

# AGREEMENT AND VERB MOVEMENT IN EWONDO

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This article analyzes verb movement in Ewondo, a Bantu language spoken in Cameroon, West Africa. It describes the relevant features of its tense system before claiming that head movement in compound tense constructions is regulated by the minimality condition. Finally, it shows that the double occurrence of agreement markers in Ewondo compound tense constructions cannot be structurally represented. Instead, it has to be either spelled out at the level of phonetic form or inserted during the derivation.

Cet article analyse le déplacement du verbe en ewondo, une langue bantoue du Cameroun (Afrique de l'Ouest). D'abord, il décrit les traits saillants de son système temporel. Ensuite, il affirme que le déplacement de la tête dans les temps composés est réglé par la condition de la minimalité. Enfin, il montre que la double occurrence des marques d'accord dans les temps composés ewondo ne peut pas être représentée structurellement. Plutôt, elle doit être soit matérialisée au niveau de la forme phonétique soit insérée au cours de la dérivation.

## 0. INTRODUCTION

In this article<sup>1</sup> the verb movement in Ewondo,<sup>2</sup> a Bantu language spoken in Cameroon, is analyzed. After describing the relevant features of Ewondo's tense system, it is shown how the head movement in compound tense constructions is subject to the minimality requirement (Chomsky 1986, Rizzi 1990, Benmamoun 1989). Finally, the ways in which the double occurrence of agreement markers in Ewondo compound tense constructions can be accommodated is explored using two proposals concerning the origin of subjects (Koopman and Sportiche 1985, Koopman 1988, and Kuroda 1988). It is argued that a minimal theory of grammar should avoid the projection of agreement because it is the manifestation of a relationship between two elements rather than a structural position per se.

## 1. TENSES

### 1.1 THE RECENT PAST (P1)<sup>3</sup>

In Ewondo, tense is by affixation. The tense marker is prefixed to the verb stem, preceded by the (noun class) subject agreement marker (SM). The tense marker for the recent past (P1) is **a-**. The verb stem is **bó** 'be'. P1 indicates that an action has just been realized. Consider the paradigm in (1) in which the SM encodes subject-verb agreement.

#### (1) Affirmative

<b>mbála a</b>	<b>a-bó</b>
Mbala SM	P1-be
Mbala was	

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<sup>2</sup> Ewondo, also known as Ewundu, Jaunde, Yaounde, Yaunde, is spoken in Cameroon by approximately half a million people (577,700 according to Grimes 1992). The language is spoken mainly in the Central and South Provinces. Ewondo is classified as Niger Kordofanian (Niger-Congo), Benue Congo; Brantoid; Bantu; Yaounde-Fang (A.70).

<sup>3</sup> Abbreviations in this article are: AGR - agreement marker, AGRP - agreement phrase, APPL - applicative, ASP - aspect, ASSP - aspect phrase, AUX - auxiliary, CP - compound phrase, FP - finite phrase, FUT - future tense, FV - final vowel, HAB - habitual, I - inflection, IP - inflectional phrase, INF - infinitive marker, NEG - negative, NEGP - negative phrase, NP - noun phrase, OM - object marker, P1 - past tense one, P2 - past tense two, P3 - past tense three, PRO - pronoun, SM - subject agreement marker, SPEC - specifier, t - trace, T - tense, TP - tense phrase, v - verb, VP - verb phrase.

**bóngó b́ a-b́**  
 children SM P1-be  
 children were

Negative

**mbála a a-a-b́ kig**  
 Mbala SM NEG-P1-be NEG  
 Mbala was not

**ibóngó b́ a-a-b́ kig**  
 children SM NEG-P1-be NEG  
 children were not

Notice that this language uses two markers for negation: **a . . . kig**. **a-** is prefixed to the tense marker and **kig** occurs after the verb. Negation will be looked at later in the article.

## 1.2 THE PAST TENSE TWO (P2)

The affix for the P2 marker is **m-**. This tense indicates that the action occurred a few days before.

### (2) Affirmative

**mbála a m-b́**  
 Mbála SM P2-be  
 Mbala was

**bóngó b́ m-b́**  
 children SM P2-be  
 children were

Negative

**mbála a a-m-b́ kig**  
 Mbala SM NEG-P2-be NEG  
 Mbala was not

**bóngó b́ a-m-b́ kig**  
 children SM NEG-P2-be NEG  
 children were not

## 1.3 THE PAST TENSE THREE (P3)

The P3 affix is **nga-**. This tense indicates that an action occurred a long time ago.

### (3) Affirmative

**mbála a ngá-b́**  
 Mbála SM P3-be  
 Mbala was

**bóngó b́ ngá-b́**  
 children SM P3-be  
 children were

Negative

**mbála a á-ngá-b́ kig**  
 Mbála SM NEG-P3-be NEG  
 Mbala was not

**bóngó b́ a-ngá-b́ kig**  
 children SM NEG-P3-be NEG  
 children were not

Sometimes the language uses **ndzi** in the negative forms of P3. The status of **ndzi** will be discussed later in the article. The negative forms in (3) could also be expressed as (4).

(4) **mbála a á-ndzí kig b́**  
 Mbala SM NEG-P3 NEG be  
 Mbala was not

**bóngó b́ á-ndzí kig b́**  
 children SM NEG-P3 NEG be  
 children were not

#### 1.4 COMPOUND TENSES

Now that the various uses of the verb *be* in the past tenses has been presented, we will see how these forms are used in compound tenses in the language. Thus, if we take the verb **sóno** ‘kneel’ and conjugate it in P1, the affirmative and negative paradigms in (5) are obtained.

(5) Affirmative

**mbála a a-b́ a sóno**  
 Mbala SM P1-be SM kneel  
 Mbala was kneeling.

**bóngó b́ a-b́ b́ sóno**  
 children SM P1-be SM kneel  
 children were kneeling

Negative

**mbála a á-a-b́ kig a sóno**  
 Mbala SM NEG-P1-be NEG SM kneel  
 Mbala was not kneeling.

**bóngó b́ á-a-b́ kig b́ sóno**  
 children SM NEG-P1-be NEG be kneel  
 children were not kneeling

Recall that Ewondo may optionally use the morpheme **ndzi** in the negative forms of the past tense. Thus, the negative forms in (5) may be rendered as in (6).

(6) **mbála a á-ndzí kig b́ a sóno**  
 Mbala SM NEG-P3 NEG be SM kneel  
 Mbala was not kneeling.

