NEGATION, VERB MOVEMENT AND WORD ORDER IN BAFUT

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This article investigates the underlying word order of Bafut and proposes a theory of verb movement which explains the Bafut data and demonstrates that the trigger of verb movement, at least in the case of Bafut, is a Referential feature and not a Finite feature as is currently assumed in the Minimalist Program. Using genetic relationship, theoretical and empirical considerations, the article argues that Bafut is an SVO type language. In the derivation of surface forms the verb raises to a position above the VP. The article then proposes a theory of verb movement in which the verb raises in order to acquire a specific time reference. In this theory, the referential feature which drives verb movement is in complementary distribution with a negative feature such that verb movement occurs only when negation is absent.

Cet article cherche à établir la structure profonde de l'ordre des mots en Bafut et propose une théorie du mouvement du verbe qui explique les données du Bafut et démontre que la motivation pour le mouvement du verbe, au moins en Bafut, c'est un élément dit +Referential au lieu de +Finite comme reconnu à présent dans le programme Minimaliste. Vu les relations généalogiques et les considérations théoriques et empiriques, cet article soutient le fait que le Bafut est une langue de type SVO. Pour la dérivation des formes de surface, le verbe monte à une position au dessus du syntagme verbal (SV). L'article propose dès lors une théorie du mouvement du verbe dans laquelle le verbe monte afin d'acquérir une référence spécifique du temps. Dans cette théorie, l'élément +Referential qui dirige le mouvement du verbe est en distribution complémentaire avec un autre élément—+Negative de tel manière que le mouvement du verbe se produise seulement lorsque la négation est absente.

0. INTRODUCTION

In Bafut,[1] the position of the verb in negative sentences differs from that in positive sentences.[2] The surface word order in positive sentences is Subject–Verb–Object (SVO) as in (1) below, while negative sentences exhibit a Subject–Object–Verb word order as in (2). Which of these patterns is basic and which is derived is a fundamental problem for linguists describing the grammar of Bafut.

(1) **ŋkāā mfɔ́ yá kā bú'ú ŋgɔ̄ɔ̀**
monkey chief the TNS play drum
The chief's monkey will play a drum.

(2) **kāā ŋkāā mfɔ́ yá kā wā'ā ŋgɔ̀ɔ̀ bú?û**
NEG monkey chief the TNS NEG drum play
The chief's monkey will not play a drum.

The objectives of this article are twofold: (1) to determine the basic word order of Bafut; (2) to develop a theory of verb movement that recognizes the trigger of verb movement to be a *+Referential feature,* and not a *+Finite feature,* as proposed in the

[1]Bafut is a Grassfields Bantu language spoken in the Northwest province of the United Republic of Cameroon. The data for this study is provided by the author, who is himself a native speaker of Bafut.

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Minimalist Program (Chomsky 1995). Based on genetic relationship, theoretical and empirical facts, it is argued that Bafut is an SVO language and that the surface SOV pattern attested in negative sentences is derived via movement of the object NP to the left of the verb. Nonetheless there is evidence from adverb scope interpretation that the verb also moves in positive sentences such as (1) above. The article proposes that verb movement in Bafut is triggered by the need to "pick up" a specificity (as opposed to generic) feature which is crucial for the semantic interpretation of the sentence. This specificity (referential) feature is in complementary distribution with a negative feature such that verb raising occurs only when negation is absent.

This study is based on the minimalist approach to syntactic analysis (Chomsky 1995). To ease presentation, however, I will adopt Pollock's (1989) views on phrase structure. Also, where necessary, I will continue to use traditional terminology such as "move" in place of "attract" as in the minimalist program.

The article is organized as follows: Section 1 contains basic information on sentence structure in positive and negative sentences in Bafut. Section 2 motivates the conclusion that the SVO order is the basic word order of Bafut. Section 3.1 describes the derivation of negative sentences with surface SOV word order from the basic SVO pattern. Section 3.2 focuses on the mechanisms of verb movement in positive sentences, pointing out that current approaches cannot provide an adequate account of verb movement in Bafut. Section 4 proposes an alternative account of verb movement which accounts for the Bafut data and demonstrates that the trigger of verb movement is a +Referential feature and not a +Finite feature. Section 5 concludes the article.

