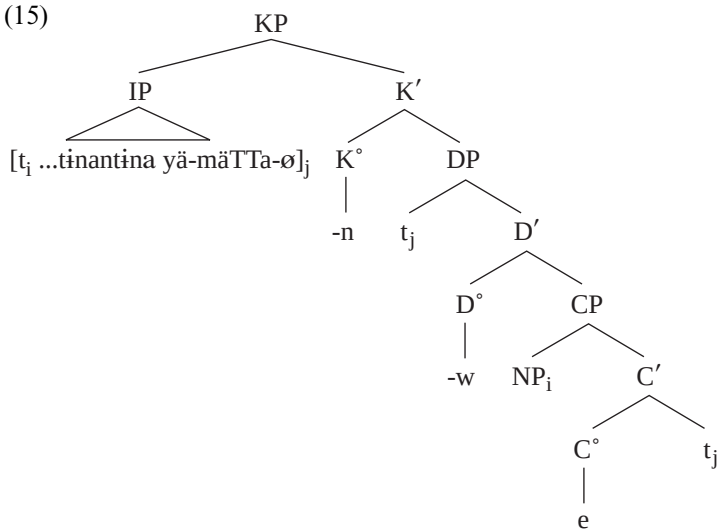
(see for example Baker 1988), and morphological merger of the sort proposed by Bobaljik (1995) see also Marantz (1988, 1989) and Halle & Marantz (1993), and she further proposes that morphological merger can take place between adjecent maximal and minimal projections. That means that Spec-head can form a single prosodic word. However, although, Julien's (2000) proposal seems handle cases like (13) there will be a problem with cases like presented below.

(14) tinantina yä-mäTTa-ø-w-n lijj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc boy
"the boy who came yesterday"

As we can see in (14) the accusative marker is attached to the verb next to the definite marker. If we assume following Halefom (1994) that the Amharic DPs are projections of KPs (case phrase), by analogy the structure in (14) will be the structure depicted in (15):[10]

(15)



Let's assume first here that IP can merge with K° following Julien (2000) as mentioned above. If this is the case the other natural way is to assume, following Bobaljik (1995), that the accusative marker and the determiner are merged together without any movement taking place. However, this merger is illicit in Amharic.[11]

[10] Note that, if case is a matter of nouns or NPs and if it has nothing to do with the whole DP then it is not possible to assume DP as the complement of KP as depicted in (15). See Guisti (1995) for analysis very similar to the one outlined in (15).

[11] Though this kind of merger is not responsible for the Amharic affixation, it is attested in many languages among them Berber (cf. Ouali 1999).

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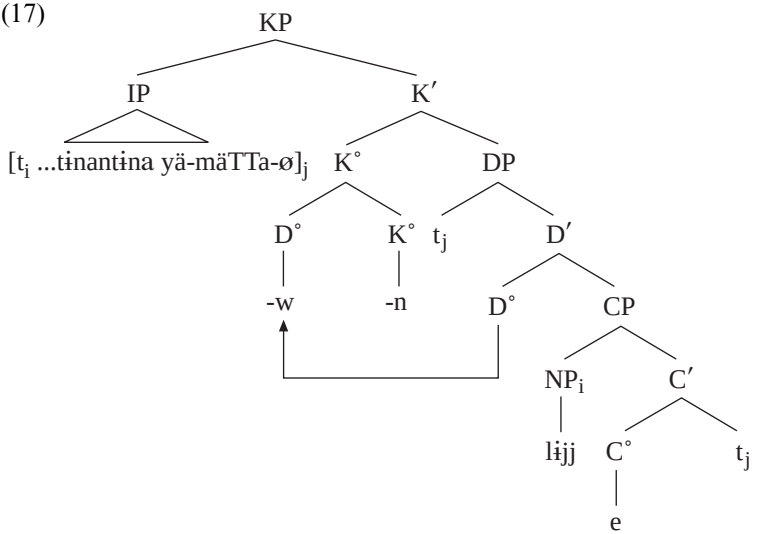
(16) *tɨnantɨna yä-mäTTa-ø-n-w lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc boy

On the other hand, one may assume that D^o is incorporated in K^o by head movement in the sense of Baker (1988) and that the complex D^o+K^o merges with the relative verb as depicted in (17). However, this hinges on the unsupposed assumption that D^o moves to K^o and also that morphological merger is possible in this position (contradicting the attested merger in many languages) after the movement of D^o-to-K^o and not possible when D^o remains in situ. However, to the best of my knowledge, such kind of movement and merger is not attested in any language.