**bóngó b́ á-ndzí kig b́ b́ sóno**  
 children SM NEG-P3 NEG be SM kneel  
 children were not kneeling

The phenomena illustrated in (5) and (6) for the verb **sóno** ‘kneel’ in P1 also obtain for the verb **tálə** ‘stand’ in P3 shown in (7).

## (7) Affirmative

**mbála a ngá-bó a tólə**  
 Mbala SM P3-be SM stand  
 Mbala was standing.

**bóngó bó ngá-bó bó tólə**  
 children SM P3-be SM stand  
 The children were standing.

## Negative

**mbála a á-ngá-bó kig a tólə**  
 Mbala SM NEG-P3-be NEG SM stand  
 Mbala was not standing.

**bóngó bó á-ngá-bó kig bó tólə**  
 children SM NEG-P3-be NEG be stand  
 The children were not standing.

Negative with *ndzi*

**Mbála a á-ndzí kig bó a tólə**  
 Mbala SM NEG-P3 NEG be SM stand  
 Mbala was not standing.

**bóngó bó á-ndzí kig bó bó tólə**  
 children SM NEG-P3 NEG be SM stand  
 The children were not standing.

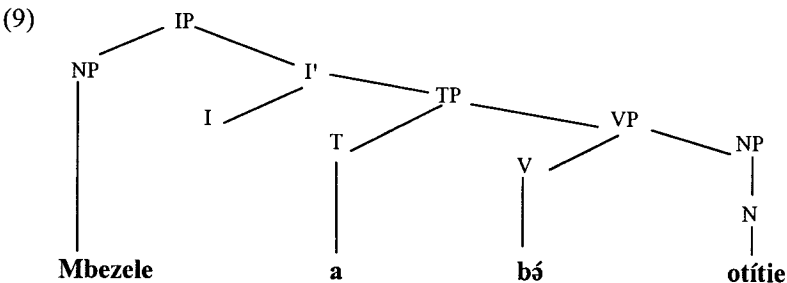
In §2, verb movement in Ewondo will be looked at and in the process the status of *ndzi* will be specified.

## 2. HEAD MOVEMENT

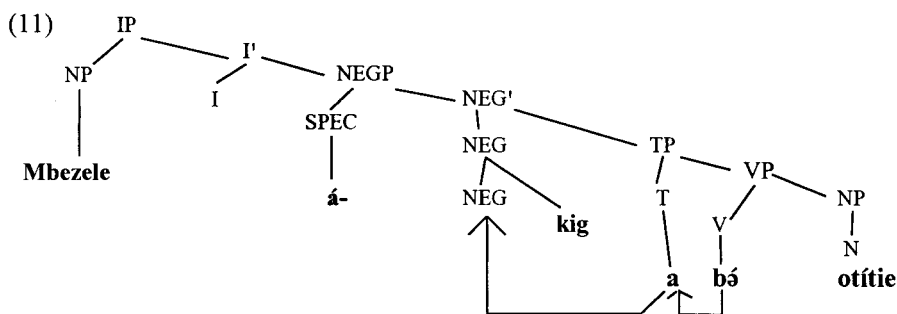
## 2.1 VERB MOVEMENT

The data described above will now be analyzed. Consider the sentences in (8) and (10) and their representations in (9) and (11). Also, (10) is the negative counterpart of (8).

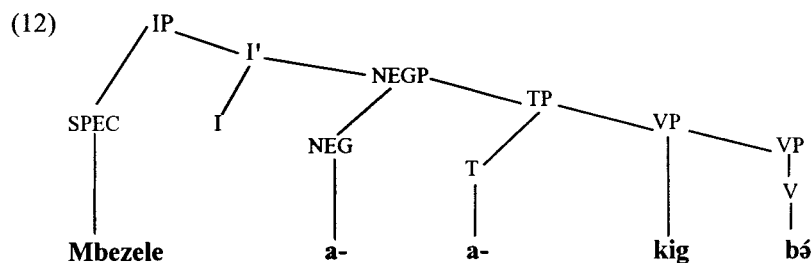
(8) **mbezele a a-bó otítie**  
 Mbezele SM P1-be star  
 Mbezele was a beautiful woman.



(10) **mbezele a á-a-bó kig otítie**  
 Mbezele SM NEG-P1-be NEG star  
 Mbezele was not a beautiful woman.



Notice that in (10), the two separate elements *á . . . kig* encode negation. As represented in (11), it could be argued that *á* is the specifier of the negative phrase, like French *ne* (Chomsky 1989, unlike Pollock 1989), and *kig* is the head of the negative phrase (NEGP). Furthermore, (11) shows that the verb *bǎ* ‘be’ moves first to the head of the tense phrase, and later raises to the left of the head of the negative phrase. This line of analysis is warranted by the assumption that T raises or adjoins to NEG. Laka (1990) argues that NEG must be in the scope of T at S-structure.<sup>4</sup> This accounts for the behavior of the tense marker *a*. It could also be argued that the verb moves to support the head of the negative phrase *kig* (see Benmamoun 1989 for similar facts in Moroccan Arabic). This reasoning leads to the conclusion: A head can move and adjoin to the right or to the left of another head. For example, the verb *bǎ* adjoins to the right of the head of TP (*a*), and then the resulting unit (*abǎ*) moves on and adjoins to the left of the head of the NEGP. If we allow adjunction on both sides of the head, then we have to determine exactly which side will be chosen at each step of the movement. It is not obvious how such a choice can be regulated in a non-trivial manner. One could get around this problem by treating the negative marker *kig* as a VP-adjoined adverb, which is lower than TP in the phrase. This would force us to treat the negative marker *a* as the head of the NEGP, with an empty specifier, much in the same way that a tense marker is the head of TP with an empty specifier. Assuming that *a* is the head of the NEGP and *kig* is a VP-adjoined adverb, the verb would always raise to the left of *kig* in its movement upstairs, and adjunction would be consistently to the right of the higher head as illustrated in (12).



The phrase structure in (12) entails that the verb *bǎ* simply raises over *kig* to adjoin to the head of TP.

Sometimes, Ewondo gets rid of *a* in negative sentences. Thus, the forms in (13) take the shapes in (14).

<sup>4</sup> Laka (1990) proposes a universal requirement on functional heads to the effect that all functional heads in the clause that are propositional operators be c-commanded by the head tense at S-structure:  
TENSE C-COMMAND CONDITION: Tense must c-command at S-structure all propositional operators of the clause.