1. LINEAR WORD ORDER

In positive main clauses in Bafut, the subject is in sentence initial position immediately followed by a tense morpheme. The following morphemes mark tense in Bafut:

(3) a. **Ø** Present
b. **lɨ** Immediate past (today)
c. **kɨ** Recent past (yesterday, or last week, month, year)
d. **lɛ** Remote past
e. **kalɨ** Immediate future (today)
f. **kalo** Near future (tomorrow, or next week, month, year)
g. **kayi** Remote future.

After the tense morpheme comes an aspect marker followed by the verb. The object NP, a PP and a time adverbial follow the verb in this order. This linear order is illustrated in (4) below.

(4) **John kɨ sɨ́ bú'ú ŋgɔ̀ɔ̀ múm ndānwì yɔ́ɔ̀**
John TNS ASP play drum in church yesterday
John was playing a drum in the church yesterday.

In negative sentences, the linear order of the subject, tense and aspect is identical with that in positive sentences. However, the subject is preceded by an optional negative

element and the aspect marker is followed by an obligatory negative element[3]. The object, PP and time adverbial follow the sentence internal negative element, and the verb is last in the sentence. The order in negative sentences is illustrated in (5).

(5) **kāā John kì sí wā'ā ŋgɔ̀ɔ̀ múm ndānwì yɔ́ɔ́ bú'û**
NEG John TNS ASP NEG drum in church yesterday play
John was not playing a drum in church yesterday.

In embedded sentences, the linear order is the same as in main clauses, as illustrated in (6) and (7) below. Example (6) is an embedded positive structure, while (7) contains instances of negative embedded sentences.

(6) **Peter kì shwōŋ mə́ John kì sí bú'ú ŋgɔ̀ɔ̀ múm ndānwì yɔ̄ɔ̄**
Peter TNS say that John TNS ASP play drum in church yesterday
Peter said that John was playing a drum in church yesterday.

(7) a. **kāā Peter kì wā'ā shwōŋ mə́ John kì sí bú'ú ŋgɔ̀ɔ̀ múm ndānwì yɔ̄ɔ̄**
NEG Peter TNS NEG say that John TNS ASP play drum in church yesterday
Peter did not say that John was playing a drum in church yesterday.

b. **Peter kì shwōŋ mə́ kāā John kì sí wā'ā ŋgɔ̀ɔ̀ múm ndānwì yɔ̄ɔ̄ bú'û**
Peter TNS say that NEG John TNS ASP NEG drum in church yesterday play
Peter said that John was not playing a drum in church yesterday.

c. **kāā Peter kì wā'ā shwōŋ mə́ kāā John kì sí wā'ā ŋgɔ̀ɔ̀**
NEG Peter TNS NEG say that NEG John TNS ASP NEG drum
múm ndānwì yɔ̄ɔ̄ bú'û
in church yesterday play
Peter did not say that John was not playing a drum in church yesterday.

Tense, aspect, and negation are independent units[4] linearly ordered as such.

The discussion of linear word order presented in this section is by no means exhaustive. The sketch is however sufficient as background to the discussion in this paper. The relevant point to note is that the negative morpheme follows the aspect marker or the tense marker when aspect is absent. The negative morpheme itself is immediately followed by the object and the verb is placed at sentence final position.

2. BASIC WORD ORDER

As pointed out in the introduction, Bafut sentences exhibit two word orders—SVO as in (1) and SOV as in (2). Attention in this section is focused on determining which of these word orders is basic and which is derived. It will be shown that based

[3] In this article the sentence internal negative morpheme **wa'asi** is considered the head of NegP, while the sentence initial **kaa** is treated as a mood marker.

[4] Evidence for the independence of functional heads in Bafut derives from syntactic distribution: each of them can be separated from the lexical morpheme they are traditionally assumed to attach to by other constituents.

on typological, theoretical and empirical considerations, it is more desirable to consider the SVO pattern as basic.