(17)



In line with Kayne's (1994) proposal a straightforward analysis for the Amharic relative clause construction would be to move the verb via I^o and C^o to the head K^o. However, C^o is a prefix in Amharic. So, if the verb moves for incorporation it would have to adjoin to the right of C^o, violating Kayne's adjunction principle. In addition there are further problems. According to Kayne (1994:158), although what moves to the relative Spec, CP is not always an NP, moving a definite DP to this position is impossible. However, consider the following:

(18) tɨnantɨna yä-mäTTa-ø-w wäfram-u lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def fat-def boy
"the fat boy who came yesterday"

Since *wäfram-u lɨjj* is a constituent as in *[$_{DP}$wäfram-u lɨjj] maTTa* '[fat-the boy] came'; the DP in (18) must be in Spec of CP if Kayne's proposal is right.

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(19) CP [DP_i wäfram-u lɨjj] [C′ . . .t_i

Thus, as far as the above discussion is concerned, it doesn't seem to be attractive analysis of Amharic to treat relative clause constructions as having no "head" outside the relative CP, i.e. other than the determiner, and moving NP to Spec CP. Thus, following Borsley (1997), it seems reasonable to conclude that Kayne's proposal that NP is raised to Spec CP, is also unsatisfactory for N-final relative clause constructions.[12]

The reminder of this paper will deal with the question whether there is any analysis of the Amharic relative clause constructions that is compatabile with Kayne's theory. First we will take a closer look at some data that indicate how complex NPs/DPs are constructed in this language.

3. The facts

3.1 *Relative clause constructions in Amharic*

In Amharic the subject, the direct object or the indirect object of a clause can be expanded with a relative clause. The relative verb agrees in *Φ*-feature (in the Amharic case in gender, person and number) with the head noun and "like the ordinary verb, the relative verb takes the object suffix pronouns (direct or indirect), and the prepositional suffixes" (Leslau 1995:88). I will discuss each case briefly below.

3.1.1 *The subject of a clause as a qualified noun*

The subject of a relative clause can be the "head" of a complex NP (DP) in Amharic as shown in (20):

(20) Kasa-n yä-däbäddäb-äčč-ɨw set
K.-Acc comp-hit_{perf}–$3fs_s$–$3ms_o$/def woman
"The woman who hit Kasa"

As one can see in (20) the "head" noun is the subject of the relative clause. This can be easily identified by the suffix pronoun (agreement feature) which is attached to the relative verb. Agr_s of IP in (20) is 3fs and the "head" noun is also 3fs. If the "head" noun is changed, then the agreement feature in IP is also changed. See the following:

(21) Kasa-n yä-däbäddäb-ä-w säw
K.-Acc comp-hit_{perf}–$3ms_s$–$3ms_o$/def man
"The man who hit Kasa"

(22) Kasa-n yä-däbäddäb-u-t säw-očc
K.-Acc comp-hit_{perf}–$3Pl_s$–$3ms_o$/def man-Pl
"The men who hit Kasa"

[12] As I pointed out above Borsley (1997) concludes that Kayne's theory is unsatisfactory for relative clause constructions.

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The head nouns in (20), (21) and (22) are different: In (20) it is feminine, in (21) it is masculine (but in both cases singular) while in (22) it is plural. The subject agreement features in their respective relative clauses are also the same.

3.1.2 *The object of a clause as a qualified noun*

In Amharic a verb does not only inflect for subject and object agreement, but also for indirect object agreement. This means that there is agreement between the subject and the verb (obligatory) and the direct and indirect objects (optionally, depending on certain factors). However, if the affix for the identification of the indirect object (PP) is attached to the verb, "the direct object affixes are not available for the identification of object NPs" (Yimam 1994:1133). The affixes for indirect objects, especially for the identification of the prepositions, are *b* and *l,* and there are also additional affixes for the NP (of PP)[13] (see the following example).

(23) lä-saba mäšhaf-u-n šäT-ku-lat
to-S. book -def-Acc sell_{per}–1s_{s}–3fs_{IO}
"I sold the book to Saba"

Note that here Amharic is a pro-drop language. Due to its rich agreement morphology not only subjects but also direct and indirect objects can be phonetically null. In such cases, however, there has to be a proper agreement affix which identifies the null argument. For example, in (23) and (24) the subject *I*, in (24a) the direct object *it* and in (24b) the indirect object *to her* are phonetically null elements.

(24) a. säbbär-ku-t
$\text{break}_{\text{per}}$–$1\text{s}_{\text{s}}$–$3\text{ms}_{\text{O}}$
"I broke it"
b. mäšhaf-u-n šäT-ku-lat
book -def-Acc sale_{per}–1s_{s}–3fs_{IO}
"I sold the book to her"

Having this in mind, let's see how the object of a preposition, and the direct object can be qualified.