- (13) **mə á-ngá-bó kig**  
 I NEG-P3-be NEG  
 I was not
- o á-ngá-bó kig**  
 you NEG-P3-be NEG  
 you were not

- (14) **mə ngá-bó kig**  
**o ngá-bó kig**

This situation is strikingly similar to the evolution of colloquial French as reported by Pollock (1989, footnote 3). In (12), when the verb moves to the left of **kig**, the movement obeys the head movement constraint (Travis 1984, Baker 1988, Chomsky 1989).

Assuming that **kig** is not the head of NEGP but a VP-adjoined adverb dispenses with having to claim that it is not a blocker for verb raising. Pollock (1989:397) has argued that "heads intrinsically inert for government (as NEG) do not count as potential intervening head governors for the minimality principle," in the spirit of Rizzi's (1990) 'relativized minimality' theory. But Benmamoun (1989) has argued for the opposite viewpoint that NEG is a potential antecedent governor for the minimality condition in Standard Arabic. We need not concern ourselves with this debate here since **kig** is a VP-adjoined adverb rather than the head of the NEGP. And adverbs do not block government since they are adjoined to the VP (Chomsky 1986).

Consider now the two sentences in (15).

- (15) a. **ondoa a ngá-bó á ndá**  
 Ondoa SM P3-be in house  
 Ondoa was in the house.
- b. **ondoa a á-ngá-bó kig á ndá**  
 Ondoa SM NEG-P3-be NEG in house  
 Ondoa was not in the house.

The facts of verb movement in (15b) are as easily accountable as those of (11). Remember that in past tenses, Ewondo may use the morpheme **ndzi** for negation. The equivalent of (15b) is (16b).

- (16) a. **ondoa a ngá-bó á ndá**  
 Ondoa SM P3-be in house  
 Ondoa was in the house.
- b. **ondoa a á-ndzí kig bó á ndá**  
 Ondoa SM NEG-P3 NEG be in house  
 Ondoa was not in the house.

Even if **bó** is substituted with a lexical verb like **kus** 'buy', it is still possible to use **ndzi** as shown in (17).

- (17) a. **ondoa a ngá-kus ndá**  
 Ondoa SM P3-buy house  
 Ondoa had bought a house.
- b. **ondoa a á-ndzí kig kus ndá**  
 Ondoa SM NEG-P3 NEG buy house  
 Ondoa had not bought a house.

(16b) and (17b) seem to indicate that **ndzi** carries tense information. The main properties of this element are that (a) it occurs in complementary distribution with other

tense markers; (b) it only occurs in negative sentences; and (c) it occurs to the immediate left of the negative marker **kig**. The behavior of **ndzi** reminds us a lot of the behavior of **avoir** and **être** in the French past tenses, e.g., *passé composé* or *plus-que-parfait*.

(18) a. **J'avais acheté du beurre.**

I had bought some butter.

b. **Je n'avais pas acheté de beurre.**

I had not bought any butter.

(19) a. **J'étais allé(e) en France.**

I was gone to France.

b. **Je n'étais pas allé(e) en France.**

I was not gone to France.

Pollock (1989) argues that in (18) and (19), **avais** and **étais** have raised to I. Therefore, the movement of **mangé** and **allé(e)** to that position is barred as illustrated by the ungrammaticality of (20).

(20) a. \***Je n'avais mangé pas de fromage.**

b. \***Je n'étais allé(e) pas en France.**

When the so-called auxiliaries are not present in French, verbs move to I.

(21) a. **Je mange du beurre.**

I eat some butter.

b. **Je ne mange pas de beurre.**

I do not eat any butter.

(22) a. **Je vais en France.**

I go to France.

b. **Je ne vais pas en France.**

I do not go to France.

The situation in Ewondo with respect to the particular behavior of **ndzi** looks much like the French case. Assume that **ndzi** is an auxiliary verb like **avoir** and **être** in French. If this viewpoint is correct, (23) is derived through verb movement of **ndzi**.

(23) **ondoa a á-ndzí kig kus ndá**

Ondoa SM NEG-AUX NEG buy house

Ondoa had not bought a house.

Thus **ndzi** adjoins to **kig** (presumably under the tense C-command condition of Laka (1990)). Exactly as in French, **kus** 'buy' cannot move when **ndzi** raises. This accurately explains the generation of sentence (23). The facts are supported by (24) and (25).

(24) a. **mvondo a síli bod bidí**

Mvondo SM asks people food

Mvondo asks people for food.

b. **mvondo a á-síli kig bod bidí**

Mvondo SM NEG-asks NEG people food

Mvondo does not ask people for food.

(25) a. **mvondo a ngá-síli bod bidí**

Mvondo SM P3-ask people food

Mvondo had asked people for food.

b. **mvondo a á-ndzí kig síli bod bidí**  
 Mvondo SM NEG-AUX NEG ask people food  
 Mvondo had not asked people for food.

In our terms, the verb **síli** 'ask' raises to **a-** in (24a). In (24b) the verb adjoins to the left of **kig**. In (25a), V-movement to T has applied deriving the order **nga-síli**. Whereas in (25b) the auxiliary **ndzi** adjoins to **kig**, **síli** cannot move upstairs for the same reason **mangé** cannot in **je n'ai pas mangé**.

Now let us direct our attention to verb movement in the so-called compound tenses. Consider the typical compound tense constructions in Ewondo in (26) and (27).

(26) a. **mvondo a a-bó a toba**  
 Mvondo SM P1-be SM sitting  
 Mvondo was sitting.

b. **mvondo a á-a-bó kig a toba**  
 Mvondo SM NEG-P1-be NEG SM sitting  
 Mvondo was not sitting.

In (26), the subject marker (SM) represents subject-verb agreement. This is evidenced by the fact that changing the subject of the sentence obtains a different SM.

(27) **mvú i a-bó i toba**  
 dog SM P1-be SM sitting  
 The dog was sitting.

**mvú i á-bó kig i toba**  
 dog SM NEG-P1 NEG SM sitting  
 The dog was not sitting.

In (26) and (27), the tense marker **a** follows the first SM, but there is none after the second SM. In fact, no tense marker may appear after the second subject marker. It seems to be the case that only an aspectual element may occur in that position as illustrated in (28).

(28) **mvú i a-bó i kadógó-toba**  
 dog SM P1-be SM HAB-sitting  
 The dog was not usually sitting.