2.1 EVIDENCE FROM GENETIC RELATIONS

The first observation which makes considering Bafut an SOV language rather suspicious relates to the sentence structure of genetically related languages. Many Grassfields Bantu languages consistently place the verb, even in negative sentences, to the left of the object. Consider the examples below from Kom, Lamnso and Akum in which the verb precedes the object NP in both negative and positive sentences.

(8) ***Kom*** (Chia 1994)

a. **Tim lae zhɨ abayn**
Tim TNS eat fufu
Tim ate fufu.

b. **Tim bi lae zhɨ abayn**
Tim NEG TNS eat fufu
Tim did not eat fufu.

(9) ***Lamnso*** (Fonyuy 1996)

a. **ver yii way ŋgwasaŋ**
we TNS plant corn
We will plant corn.

b. **ver yo'o yii way ŋgwasaŋ**
we NEG TNS plant corn
We will not plant corn.

(10) ***Akum*** (Ndangang Florence (pc))

a. **súnʤò tī lā'ā ŋgɔ́ fɔ̀mbāsɔ̄ tí zíjé mízē**
Sunjo TNS say that Fombaso TNS eat food
Sunjo said that Fombaso ate food.

b. **súnʤò tī lā'ā ŋgɔ́ fɔ̀mbāsɔ̄ tí kā' zíjé mízē**
Sunjo TNS say that Fombaso TNS NEG eat food.
Sunjo said that Fombaso did not eat food.

Given the genetic relation between these languages, we expect them to share in common, at least, some major properties like sentence structure. The fact that Bafut alone employs the SOV order, and only in negative sentences, makes considering the SOV pattern as basic rather suspicious. Intuitively, it seems more reasonable to consider the restricted instances of the surface SOV order as derived from the more general and frequently attested SVO pattern.

2.2 EVIDENCE FROM ACQUISITION DATA IN BAFUT

Evidence from language acquisition facts also argues in favor of a basic SVO word order in Bafut as against an SOV pattern. Children acquiring Bafut always start off using the SVO word order in all construction types, including negative sentences—which in adult speech exhibit an SOV pattern. It is only later in life (at about age four) that the children start employing the SOV word order in negative sentences. I take this to be evidence that the basic word order of Bafut is SVO. At the beginning of the language acquisition process the child internalizes this word order and uses it extensively (i.e. extending it to negative sentences). The child includes the SOV pattern in its repertoire of sentence patterns only when he or she has incorporated the notion of movement transformations into the cognitive system.

A possible counter to this argument could be that the word order which the child starts off with is the unmarked, and not necessarily the basic, word order. If we equate *unmarked* with *common* or *frequent,* then this argument weakens considerably. An examination of a child's daily experiences shows that children generally have wide exposure to a fair amount of adult utterances which command them not to do one thing or the other (e.g. "do not throw your food away", "do not open the door", "do not touch the stove", "do not turn the tap", etc., etc.). These commands at times make up more than half the total number of utterances the child hears from its peers on a daily basis. In Bafut such commands are negative utterances with the verb at sentence final position (SOV order)[5]. Thus, on a daily basis, the Bafut child is sufficiently exposed to both word orders in the language. It is therefore surprising that in spite of this exposure the child does not use the SOV pattern until much later in life. My hypothesis is that the SOV pattern is a derived one which the child learns only after it has had knowledge of specific syntactic processes.

2.3 EVIDENCE FROM VERB DISTRIBUTION IN BAFUT, GERMAN AND VATA INFINITIVAL CLAUSES

A language internal fact relating to the distribution of verbs in infinitival clauses suggests that Bafut is an SVO, and not an SOV, language. The nature of verb related movement processes in a variety of languages leaves one with the impression that it is the *finiteness* property of clauses that triggers these processes. Verb placement in child language acquisition supports this view. In German and Dutch for instance (see Verrips and Weissenborn 1992, as well as Clahsen and Penke 1986), children start to separate the verb from the negative morpheme only when they have had knowledge of finiteness. Thus, it seems, it is this finiteness property that leads them to move the verb away from a position where it is adjacent to the negative morpheme. From this one can conjecture that in infinitival clauses (which lack the finiteness property) verb related movement is absent. Therefore infinitival verb forms can be considered to occur in their base generated positions.