(25) mäšhaf-u-n yä-šäT-ku-lat set
book -def-Acc $\text{comp-sell}_{\text{per}}$–$1\text{s}_{\text{s}}$–$3\text{fs}_{\text{IO}}$ women
"A women that I sold the book to"

When the direct object is the "head " of the relative clause, the structure of the clause is similar to (25) except it's position with respect to PP.

[13] In fact *b* and *l* are sometimes referred to as having mulifactive and benifactive interpretations respectively.

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(26) lä-saba yä-šäT-ku-t mäšhaf
to-S. comp-sell$_{per}$–1s$_s$–3ms$_o$ book
"a book that I sold to Saba"

3.2 *Further issues*

In the analysis above I have shown how the subject, the direct object and the indirect object can be relativized. However, in all the cases the qualified noun with its relative clause must function as the subject of the matrix clause. When the complex DP is a direct object in a sentence it will be marked for accusative case and if it is an indirect object (IO), it will be marked by an IO marker.[14]

If the complex DP is an instance of PP, the P is prefixed to the relative verb. When this is the case, the relative marker of the perfective aspect, i.e. *yä* and the variant of the relativizer of the imperfective form, i.e. *yämm*, are omitted. Only *ɨmm,* the other variant of the relative marker of the imperfective form, is found along with the P, as is shown below.

(27) a. lä-lɨjj-u
to-boy-def
"to the boy"
b. anbäsa yä-gäddäl-ä-w lɨjj
lion comp-kill$_{per}$–3ms$_s$–3ms$_o$/def boy
"the boy who killed a lion'
c. anbasa lä-(*yä-) gäddäl-ä-w lɨjj
lion to-(comp-) kill$_{per}$–3ms$_s$–3ms$_o$/def boy
"to the boy who killed a lion"
d. anbäsa yämm/ɨmm-i-gädl-äw lɨjj
lion comp-3ms$_s$-kill$_{imp}$–3ms$_o$/def boy
"the boy who kills/ will kill a lion"
e. anbäsa lä-(*yämm) ɨmm-i-gädl-äw lɨjj
lion to-comp-3ms$_s$-kill$_{imp}$–3ms$_o$/def boy
"to the boy who kills/ will kill a lion"

Furthermore, if the complex DP is the direct object of a sentence, its marker along with the determiner is found attached to the modifiers rather than to the head noun. Actually this is not unique for relative clauses; it is also common for other modifiers of nouns like APs. I will illustrate these points below.

(28) a. lɨjj-u-n agäññä-hu-t
boy-def-Acc find$_{perf}$–1s$_s$–3ms$_o$
"I met/ found the boy"

[14] Note also that there is no phonetically realised nominative marker in this language.

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b. [$_{CP}$ tɨnantɨna yä-mäTTa-ø-w-n] lɨjj agäññä-hu-t
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc boy find$_{perf}$–1s$_s$–3ms$_o$
"I met the boy who came yesterday"

c. tɨlläq-u-n lɨjj agäññä-hu-t
big-def-Acc boy find$_{perf}$–1s$_s$–3ms$_o$
"I met the big boy"

d. wäfram-u-n tɨlläq-u-n lɨjj agäññä-hu-t
fat-def-Acc big-def-Acc boy find$_{perf}$–1s$_s$–3ms$_o$
"I met the fat big boy"

e. anbäsa yä-gäddäl-ä-w-n lɨjj agäññähu-t
lion comp-kill$_{perf}$–3ms$_s$–3ms$_o$ /def-Acc boy find$_{perf}$–1s$_s$–3ms$_o$
"I met the boy who killed a lion"

As mentioned above and illustrated in (28), if the head noun has any kind of complement and modifier, the definite determiner *-u* and the accusative case marker *-n* will be found attached to them, and the head cannot realise its determiner and accusative marker. If it is a subject, only the determiner will be found attached to the complemets and the modifiers since there is no nominative case marker. This is also the case in standard Arabic and Hebrew (cf. Siloni 1997). Siloni describes this as an agreement between the head noun and its complement and modifier. According to her, every modifier and complement of a head noun has to project as DP. This should hold for Amharic as well, since it displays the same facts. Following Siloni (1997) and many others, I will, on the assumtion that every modifier and complement of NP can possibly be DPs, examine an alternative analysis of the Amharic noun phrases in general and of the relative clauses in particular in the following section. It ought to be mentioned that this analysis is compatible with the LCA.