**mvú i á-a-bó kig i kadógó-toba**  
 dog SM NEG-P1-be NEG SM HAB-sitting  
 The dog was not usually sitting.

Now what is the derivation of the constructions exhibited in (28)? The thematic verb **toba** 'sit' raises to support the aspect marker **kadógó**, and both items move to the embedded subject agreement marker **i**. The derived item [**i + kadógó + toba**] cannot raise to tense (T) in (29), however, because it would violate the minimality condition<sup>5</sup> (Chomsky 1986, Benmamoun 1989, Rizzi 1990). The verb **be** (qualifies as a potential governor of the trace left by the raising of the derived item. If the derived constituent moves across the verb and adjoins directly to T, the verb will c-command the trace but not the raised constituent (let us call it *v* for expository purposes).

<sup>5</sup> Minimality (Rizzi 1990).

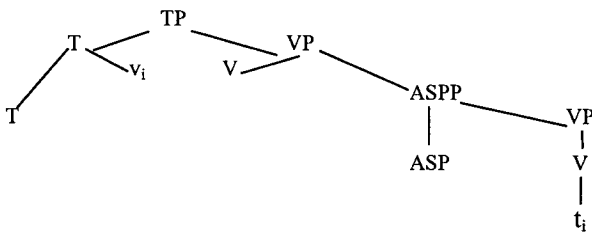
A governs B if there is no C such that:

(1) C is a potential governor for B, and

(2) C c-commands B and does not c-command A.



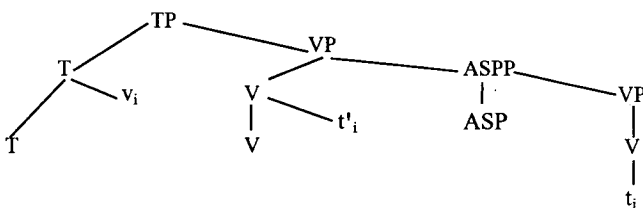
(29)



Assume for the sake of discussion that the derived item [*i* + *kadógó* + *toba*] is contained by *v* and that it raises from there to the higher position (tense). In (29), the minimality requirement is violated because *V* is a closer antecedent. Thus, the prediction that the option of raising directly from the host position to the target position is a bad one is warranted in view of the Ewondo empirical material.

Adjunction to the verb shown in (30) would also violate the minimality condition.

(30)



In (30), *t'*<sub>*i*</sub> is antecedent governed<sup>6</sup> by *v*<sub>*i*</sub>. If the higher *V* does not c-command *t'*<sub>*i*</sub>, then *V* is a potential antecedent for *t*<sub>*i*</sub> (the original trace of *v*<sub>*i*</sub>). Given the definition of c-command in (31), the higher *V* does not c-command *t'*<sub>*i*</sub>, consequently *V* can be a potential antecedent for *t*. Since *V* is a potential antecedent governor for the trace of *v*<sub>*i*</sub>, the latter cannot adjoin to it en route to its target position. Notice also that (30) violates lexical integrity, breaking a morphological constituent.

(31) A c-commands B iff A does not dominate B and every C (C a maximal projection) that dominates A dominates B and A excludes it.<sup>7</sup>

In partial conclusion, movement of *v*<sub>*i*</sub> to T is forbidden because it would violate minimality since *bá*<sup>8</sup> is a potential antecedent. But nothing prevents *bá* from moving to the left of NEG.<sup>9</sup>

<sup>6</sup> Antecedent government:

A antecedent governs B if and only if.

(1) A and B are coindexed

(2) A c-commands B

(3) The minimality condition is not violated.

<sup>7</sup> Exclusion (Chomsky 1986): A excludes B if no segment of A dominates B.

<sup>8</sup> On the status of *bá*, it could be argued that the subject position of *bá* is non-thematic (cf. Postal 1974, Stowell 1978) on *be* in English; Carstens and Kinyalolo (1989) on *kuwa* in Swahili). Subject-verb inversion is disallowed in Ewondo. Thus, although a PRO subject clause is possible, an expletive subject is not allowed.

Data show that *bá* is a raising verb. There is indication that the raising takes place from SPEC to SPEC (this view is advocated in Carstens and Kinyalolo 1989 and Sportiche 1989).

<sup>9</sup> It is shown here that tense morphology does not accompany the thematic verb of a compound tense construction. Similarly the thematic verb cannot raise to tense. We argue here that the movement of the derived complex item [ASP + verb] is blocked by the minimality condition: the trace of the derived item will be governed by the intervening *bá*, rather than by its antecedent in tense.

Now we have to account for the presence of *bá*. We think that *bá* is a dummy verb inserted to support tense. In the following sentence, the lexical verb *dí* raises to support the aspect marker *vo*.

*míníngá wama a ngá-bá a vóloga-dí bidí*  
 woman my SM P2-be SM ASP-eat food  
 My wife was quickly eating food.

The derived complex [ASP + verb] (*[vóloga + dí]*) cannot raise to tense because of the intervening potential governor *bá* which occurs here to support the tense morpheme *nga-*. *bá* could have (contd.) been inserted during the derivation, prior to head movement. The derived subject *míníngá wama* 'my wife' has raised to

## 2.2 ARGUMENTS AGAINST A BI-CLAUSAL ANALYSIS OF COMPOUND TENSE CONSTRUCTIONS

It might be said that compound tense structures are made of two clauses. We will briefly show here that this cannot be the case. Similar data in Kilega and Swahili are presented and discussed in a very interesting paper by Carstens and Kinyalolo (1989).

Consider the Ewondo sentences in (32).

(32) a. \***mezolo a m-bó [nâ a kadóǵá-bómbó á ndá]**  
 Mezolo was P2-be that SM HAB-sleep in house  
 Mezolo was usually sleeping in the house.

b. **mezolo a m-bó [a kadóǵá-bómbó á ndá]**  
 Mezolo SM P2-be SM HAB-sleep in house  
 Mezolo was usually sleeping.

c. **andela a ngá-kat [nâ ésiá atangana a ngá dúgan á dzál]**  
 Andela SM P3-say that father Atangana SM P3 go<sup>h</sup>back to village  
 Andela said that Atangana's father went to the village.

The contrast between (32a) and (32b) shows that in a compound tense construction, what could erroneously be interpreted as an embedded clause may not be introduced by a complementizer. Furthermore, as mentioned earlier, only an aspectual marker may appear in the bracketed material in (33a).