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[5] The acquisition facts presented here are based on personal observations of the acquisition of Bafut by children between the ages of one and six years.

With this in mind compare the following German and Vata examples (both SOV languages) in which the infinitival verb is sentence-final, with that of Bafut in which the infinitival verb precedes the object.

(11) ***German*** (Nowak, A. and W. Lechner (pc))
Ich werde zum Kaufhaus gehen, um das Brot zu kaufen
I will to.the store go in.order the bread to buy
I will go to the store to buy bread.

(12) ***Vata*** (Koopman 1984)
O nI wa na O ka mlI
he, she NEG want NA he, she FUT.A leave
He (or she) does not want to leave.

(13) ***Bafut***
a. **Bill kì kɔ̄ŋ á njhí mìjhī myā**
Bill TNS like to eat food the
Bill wanted to eat the food.

b. **Bill kì wā'ā kɔ̄ŋ á njhí mìjhī myā**
Bill TNS NEG like to eat food the
Bill did not want to eat the food.

c. **Bill kì bīī á ŋwā'ā jhī mìjhī myā**
Bill TNS agree to not eat food the
Bill agreed not to eat the food.

In German and Vata, the infinitival verb is at sentence final position. This confirms our claim that infinitival verb forms appear in their base generated positions (assuming the standard view that these two languages are SOV languages). In Bafut, on the other hand, the infinitival verb form precedes the object even in negative sentences which generally exhibit an SOV pattern. If our claim that infinitival verb forms occur in their base generated positions is correct, then given that the infinitival verbs in the Bafut negative sentences above precede rather than follow the object, it will be appropriate to assume that Bafut is an SVO language.

2.4 EVIDENCE FROM THE STRUCTURE OF NOMINALIZATIONS IN BAFUT AND VATA

The syntactic structure of nominalizations in Bafut, compared with that of a typical SOV language like Vata, provides more evidence to consider Bafut an SVO language. Koopman (1984) proposes the following internal structure for nominalizations in Vata:

(14) [NP GEN [VP ... V-**li**]]

(15) **kofi nI saka pi-li**
Kofi GEN rice prepare-NOM
Kofi's preparing (of) rice.

The nominalized verb follows its complements: this is an order which, according to Koopman, reflects the underlying position of the verb. Now compare the Vata case with that of Bafut:

(16) [[VP **n**-V][NP GEN NP]]

(17) **n-lāā mìkūū suh**
NOM-cook rice Suh
The preparation of rice by Suh.

In Bafut, unlike Vata, the nominalized verb precedes its complements. If Koopman's view that the position of the nominalized verb directly reflects the underlying position of the verb is correct, then Vata is an SOV language while Bafut is an SVO language.

An argument could be made against the above claim to the effect that the root **laa** from which the nominalized element **n-laa** 'preparing' is derived is basically a noun (as opposed to a verb). If this is the case, then (16) and (17) reflect the basic order of a noun modified by a Genitive Phrase, and not the order of a verb and its complements.

Notice, however, that **laa** does not exhibit any of the basic properties characteristic of Bafut nouns such as having a distinct class marker or a singular/plural affix. Thus for instance, the addition of a class marker or a singular/plural morpheme to **laa** results in ungrammaticality:

(18) a. ***bì-laa**
b. ***nì-laa**
c. ***à-laa**
d. ***mì-laa**

On the other hand, the behavior of **laa** is consistent with that of Bafut verbs (it combines with tense, aspect, etc.):

(19) **Bill kì sī lāā mīkūù**
Bill TNS ASP cook rice
Bill was cooking rice.

If **laa** shows the basic property of verbs and not of nouns, then it would be wrong to treat (16) and (17) as reflecting the underlying order of a head noun and a genitive complement. Therefore, we maintain the claim that (16) and (17) reflect the basic order of a verb and its complements, indicating that Bafut is an SVO-type language.