4. The proposal

In this section, I will suggest a structural representation of relative constructions in Amharic. The general analysis is outlined in 4.1. In 4.2., I will show how multiple relative clause constructions will be handled with the structure proposed in 4.1. In 4.3. and 4.4. I will discuss in general terms some important issues related to case, movement and the relation of AP-preposing and definiteness.

4.1 *The structural representation of relative Ccauses*

If the analysis in this paper is correct, the only possible alternative to Kayne's raising analysis, see Kayne (1994:155), allowed by the LCA for a relative clause, is treating it as a complement of N^o.

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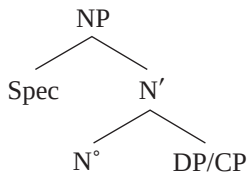
(29)

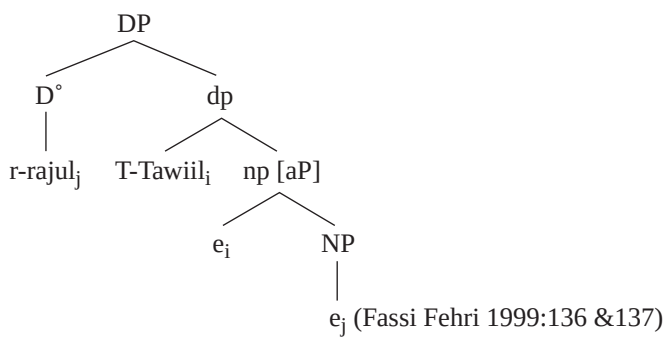


If I am on the right track, in Amharic N becomes final because the relative clause is moved from its base position to the Spec of some functional category which c-commands NP. The nature of this functional projection will be discussed below.

As we have seen above all modifiers can (possibly) have a definiteness marker. According to Fassi Fehri (1999) there are functional definiteness Agr categories in the extended projection of NP, which are represented in his work as dp. These dps c-commmand NP and other functional categories, like the ones that take APs in their specifier (cf. Cinque 1994, Holmberg 1993, among others), here represented as aP, following Cinque (1994), to denote functional adjectival categories. Fassi Fehri (1999) proposes that in Arabic these adjectival modifiers are moved to the functional definiteness Agr to check their definiteness feature in Spec-head fashion.

(30) a. r-rajul-u T-Tawiil-u
the-man-nom the-tall-nom

b.



(Fassi Fehri 1999:136 &137)

Rather than taking the definiteness Agr functional category as dp I will represent it here as Agr_dP for ease. With this assumption, a relative clause in Amharic has to move to Spec of Agr_d in order to check the definiteness feature.

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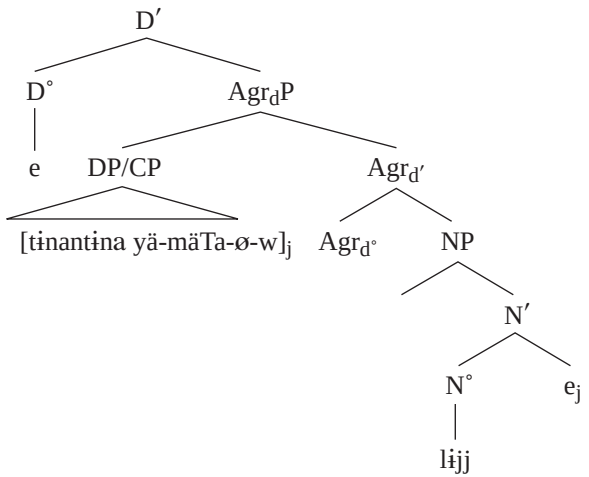
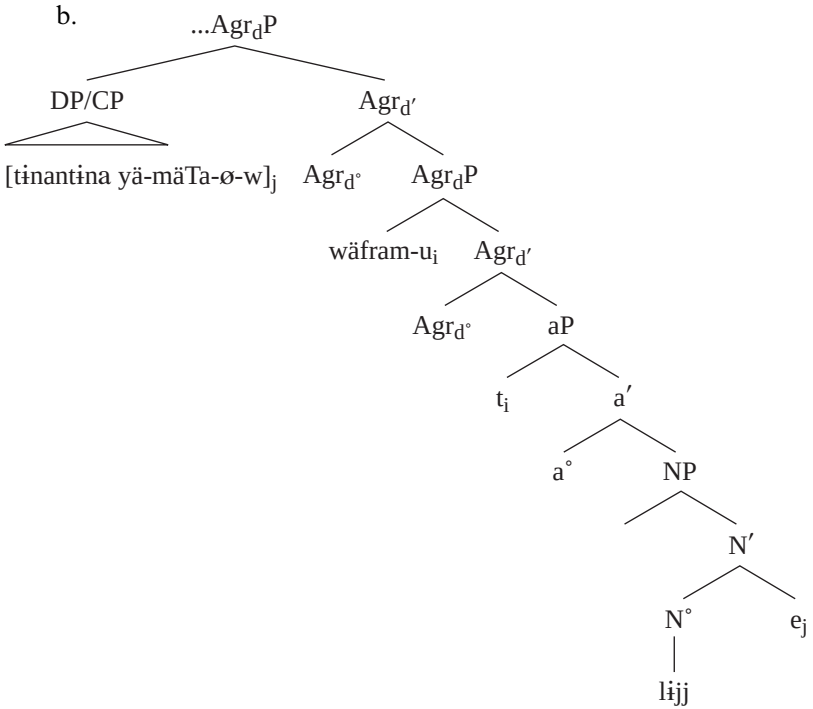
(31)