(33) a. \***tábí a m-bó [a m-soló ítundá]**  
 Tabi SM P2-be SM P2-hide bedroom  
 Tabi was hiding in the bedroom.

b. **tábí a m-bó [a soló ítundá]**  
 Tabi SM P2-be SM hide bedroom  
 Tabi was hiding in the bedroom.

c. **tábí a m-bó [a badǵə-soló ítundá]**  
 Tabi SM P2-be SM ASP-hide bedroom  
 Tabi was hiding again in the bedroom.

(33a) is ungrammatical because the bracketed material contains the P2 marker **m**. There is no overt aspectual marker in (33b) as opposed to (33c). But the meaning of (33b) forces us to posit that there is an empty aspect node in the sentence. This conclusion is corroborated by the presence of overt aspectual morphology in (33c). Contrast now (33) with (34).

(34) **mangá a kat [nâ tábí a ayi-soló ítundá]**  
 Manga SM says that Tabi SM FUT-hide bedroom  
 Manga says that Tabi will hide in the bedroom.

The sentences in (32)–(34) indicate that the bracketed material in compound tense constructions cannot be considered clauses or tensed indicative CPs. Very clearly, the bracketed material is also different from subjunctive CPs since the latter require both a complementizer and a low tone on the vowel of one syllable-verb stem, a high tone on the last two syllables of a three-syllable verb stem. The forms **nyú** 'drink', **bá** 'mix', **sugúzú** 'shake' are used in (35).

comply with the case filter. It has moved from the SPEC of ASPP to the SPEC of AGRP. The double occurrence of subject agreement markers (**a**) is the result of this movement.

[<sub>IP</sub> [<sub>miníngá wama</sub>]<sub>i</sub> [<sub>I'</sub> **a ngá-bó** [<sub>ASPP</sub> **a vólo-dí** V [<sub>VP</sub> t<sub>i</sub> [<sub>VP</sub><sup>lv</sup> bidí]]]]]

- (35) **məsína a ding [nâ mvondo á nyú møyok]**  
 Məsina SM wants that Mvondo SM drink wine  
 Məsina wants Mvondo to drink wine.

**məsína a ding [nâ mvondo á bámán mbong a mändim]**  
 Məsina SM wants that Mvondo SM mix cassava and water  
 Məsina wants Mvondo to mix cassava with water.

**məsína a ding [nâ mvondo á sugúzú ilé]**  
 Məsina SM wants that Mvondo SM shakes tree  
 Məsina wants Mvondo to shake the tree.

Since subjunctive clauses are obligatorily introduced by the lexical complementizer **nâ** ‘that’ unlike the compound tense constructions, we conclude that the latter are not subjunctive CPs.

Compound tense constructions are not control structures either given that the control structures cannot allow the presence of aspectual morphology which indicates that a given structure is tensed. And usually tense and control structures do not go hand in hand.

- (36) **məsína a ding [PRO o-sob biyé]**  
 Məsina SM wants INF-wash clothes  
 Məsina wants (likes) to wash clothes.

**\*məsína a ding [PRO o-kadógó-sob biyé]**  
 məsina SM wants INF-HAB-wash clothes  
 Mäsina wants to wash clothes usually.

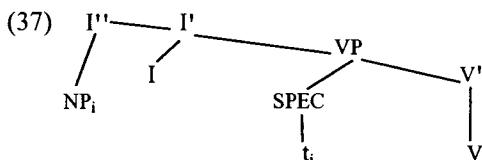
**məsína a ding [PRO (\*a) \*(o-)sob biyé]**  
 Məsina SM wants SM INF-wash clothes  
 Məsina wants to wash clothes.

The presence of an aspectual affix and an agreement morpheme (SM) in the last two clauses in (36) rules out these constructions, providing evidence that they are different from compound tense constructions.

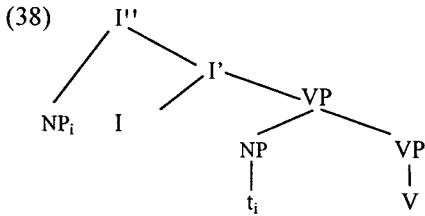
### 2.3 SUBJECTS

There have been many proposals speculating as to the exact origin of subjects: Manzini (1987), Koopman and Sportiche (1985), Koopman (1988), Kuroda (1988), Carstens and Kinyalolo (1989), among others. In this section, possible ways in which two of the more prominent of these approaches can handle the empirical material presented here is considered.

Kuroda claims that subjects originate in [SPEC, VP].



Koopman and Sportiche assume that subject NP raises from a VP-adjoined position.



Recall that in compound tense constructions, two identical subject markers occur.

- (39) **ondoa a a-bó a sóno**  
 Ondoa SM P1-be SM kneeling  
 Ondoa was kneeling.

Should we change the subject markers in (39), the resulting sentence in (40) will be ungrammatical.

- (40) \***ondoa a a-bó i sóno**  
 Ondoa SM P1-be SM kneeling

How would the Ewondo facts be handled in Kuroda and Koopman and Sportiche frameworks where AGR is not a head? A rule takes care of the agreement between I and its specifier.

**Kuroda.** According to Kuroda (1988) “what agrees with what would be determined by principles of universal grammar.” Moreover, he claims that C and I agree with their specifiers and that the subject NP moves from [SPEC, VP] in English to acquire case. In this system, I (rather than V) hosts agreement. Thus NP-movement from [SPEC, VP] to [SPEC, IP] accounts for the occurrence of the subject NP in the specifier position of I. Given Kuroda’s “Agreement with Specifier Position Principle,” I agrees with the subject NP. This correctly explains the presence of the (first) subject marker (agreement marker **a**) in compound tense constructions and in (41).

- (41) **atebá a ding biningá**  
 Ateba SM loves women  
 Ateba loves women.

Now how could Kuroda’s analysis account for the double occurrence of agreement in constructions such as (39)? The lower manifestation of AGR would be, in this case, agreement between the participial head and its specifier. Thus the participial head would be one of those elements that agree with their specifier in Ewondo.

More specifically, how would Kuroda’s system handle the Ewondo data in (42)?

- (42) a. **məsangá a til kálata**  
 Məsanga SM writes letter  
 Məsanga writes a letter.
- b. **məsangá a ayi-til kálata**  
 Məsanga SM FUT-write letter  
 Məsanga will write a letter.
- c. **məsanga a ngá-vólo-til kálata**  
 Məsanga SM P3-ASP-write letter  
 Məsanga quickly wrote a letter.