2.5 EVIDENCE FROM LINGUISTIC GENERALIZATIONS

In this section we discuss rather weak evidence for an SVO base for Bafut derived from Greenberg's Universals and corroborated by Dryer's Correlation Pairs.

One argument against considering Bafut an SOV language derives from Greenberg (1966). Using three sets of criteria (Subject/Object/Verb order, Prepositions as

opposed to Postpositions, and Adjective/Noun order) Greenberg proposes the following classification for 30 sample languages:

(20)

	I	II	III
Po-A	0	1	6
Po-N	0	2	5
Pr-A	0	4	0
Pr-N	6	6	**0**

I, II and III represent dominant VSO, SVO and SOV word orders respectively. 'Po' represents a language that employs Postpositions as opposed to prepositions while 'Pr' represents a language that uses prepositions as opposed to postpositions. 'A' represents a language in which qualifying adjectives precede the nouns they qualify while 'N' represents one in which the noun precedes the qualifying adjective. Thus, for example, the lone Po-A language under II is one in which the dominant word order is SVO and it employs postpositions rather than prepositions. In its NP, qualifying adjectives precede the nouns they modify.

It is interesting to note that none of the languages in Greenberg's sample employs prepositions instead of postpositions, places modified nouns before their modifying adjectives and yet has a dominant SOV word order (witness the number in **bold** text).

Bafut employs prepositions and places nouns before modifying adjectives. In addition, the predominant word order of Bafut is SVO. The example below illustrates the dominant SVO word order alongside the position of adjectives vis-à-vis the noun and also the distribution of prepositions.

(21) **táà wá kì kó nó yímfìì múm ndâ tsítsà yâ**
Man the TNS catch snake black in house teacher the
The man caught a black snake in the teacher's house.

If Greenberg's classification is anything to go by, then it casts doubts on the status of Bafut as an SOV language. The figures on the last row of the table—6 6 0—seem to indicate that when a language employs prepositions and places modified nouns before their modifiers, the dominant word order in that language is usually SVO and not SOV. If we equate dominant here to basic (as Greenberg's analysis seems to imply), then Bafut behaves more like an SVO than an SOV language, given that it employs prepositions and places nouns before adjectives.

Note that the evidence from Greenberg's universals is corroborated by Dryer's (1992) Correlation Pairs. Dryer discusses a set of pairs of elements which correlate in order with the verb and the object. Thus for instance, whereas SOV languages tend to order genitives before head nouns, complements before postpositions, modifying adjectives before modified nouns, and complements before verbs, SVO languages do just the opposite. An examination of correlation pairs in Bafut bears out Dryer's claims about ordering in SVO languages, as the following example shows.

(22) **bih kì fa ŋkà'à yifù'ù mbó mfɔ̀ bìfɨ̀ì**
Bih P2 give light bright to chief Bafut
Bih gave a bright light to the chief of Bafut.

To conclude this section, evidence from linguistic typology, language acquisition and theory-internal considerations has been employed to argue that it is more desirable to consider Bafut an SVO, than an SOV, language. If this is correct then the SOV pattern in negative sentences is derived from the underlying SVO order. In the next section it is shown how the surface SOV order is derived from the basic SVO pattern.