Observe that if there is an adjective as in (32a) the structure will be (32b).

(32) a. t̶i̶nant̶i̶na yä-mäTa-ø-w wäfram-u l̶i̶jj
yesterday comp-come$_{perf}$–3ms$_s$-def fat-def boy
"the fat boy who came yesterday"

b.



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The movement of the relative clause across the adjective is a violation of Relativized Minimality (Rizzi 1990).[15] There might also be a problem with Chomsky's Shortest Movement Principle which I will leave unaccounted here but see 4.4.1.

Note that here, the other alternative to the above analysis is that considering D as filled by the overt determiner and moving the relative CP to the Spec of it. Then, the merger of the relative verb with the determiner will follow from Julien (2000). That means that only APs need to move to Agr_dPs. However, though, this analysis seems promising the determiner will be stranded if there is a movement of the relative CP to further functional category which is the case in Amharic (cf. 4.3). This is because in the definite construction always the relative CP must have the definite marker. Thus moving the relative CP to Spec of Agr_d seems the right analysis.

However the proposed analysis faces one major problem which I don't have a satisfactory answer to: Why has the relative CP moved to the higher Agr_dP position? I will suggest that there might be a feature difference between Agr_dPs which host APs and CPs in their specifiers. If this is true, i.e. if not all Agr_dPs are similar, it will be an easy task to explain why the relative CP moves to the higher Agr_dP, given a proposal of feature checking like Ferguson (1996). However, for the time being I don't know what kind of feature that brings a difference between those Agr_dPs.

4.2 *On multiple relative clauses*

In this section I will examine how the existence of multiple relative clauses can be handled with the above proposal, i.e. with a proposal which treats a relative CP as a complement of N. According to Platzack (1997) having more than one relative clause in the complex NP is not a problem if we treat the coordinated items as the specifier and the complement of the Coordinator (Platzack 1997:87). Platzack analysis is, as he also notices, in line with Kayne's (1994) account of coordination. Platzack provides empirical support for his analysis like (33b) and (34) below.

(33) a. Den karlen som du pratade med som hade mörkt hår var trevlig
the man-the that you talked with that had dark hair was nice
b. Den karlen som du pratade med och som hade mörkt hår
the man-the that you talked with and that had dark hair
var trevlig
was nice

[15] Note that it is irrelevant for the present discussion whether the relative clause lands in Spec N and leaves a trace.

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(34) Min far, som du träffade igår, och som du gillade, . . .
my father, that you met yesterday and that you liked,
(Platzack 1997:87)

Although it is possible in Amharic to articulate, say, two relative clauses without a coordinator, the construction with a coordinator is far more acceptable as shown in (35).

(35) a. ?tɨnantɨna yä-mäTa-ø-w zare yä-hed-ä-w lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def today comp-go$_{perf}$–3ms$_s$-def boy
"the boy who came yesterday and who went today"
b. tɨnantɨna yä-mäTa-ø-w-na zare yä-hed-ä-w lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def-and today comp-go$_{perf}$–3ms$_s$-def boy
"the boy who came yesterday and who went today"

4.3 *The structural representation of case*

When the complex DP is the object, carrying a phonetically realised accusative case marker, all the modifiers can have this case marker too as depicted in (36).

(36) tɨnantɨna yä-mäTa-ø-w-n wäfram-u-n lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc fat-def-Acc boy
'The fat boy who came yesterday"

The spreading of case to all the modifiers as in (36) raises the question how case is structurally represented in this language. I will tentatively address this problem in more general terms in this section.

If cases have to project on their own right (cf. Halefom 1994, Guisti 1995 and see also the above Amharic data), the projection of a case phrase (KP) has to be similar to DPs, i.e. there is not only a KP in the extended projection of NP but there is also a series of case Agr projections, represented as Agr$_k$P, analogous to the series Agr$_d$P projections. Thus, I will assume (37) to be the structural representation of (36).