**a** is AGR in these three sentences. In (42a) the present tense is not overtly realized. In (42b) and (42c) the respective tenses are future and past. The affixes that occur between the subject agreement markers and the lexical verb are elements that appear in I,

in a framework like Chomsky (1981). Notice that (42c) contains an aspectual element (*vólo-*).

In Kuroda's system, the subject moves from [SPEC, VP] to [SPEC, IP] in English to receive case. The presence of the agreement marker *a* in (42a)–(42c) is accounted for under the assumption that *I* agrees with the [SPEC, IP] position. In (42a) and (42b), the verb *til* 'write' raises to *I*, hence the word order obtained at S-structure. In (42c), we can assume that aspect projects in the syntax, in the spirit of Chomsky (1957) where it is argued that ASP is a syntactic category that may optionally occur in a sentence. The sentence (42c) is derived as follows: the verb *til* moves to ASP, the latter moves to *T* thereby deriving the order of the elements in the verbal complex. SPEC-head agreement between [SPEC, IP] and *I* explains the presence of the subject agreement marker in (42c).

**Koopman and Sportiche.** Koopman and Sportiche (1985) assume that the external theta-role is assigned by the VP under sisterhood. For them, the rule of SPEC-head agreement proposed by Chomsky (1986) takes care of agreement. The double occurrence of agreement markers (subject markers) in Ewondo compound tense constructions can be accounted for in their system if two things are taken into account: (a) a functional head (*x*) occurs between *I I* and VP; this head could be aspect as in Carstens and Kinyalolo (1989) or  $\mu$  as in Pesetsky (1989), and (b) NP-movement is SPEC-to-SPEC as proposed by Sportiche (1989). In this analysis, AGR would be inserted during the derivation or spelled out at the level of phonetic form.

**Agreement: Structural position or relationship?** In the above two sections, we have considered ways in which the agreement facts in Ewondo can be accounted for in two of the most prominent views about the generation of subjects and agreement. Essentially, for Kuroda and Koopman and Sportiche, agreement is the manifestation of a relationship between the subject and *I*. In their system, it is not necessary to represent AGR structurally or to project it. This viewpoint is in disagreement with theories such as Pollock (1989) and Chomsky (1989) which postulate the projection of agreement. Let us assume for the sake of discussion that Chomsky's system is representative of Pollock's (although some systematic differences exist between the two). To illustrate how Chomsky treats AGR, consider the sentence in (43) from Tuki, a Bantu language of Cameroon (Biloa 1991, 1992, 1995).

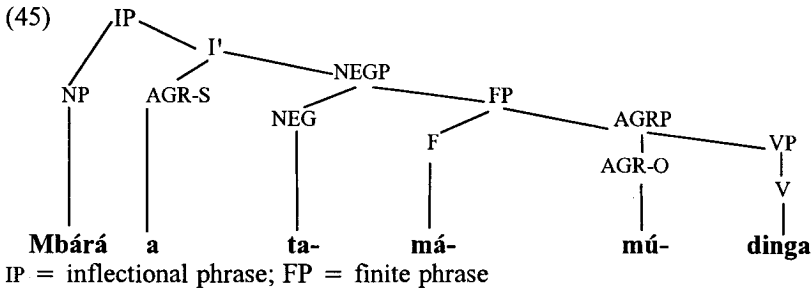
- (43) **mbára a ta-má-mú-dinga**  
 Mbara SM NEG-P2-OM-love  
 Mbara did not love her.

In Tuki, the presence of the subject marker is obligatory in finite constructions. The subject marker agrees in noun class with the subject so it is called AGR. The object marker may occur only in tensed clauses. Object markers, which can refer only to humans, may be considered as object agreement markers as shown in (44).

- (44) **mbára a-gírám pútá**  
 Mbara SM-waits Puta  
 Mbara waits for Puta.

**mbára a-mú-gírám**  
 Mbara SM-OM-waits  
 Mbara waits for her.

The structure of the Tuki sentence from (43) is proposed in (45).



This structure assumes the theory of Chomsky (1988, 1989). In simple terms, IP is a sentence, whereas FP is a tense phrase. Unlike Pollock (1989), Chomsky assumes that AGR dominates tense, since AGR governs the subject in finite clauses, thereby yielding subject-verb agreement. The Tuki data seems to provide empirical evidence that Chomsky is right, given that in this language NEG<sub>P</sub> stands between AGR and tense. Chomsky notes that there are two kinds of verb-NP agreement: with subject and with object. Essentially following Pollock, he indicates that there are two AGR elements: the subject-agreement element AGR-S and the object-agreement element AGR-O. Generally, AGR-O is close to V, and AGR-S close to the subject. Thus in (43), **mú** is the AGR-O whereas **a** is the AGR-S. The presence of **mú** in (43) can be accounted for along the lines of a theory of incorporation (Baker 1988). Note that in Chomsky's view of sentence structure, unlike Pollock's, I is AGR-S with the latter thereby becoming the head of I' and IP, and F is [ $\pm$ finite] (tense). Bear in mind that Chomsky believes that agreement is taken care of by a rule of SPEC-head agreement, as do Kuroda and Koopman and Sportiche, but unlike them he maintains that agreement should be structurally represented (that is projected). What seems to motivate the position that AGR should be structurally represented? One motivation could be case assignment. Chomsky (1981) has argued that it is AGR that assigns nominative case to the subject [NP, IP].<sup>10</sup> Thus in representations such as (45), assuming that structural case is assigned under government, tense cannot possibly assign case to the subject. The agreement head, on the other hand, governs the subject. It has to be that the subject is assigned nominative case by AGR.

As plausible as it is, the view that it is AGR that is a nominative case assigner can be refuted easily. It could be argued that it is tense that assigns nominative case to the [NP, IP] position. In fact such a proposal has already been made by Chomsky (1980). If tense assigns nominative case to the subject at S-structure, this means that tense also governs the subject at that level of representation. If the tense-as-a-nominative-case-assigner idea is adopted, what would become of the overt manifestation of AGR in Ewondo, among other languages? We suggest that agreement be spelled out at the level

<sup>10</sup> There have been many proposals as to how nominative case assignment takes place. Chomsky (1980) assumes that the feature [+tense] is the element assigning nominative case, under government:

(a) NP is nominative if governed by [+tense]. In Chomsky (1981), he abandons the tense-as-a-nominative-case-assigner idea and proposes that nominative case is assigned by AGR.