3. DERIVING SURFACE SOV WORD ORDER

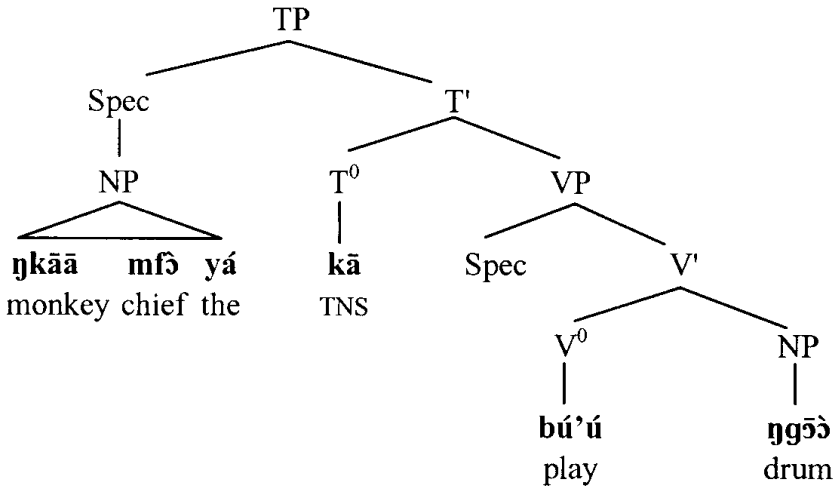
Having established the basic word order of Bafut, our next task is to describe the mechanism(s) by which the surface SOV structure of negative sentences is derived from the basic SVO pattern. It is proposed that negative sentences are derived via movement of the object to the left of the verb. Nonetheless, theoretical assumptions require object raising to the left of the verb in both positive and negative sentences. Assuming the correctness of this generalization, object shift in positive sentences will leave the verb in exactly the same position (sentence final position) as in negative sentences. To obtain the surface SVO order therefore, a verb raising rule is required to move the verb to the left of the raised object. Adverb Scope interpretation gives independent support for the verb raising rule. In negative sentences, the presence of the negative morpheme blocks verb raising, and thus the verb remains inside the VP where it occurs to the right of the raised object. In §3.1 the derivation of negative sentences is discussed, and it is pointed out that the object shift rule imposes a demand for verb raising in positive sentences. In §3.2 the verb movement process in positive sentences is described, and the weaknesses of the Minimalist Program are shown with regard to providing an adequate account of verb movement in Bafut. Then, in §4, an alternative theory of verb movement in Bafut is developed.

3.1 NEGATIVE SENTENCES

The discussion in §2 led to the conclusion that the verb in Bafut is base generated to the left of its complement. This would suggest that the constituent structure of the VP in a positive sentence such as (1), repeated here as (23), is as schematized in (24) below:

(23) **ŋkāā mfɔ̀ yá kā bú'ú ŋgɔ̄ɔ̀**
monkey chief the TNS play drum
The chief's monkey will play a drum.

(24)



Assuming this structure, the SOV word order attested in negative sentences could then arise in one of two ways, namely:

(25) By moving the verb to the right of the object
(26) By moving the object to the left of the verb.

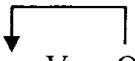
The first option—moving the verb to the right of the object (i.e. in sentence final position)—is ruled out by lack of motivation for rightward verb movement, as well as the absence of an appropriate host category to the right of the object NP. Since there are no head categories (the categories generally regarded as responsible for triggering movement and providing host positions for moved constituents) to the right of the sentence, nothing could possibly drive rightward verb movement. The second option—moving the object to the left of the verb—faces neither problem. Given this option (i.e. moving the object to the left of the verb), deriving the surface SOV order in negative sentences is straightforward. A sample derivation of a negative sentence is schematized in (27) below:

(27) [[$_{NP}$ **ŋkāā mfɔ́ yá**] [$_{Tns}$ **kā**] [$_{Neg}$ **wā?ā**] [$_{AgrOP}$ **ŋgɔ̄ɔ́**$_i$ [$_{VP}$ [$_{V}$ **bú?ú**] [$_{NP}$ t_i]]]]
monkey chief the TNS NEG drum play

As the derivation shows, the verb remains in its base generated position inside the VP, but the object moves to its left, thus yielding the surface SOV order in negative sentences. NP movement in this case comes as no surprise. It is generally assumed in syntactic analyses that the object NP moves (overtly or covertly) to the left of the verb in Spec–AgrOP to check case and phi-features in the usual Spec–Head relation (see Chomsky 1986 and 1995). This process is expected to apply in any clause containing a verb and a complement NP, since the case and phi-features of the NP will always be present in the derivation.

Assuming then that the object shifts to the left of the verb in both positive and negative sentences, a positive sentence which starts off with a basic SVO pattern will have to undergo an additional verb movement process in order to produce the accepted

surface word order. Let us see why this is so. Object shift produces the following structure in a positive sentence:

(28)  S V O ⟶ S O V

After object shift the verb remains in exactly the same position (sentence final position) as in negative sentences (see 27). Positive sentences would have the same SOV word order as negative sentences, were the derivation to end at this point. Therefore to account for the difference between positive sentences in which the verb precedes the object, and negative sentences in which the verb follows the object, another mechanism is needed which raises the verb to the left of the object in positive sentences, but is barred from doing so in negative sentences. In the next section, an account of verb movement in positive sentences is presented, and it is shown why current approaches are incapable of providing an appropriate account.