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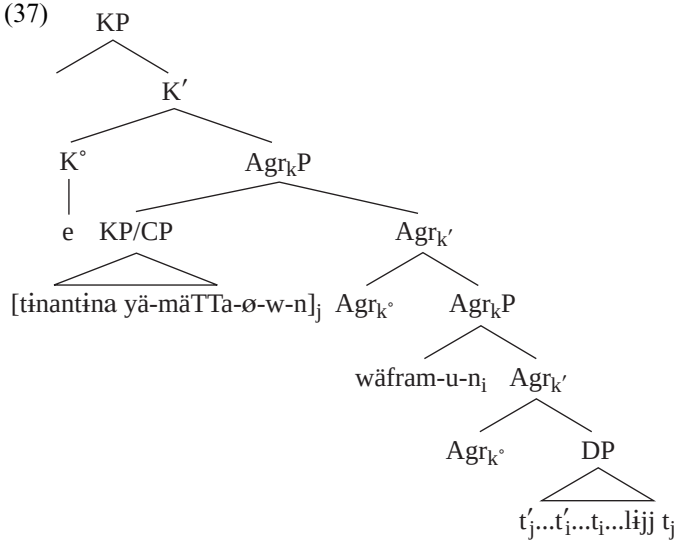
(37)



This analysis is not as radical as it seems. It is very similar to Fassi Fehri's (1999) proposal for the Arabic DP. The difference between my analysis and Fasi Fahri's is that here cases are projected as KP while in Fasi Fahri's they are projected as DP.

4.4 *Some remaining issues*

In this section I will discuss two major points which I didn't address properly in the above sections. One is related to the Relativized Minimality violation observed above. I will address this issue in more general terms in 4.4.1 below. The other is about the relation of AP-preposing and definiteness which has very interesting nature in Amharic.

4.4.1 *A relativized minimality violation*

As I mentioned above the analyses in (32) and (37) violate Relativized Minimality.[16] It would not help to replace Relativized Minimality with Chomsky's Shortest Movement principle, which assumes the notion of equidistant.[17] According to the notion of equidistant A and B can be considered as equidistant to C if they are in the same minimal domain. (To avoid unnecessary complication we can say that a minimal domain of

[16] According to Rizzi's Relativized Minimality an XP which moves to form an A-chain cannot skip an intermediate A-position. Correspondingly the same is true for head movement and movement which takes place to form an Ā-chain like wh-movement.

[17] Shortest Movement

"If α, β are in the same minimal domain, they are equidistant from γ" (Chomsky 1995:184). Note that the page reference of Chomsky (1993) here and through out this paper is Chomsky (1995).

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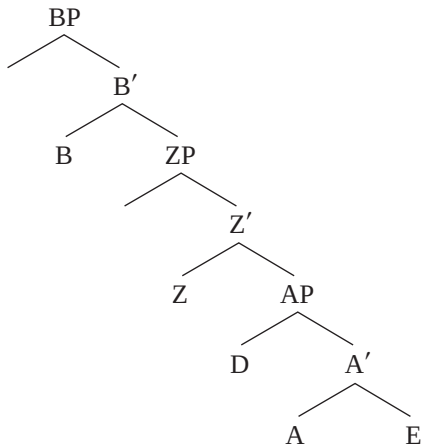
a certain projection is its complement and specifier.) Let's see how this notion works with the following example.

(38)



In (38) the minimal domain of A is E and D. If A moves to Z then the minimal domain of (A, t_i); i.e. A and the trace of A; is E, D, and Spec of Z. If the A-Z complex moves to B (let's assume this to be t'_i) then the minimal domain of (A-Z, t'_i, t_i) is E, D, Spec of Z and Spec of B. This in effect means that if A moves to Z, E can move to Spec Z crossing D without violating Relativized Minimality (more appropriately without violating Chomsky's Shortest Movement) because Spec Z and D is equidistant to E since they are in the same minimal domain of the chain formed by the moved A and its trace. If the A-Z complex moves further to B then D can also move across Spec Z (assume Spec Z is filled by the moved element E) to Spec B because Spec B and Spec Z is equidistant to D since they are in the same minimal domain of the chain formed by (A-Z, t'_i, t_i).