(b) NP is nominative if governed by AGR (Chomsky 1981:170).

Koopman (1984), on the basis of Vata data, suggests that nominative case is assigned in the following configuration:

(c) NP is nominative if governed by and adjacent to [I V].

He shows that the proposals (a) and (b) face many problems in view of languages such as Portuguese, Turkish, and Italian. In Portuguese and Turkish, certain constructions contain AGR but no tense. Nominative NPs occur in Italian infinitival clauses which contain neither AGR nor tense.

It is difficult to reconcile the three different approaches to nominative case assignment mentioned above (at least in this work). On the basis of the Ewondo material discussed here and the Swahili and Kilega data (see Carstens and Kinyalolo 1989), we have discarded proposal (b) and adopted proposal (a). Koopman's proposal could ultimately be reconciled with (a) if it is hypothesized that tense is a nominative case assigner when a dummy verb (like **bá** in Ewondo or **kuwa** in Swahili (Carstens and Kinyalolo 1989)) or a lexical verb is raised to support it.

of phonetic form (as might be assumed by Koopman and Sportiche). If tense assigns nominative case to the [NP, IP] position (as indicated by Chomsky 1980) whereas AGR is phonetically realized at the level of phonetic form, realistically speaking there is no need to project AGR.

What evidence is there that forces us to posit that it is tense that assigns nominative case. Consider the Ewondo sentence in (46) and its S-structure.

- (46) **tábí a m-bó [a badəgə-soló ítundá]**  
 Tabi SM P2-be SM ASP-hide bedroom  
 Tabi was hiding again in the bedroom.  
 [<sub>Q</sub>NP\*<sup>i</sup> SM-tense-**bó** [<sub>β</sub> t<sub>i</sub> SM-ASP-V...]]

Notice that tense shows up only in  $\alpha$  (the higher position). If it is assumed that nominative case is assigned by tense, then NP\* has to move from  $\beta$  (the embedded position) to  $\alpha$  in order to satisfy the case filter. An agreement subject marker occurs in both  $\alpha$  and  $\beta$ . If AGR can assign nominative case, why does the subject have to move from  $\beta$  to  $\alpha$ ? This constitutes prima facie evidence that it is tense that assigns nominative case to NP\*. The latter has to raise to the higher position because there is no tense marker in  $\beta$ . Tense can assign nominative case to NP\* if it properly governs the latter position. This implies that tense, unlike AGR, has to be structurally represented. AGR, on the other hand, cannot be structurally represented because it is basically the manifestation of a relationship between a SPEC and a head. Since  $\beta$  is devoid of tense, we will assume with Carstens and Kinyalolo (1989) that  $\beta$  is a projection of aspect.

Another potential argument in favor of the view that AGR has to be projected could come from the null subject phenomenon.

Ewondo is a PRO-drop language. Its thematic subject may be empty.

- (47) a. **mbarga a dí owondo**  
 Mbarga SM eats peanut  
 Mbarga eats peanuts.  
 b. [e] **a dí owondo**  
 SM eats peanuts  
 He/she eats peanuts.
- (48) a. **bóngó b́ ayi-til kálata**  
 children SM FUT-write letter  
 The children will write a letter.  
 b. [e] **b́ ayi-til kálata**  
 SM FUT-write letter  
 They will write a letter.

Now recall that in Bantu languages, the agreement features (gender, number, and person) agreeing with the subject NP are realized on the verb. Thus in (47) and (48) the subject markers **a** and **b́**, which represent AGR, agree in noun class with the NPs **Mbarga** and **bóngó** since Ewondo is a noun-class language. Any random assignment of subject markers to inappropriate NPs will automatically result in ungrammaticality. In case the two NPs **Mbarga** and **bóngó** are not available in the sentence, but they are semantically recoverable in discourse, we will have well-formed empty categories in subject position (cf. (47b) and (48b)). How can the referential value of a null pronoun be

recovered? Jaeggli and Safir (1989) propose a mechanism which helps recover the content of an empty subject.<sup>11</sup>

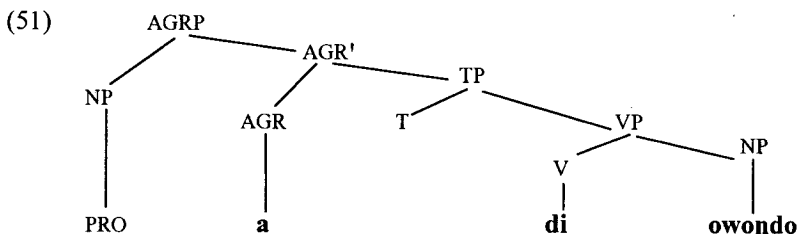
(49) A thematic null subject must be identified

Jaeggli and Safir assume that agreement affixes with relevant  $\alpha$ -features are identifiers in null subject languages. These agreement features govern the subject position. The identification condition is stated in (50).

(50) Identification by agreement

AGR can identify an empty category as (thematic) PRO if and only if the category containing AGR case-governs the empty category.

(50) predicts that Ewondo allows PRO in subject position since AGR case-governs it. More specifically (50) says that if AGR is contained by a category that governs an empty category in subject position, the latter will be licensed. In the more articulated structure of IP proposed by Pollock (1989) and Chomsky (1989), this would imply that AGR heads its own maximal projection. In a system that postulates the projection of AGR, (47b) will have the following tree structure representation in (51).



The head of AGRP (**a**) case-governs PRO; better, **a** properly governs the subject position, thereby licensing the occurrence of null subjects without any empty category principle violation. Since AGR governs and assigns case to the subject of AGRP (Chomsky 1981), the conclusion could be drawn that AGR has to head its own projection to govern the subject.

The null subject argument can be weakened considerably by simply looking at a number of languages that lack any overt manifestation of AGR and yet license PRO in subject position. Chinese and Japanese, for instance, show no number person agreement (Huang 1982).

(52) Chinese

**xihuan** like

(53) Japanese

**yom-ru** read-PRESENT  
**yom-ta** read-PAST  
**yom-anai** read-NEGATIVE  
**yom-eba** read-CONDITIONAL  
**yom-oo** read-IMPERATIVE  
**yom-itai** read-VOLITIONAL  
**yom-are** read-PASSIVE  
**yom-ase** read-CAUSATIVE

<sup>11</sup> Jaeggli and Safir argue that the licensing condition accounting for the lack of thematic null subjects is not rich agreement, but rather "morphological uniformity."