3.2 VERB MOVEMENT IN POSITIVE SENTENCES

As pointed out in the foregoing section, the object moves out of the VP to a position to the left of the verb. In order to yield the surface SVO order, the verb must also move out of the VP to a position to the left of the raised object. Independent evidence relating to Adverb Scope indicates that the verb always moves out of the VP. Consider the sentences below in which **tsī'ī** 'only' precedes the time adverbial **shîî** 'today' in (a), the PP **múm àbàà** 'inside a bag' in (b), and the NP **ŋkì** 'water' in (c).[6]

(29) a. **niba tū'ū ŋkì múm àbàà-á tsī'ī shîî**
Niba fetch water in bag-FOC only today
It is only today that Niba has fetched water inside a bag.

b. **niba tū'ū ŋkì-á tsī'ī múm àbàà shîî**
Niba fetch water-FOC only in bag today
Niba fetched water only inside a bag today.

c. **niba tū'ū-á tsī'ī ŋkì múm àbàa shîî**
Niba fetch-FOC only water in bag today
i. Niba fetched only water inside a bag today.
ii. Niba only fetched water in a bag today.

These examples indicate that **tsī'ī** has scope over the constituent it immediately precedes. Thus (a) means that Niba has never fetched water in a bag except for today; while (b) means that Niba fetched water using only a bag (to the exclusion of other available containers). Example (c) is open to two interpretations. In one, the only thing

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[6] In these sentences, **tsī'ī** 'only' functions as an adverb in (c) but as a limiter adjective in (a–b). (The author is grateful to the *JWAL* Editor (pc) for this observation.) In (a–b), **tsī'ī** falls in the same category as another special group of adjectives in Bafut which precede the noun they qualify, unlike ordinary adjectives which follow the noun. Examples include:

a. **mámù'ù nda**
mighty house
a mighty house

b. **àndáŋə́ ndəŋnə̂**
long bamboo
a very long bamboo

c. **múkuǹ ŋù**
short person
a short person

that Niba fetched today in a bag was water. In the other, the only thing Niba did today was fetch water in a bag. Notice that it does not suffice for **tsī'ī** to be adjacent to the relevant constituent. It must precede (and therefore C-command) the constituent. This is confirmed by the fact that though **tsī'ī** is adjacent to **àbàà** 'bag' in (a) and to **ŋkì** 'water' in (b), it does not have scope over either of them. Considering that **tsī'ī** always precedes the constituent over which it has scope, we expect that in (c) with the interpretation in (ii), it should precede the VP—since in this case it clearly has scope over the VP. The fact that the verb is instead to the left of **tsī'ī,** indicates that one of the two (either the verb or the adverbial) has moved. The hypothesis adopted here is that the adverbial is left adjoined to the maximal projection containing the constituent over which it has scope. Thus in (c (ii)), **tsī'ī** is left adjoined to the VP. The verb raises out of the VP, and is thus positioned to the left of the adverbial.

There is therefore evidence that the verb moves out of the VP. But what drives this movement? There are two possible answers to this question, namely: (a) verb movement is a function of the ECP applied to heads, or (b) verb movement is in response to feature checking. Before presenting the hypothesis to be adopted (a modified version of the feature checking approach), let us first consider the alternative ECP account. Travis (1984) argues that head-to-head movement is driven by the ECP. Empty heads, in her view, must be properly governed or filled. Thus in V^0–to–I^0 raising for instance, the verb raises to the I^0 position because this empty position is not properly governed. This approach apparently provides a principled account for why the verb moves in Bafut: an empty attracting head position lacks a proper governor, and to avoid an ECP violation, the verb moves and fills this position. This approach however will not explain why heads like AgrOP and C^0 can remain empty. Moreover, Schwartz and Vikner (1989), and Schwartz and Tomaselli (1991) have argued that this approach makes wrong predictions about German constructions like the one below, in which although the matrix verb governs the C^0 position of the embedded verb, subject-verb inversion is still obligatory.