Unfortunately, applying the notion of equidistant to the above data is entirely impossible. This is because the notion of equidistant requires the movement of the head noun which does not move in Amharic: it stays in situ and never precedes its modifiers. Consider the following examples:

(39) a. tɨnantɨna yä-mäTa-ø-w wäfram lɨjj
yesterday comp-come$_{perf}$–3ms$_s$ fat boy
"The fat boy who came yesterday"
b. *tɨnantɨna yä-mäTa-ø-w [lɨjj]$_i$ wäfram t_i

(40) a. tɨnantɨna yä-mäTa-ø-w wäfram-u lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def fat-def boy
"The fat boy who came yesterday"
b. *tnantɨna yä-mäTa-ø-w [lɨjj]$_i$ wäfram-u t_i

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(41) a. tɨnantɨna yä-mäTa-ø-w-n wäfram lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc fat boy
"The fat boy who came yesterday"
b. *tɨnantɨna yä-mäTa-ø-w-n [lɨjj]$_i$ wäfram t$_i$

(42) a. tɨnantɨna yä-mäTa-ø-w-n wäfram-u-n lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc fat-def-Acc boy
"The fat boy who came yesterday"
b. *tɨnantɨna yä-mäTa-ø-w-n [lɨjj]$_i$ wäfram-u-n t$_i$

A reviewer of this article suggests that if there is a possibility to consider relative CPs as projected in the Spec of functional projections with the same manner of Cinque's (1994) proposal to APs (see also Holmberg 1993, Androutsopoulou 1996 among others). I'm not going to list down all the disadvantageous with such kind of analysis. However, one has to notice that whether a relative clause is analysed as projected in a functional projection or as a complement of N there will be always a Relativized Minimality violation. This is for two reasons.

Firstly, as mentioned above, all modifiers of the "head" noun such as APs can share the definiteness and case markers. Thus, if cases and determiners have to project on their own right and if these features have to be checked (see for example Fassi Fehri 1999) there will be a movement of a modifier XP across another XP. Secondly, if there are, for example, three APs found in a complex NPs/DPs, all the existing APs (cf. 43c) or one of them (cf. 43a) or two of them (cf. 43b) can be focalized.[18]

(43) a. [häyläña-w]$_i$ tɨnantɨna yä-mäTa-ø-w [e]$_i$ tɨllɨq-u
aggressive-the yesterday comp-come$_{perf}$–3ms$_s$-def-Acc big-the
wäfram-u lɨjj
fat-the boy
b. [tɨllɨq-u]$_j$ [häyläña-w]$_i$ tɨnantɨna yä-mäTa-ø-w [e]$_i$ [e]$_j$ wäfram-u lɨjj
c. [wäfram-u]$_k$ [tɨllɨq-u]$_j$ [häyläña-w]$_i$ tɨnantɨna yä-mäTa-ø-w [e]$_i$ [e]$_j$ [e]$_k$ lɨjj

In (43 b & c) the movement of the adjectives one over the other violates Relativized Minimality. That means that the problem of Relativized Minimality violation cannot be solved if we assume that relative clauses are projected in the Spec of functional projections in Amharic. Rather, if my analysis in this paper is on the right track, considering Relativized Minimality or other variants of it as universal principles of UG has to be re-examined in detail (see also Ferguson 1996, Baker and Hale 1990 among others).

[18] These kinds of structures are semantically different to the ones with normal word order in that there is emphasis on the adjectives.

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4.4.2 *Note on the preposed APs*

In Amharic there is a very interesting relation between AP-preposing and definiteness. This relation, I think, may give us a better understanding of the complex nature of Amharic relative clause construction. I will discuss this issue in this section.

In Amharic, as mentioned above, the unmarked order for the complex DP/ NP is CP (relative Clause)-AP -N(P). Recall that in this language AP/ DP preposing is possible as in (44) below.

(44) [wäfram-u]$_i$ tɨnantɨna yä-mäTTa-ø-w [e]$_i$ lɨjj
[fat-def] yesterday comp-come$_{perf}$–3ms$_s$-def boy

And, note also that in Amharic some times all modifiers are marked for definiteness (cf. 45a) and sometimes only the left most modifier is marked, as in (45b).

(45) a. tɨnantɨna yä-mäTTa-ø-w [wäfram-u] lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def [fat-def] boy
b. tɨnantɨna yä-mäTa-ø-w [wäfram] lɨjj
yesterday comp-come$_{perf}$–3ms$_s$-def [fat] boy

However, an AP can be preposed if it is marked for definiteness.