(a) Null subjects are permitted in all and only those languages which have morphological uniform inflectional paradigms.

(b) An inflectional paradigm P for a category K in a language L is morphologically uniform if and only if L has either only underived inflectional K-forms or only derived inflectional K-forms.

They propose a mechanism by which the content of a null pronoun can be recovered. Hence their identification condition (cf. (49) in the text). It is not clear to us how their approach is superior to other approaches to the PRO-drop phenomenon (see Rizzi 1982, 1986 and Safir 1985).



If it can be successfully argued that it is not AGR per se (or inflection for that matter) that is the core of the PRO-drop phenomenon, those who might argue for a projection of AGR on the basis of PRO-drop languages are at a slight disadvantage. It has been argued by Safir (1985) that the existence of phonetically unrealized clitics in Italian results from the "NOM-drop parameter", which thereby accounts for the "missing subject" property.

(54) NOM-drop parameter

Nominative case need not be phonetically realized.

Because it was argued above that it is tense that assigns nominative case to the [NP, IP] position, it has to be the case that tense also regulates the missing subject property. If this point proves to hold water, it casts serious doubt on the validity of a projected AGR. The questions of interest for investigators of null subject languages remain untouched: why isn't nominative case absolutely phonetically realized in those languages? What is it about their tense systems that licenses the missing subject property? These questions are beyond the scope of this work.

In Chomsky's (1981) formulation of binding theory, AGR had an important role in that it was one of the defining features of the notions of accessible subject and governing category. Because of the many difficulties encountered with data from languages like Chinese that do not show overt person-number agreement (Huang 1982), however, the binding module was reformulated in terms of the notion of complete functional complex. But as Iatridou (1990) notes, even when AGR had an active role in the binding module, it was not required that AGR be structurally represented or projected. In fact there may not exist any module that forces AGR to head its own maximal projection. Iatridou shows that the English and French material analyzed by Pollock (1989) can be explained without the postulation of an agreement phrase.

So far we have argued that any theory that calls for a structural representation of agreement may be redundant. We have seen cases where two agreement morphemes occur in a sentence: two subject agreement markers in compound tense constructions, a subject agreement marker and an object agreement marker may occur in the same clause. There are also cases where more than two agreement morphemes show up in a sentence. To clearly illustrate the point, let us summarize how Bantu agreement operates.

In Africa, we find many languages and groups of languages in which affixes with noun stems constitute a major criterion for dividing nouns into a number of noun classes differing from each other in a variety of grammatical constructions (Welmers 1973).

Niger-Kordofanian noun-class languages have many classes. The Bantu group, as a whole, is generally said to have sixteen noun classes. Still, in Niger-Kordofanian noun-class systems, sex distinctions are irrelevant; each singular and each plural affix is autonomous and monomorphemic. Bantu noun classes must be defined by noun prefixes and morphemes such as the subject agreement prefixes which stand in agreement or CONCORD with noun prefixes. Noun prefixes have sometimes been called PRIMARY CONCORD, while subject agreement prefixes have been called REFERENTIAL or SECONDARY CONCORD. (55) gives the complete Tuki outline of primary and secondary concords. The subject agreement prefixes have been determined following the framework: '(X) does (Y)'.  
(55)

	Primary concord	Secondary concord
1:	Ø, mu-, N-, a-, mw-	à-
2:	và-	va-
3:	ò-	ì-, o-
4:	ò-	ó-
5:	ì-, n-	nú-
6a:	à-, an-, mù-, vè-	mu-
6b:	mà-	ma-
7:	y, ì-, à-	í-

8:	<b>vy-, ví-</b>	<b>ví-</b>
9/10:	<b>Ø-</b>	<b>í-</b>
11:	<b>nù-, nò-</b>	<b>nu-</b>
13:	<b>tù-, tò-</b>	<b>tu-</b>
14:	<b>wù-, wè-, w-</b>	<b>wu-</b>
18:	<b>mù-</b>	<b>mu-</b>
19:	<b>ì-</b>	<b>ì-</b>

In Tuki, as in many noun-class Bantu languages, the first syllable of each verbal form is a subject agreement prefix referring to a noun of the class in question, singular or plural. It can be seen to what extent the noun-class system is very important. Every grammatical item occurring in the environment of a noun agrees morphologically with the given noun, so much so that Bantu languages have often been described as having "alliterative concord" (Welmers 1973). Such a description is understandable in the light of sentences like (56) and (57).

(56) Swahili  
Singular

<b>ki-kapu</b>	<b>ki-kubwa</b>	<b>ki-moja</b>	<b>ki-lianguka</b>
AGR-basket	AGR-large	AGR-one	AGR-fell
One large basket fell.			

Plural

<b>vi-kapu</b>	<b>vi-kubwa</b>	<b>vi-tatu</b>	<b>vi-lianguka</b>
AGR-basket	AGR-large	AGR-three	AGR-fell
Three large baskets fell.			

(57) Tuki  
Singular

<b>o-kútú</b>	<b>o-mosí</b>	<b>o-ny-én-á-m</b>	<b>ó-bútu</b>
AGR-woman	AGR-one	AGR-eat-APPL-FV-ASP	AGR-potato
One woman eats a potato for you.			

Plural

<b>va-kútú</b>	<b>vá-tátú</b>	<b>vá-ny-én-á-m</b>	<b>vá-butu</b>
AGR-women	AGR-three	AGR-eat-APPL-FV-ASP	AGR-potatoes
Three women eat potatoes for you.			

It is interesting to note that determiners, adjectives, verbs, complementizers, and prepositions exhibit morphemes which stand in agreement with noun-class prefixes. If agreement has to be projected as advocated by Pollock (1989) and Chomsky (1989), a given sentence may wind up with an incredible number of agreement phrases. This redundancy does not look appealing. Thus although we are in agreement with Chomsky that the SPEC-head agreement hypothesis is valid, we suggest that agreement be spelled out at the level of phonetic form.

### 3. CONCLUSION

In the process of analyzing verb movement in Ewondo, we have established that head movement in compound tenses obeys the minimality condition. Arguments have also been presented to the effect that agreement cannot be structurally represented. Instead, it has to be either spelled out at the level of phonetic form or inserted during the derivation. Overall, this article has presented new data from Ewondo and shown how the theory of grammar can accommodate them at a minimal cost.

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