(46) a. [wäfram-u]$_i$ tɨnantɨna yä-mäTTa-ø-w [e]$_i$ lɨjj
[fat-def] yesterday comp-come$_{perf}$–3ms$_s$-def boy
b. *[wäfram]$_i$ tɨnantɨna yä-mäTa-ø-w [e]$_i$ lɨjj
[fat] yesterday comp-come$_{perf}$–3ms$_s$-def boy

Let's assume that there is a structural difference between (45a) and (45b). Let's say that in (45a) AP moves to Spec Agr$_d$ to check the definiteness feature overtly while in (45b) this movement is delayed until LF as demanded by procrastinate. This means that if there is no phonetically realised D in AP, we don't expect movement to take place to Agr$_d$P overtly; this movement is covert thus AP remains in situ, i.e. in Spec of aP. If this assumption is on the right track, we have an explanation for the ungrammaticality of (46b).

Recall that, since any preposed AP in Amharic must be focused, it is natural to assume that AP-preposing is movement to an operator layer. Recall also the assumption in this paper is that any modifier is a projection of DP;[19] and any modifier definite DP has to check the definiteness Agr feature overtly or covertly, at the appropriate position. AP-preposing is overt crossing the definiteness Agr projection, i.e. Agr$_d$P,

[19] This assumption could not be considered as plausible, I guess. In Fassi Fehri (1999) and in Siloni (1997) APs are also understood as complements of DPs. Julien (2001) also assume that in Scandinavian languages APs can be considered as complements of DegPs (Degree Phrases) and DegPs in turn can be considered as complements of AgrPs where AgrPs, in attributive adjectives, contain definite/ indefinite feature.

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will be overt too. Thus this movement triggers a phonetically realised D. The case seems to work both ways; a strong feature triggers overt movement; overt movement in turn requires the moved element to have strong feature. This means that any preposed modifier across the definiteness Agr projection has to have a phonetically realised D. This seems to be a good explanation since the only AP-preposing which is allowed in Amharic is when there is a phonetically realised D in the preposed AP, as in (46a), even if both forms (45a & b) are grammatical when there is no movement of AP.[20]

If this explanation is correct, i.e. if the overt movement of AP to Agr_dP is strongly associated with the existence of overt morphology on the moved element, what about the movement of relative CP to Agr_dP? Something similar has to be said. For example, in the case of the indefinite DP in Amharic there is no morphologically realised indefiniteness agreement feature which is realised in all modifiers like the case of definiteness feature that we have seen above.

(47) a. [tinantina yä-mäTa-ø]$_i$ lijj t_i
yesterday comp-come$_{perf}$–3ms$_s$ boy
"a boy who came yesterday"
b. *lijj tinantina yä-mäTa-ø

If the natural place of a relative CP is in the complement position of N whenever it has no overt determiner, then, according to the above proposal, it has to stay in situ since its movement can be delayed until LF. But this is not the case in Amharic, as the ungrammaticality of (47b) shows. The relative CP is always found in a pre-N position. This means that the movement of the relative CP is always overt.

There are two possible alternative ways to account explanations for this. One is to assume, as mentioned above, that not all Agr_dPs are similar and that the one which hosts CP has a strong feature which always triggers overt movement of the relative CP.[21] The other possibility is to

[20] Note also that if the complex DP is an object and if there is a phonetically realised accusative case marker, the preposed adjectival phrase has to have this case marker too, as depicited in (i) and (ii).

(i) a. tinantina yä-mäTa-ø-w-n [wäfram-u-n] lijj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc [fat-def-Acc] boy
b. tinantina yä-mäTa-ø-w-n [wäfram] ijj
yesterday comp-come$_{perf}$–3ms$_s$-def-Acc [fat] boy
(ii) a. [wäfram-u-n]$_i$ tinantina yä-mäTa-ø-w-n [e]$_i$ lijj
b. *[wäfram]$_i$ tinantna yä-mäTa-ø-w-n [e]$_i$ lijj

[21] If this alternative is true it means that when it comes to the checking of APs the strongness and weakness of features is associated with the moved element, while in the case of CP-checking this strongness and weakness of features is associated with the target functional category. Note that here, in Chomsky (1993, 1995) and many others the strongness/ weakness of features is associated with the target functional category while in Lasnik (1999) it is assumed to be determined by the moved element. If the above assumption is true both possibilities exist in the natural languages.

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assume that the relative CP in Amharic always has the determiner considering indefiniteness as "marked" by a zero morpheme.

5. Conclusion

The aim of this paper, as mentioned earlier, is to investigate Kayne's Antisymmetry theory focusing on the relative clause construction in one of the OV languages, i.e. Amharic. Against Kayne's assumption Amharic has a complementizer along with the relative clause. Furthermore, I have shown that analysing relative clause constructions as having no relativized nominal head, being the relativized NP in Spec of CP, also fails to account for the case of OV languages. I have argued along with Platzack (1997/2000), however, that the relative CP has to be treated as a complement of N. According to Kayne (1994) this analysis is the only alternative left for LCA.

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