(30) a. **Womit glaubte sie hatte das Kind das Brot gegessen?**
With.what thought she had the child the bread eaten
With what did she think the child ate the bread?

b. ***Womit glaubte sie das Kind hatte das Brot gegessen?**
With.what thought she the child had the bread eaten
Schwartz and Vikner (1989:41)

According to the ECP approach, since the empty C^0 position of the embedded verb is properly governed by the matrix verb, it does not violate the ECP; so verb (Aux) movement into this position should not be necessary. However the ill-formedness of the (b) example shows that this movement is obligatory. Because of these problems which Travis's ECP approach faces, the Minimalist view will be adopted here, which attributes verb movement to a requirement for features to be checked. However, the Minimalist position will be modified substantially in order to account for the Bafut facts.

In the Minimalist Program every instance of movement is motivated by the need to check a feature. According to this framework, features represented on functional heads trigger both head movement (to the functional head) and XP movement (to the specifier position of a functional head). In the case of verb movement, the claim is that the verb raises out of the VP in order to check a finiteness feature (+F feature) represented in tense/agreement morphology. In Bafut, we expect the finiteness feature to be represented in the tense morphology. In this case the verb should raise to the functional head bearing the tense morphology in order to check the +F feature. However, as the structure below shows, the verb does not raise up to the Tns functional head position.

(31) $[_{TP}[_{NP}$ **ŋkāā mfɔ̄ yā**$]$ $[_{T}$ **kɨ̀** $[_{Asp}$ **sɨ̄** $[_{??}$ **búʔú** $[_{VP}[_{V}$ $t_i][_{NP}$ **ŋgɔ̄ɔ̄**$]]]]]]$
monkey chief the TNS ASP play drum

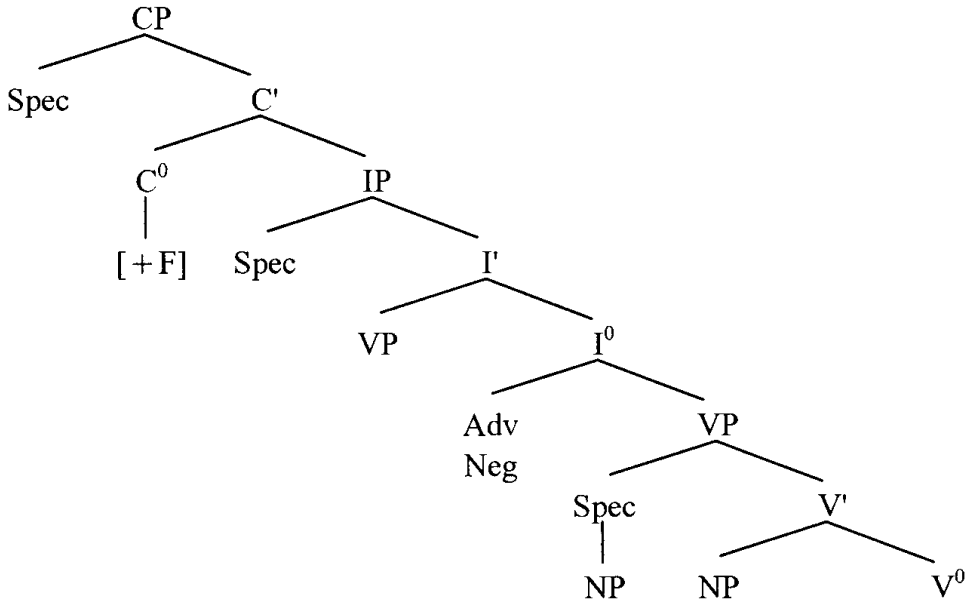
One could argue that tense plus aspect constitute a complex (single) morpheme located in the Tns functional head position. In which case the verb could be claimed to have moved to the Tns functional head position. This argument, however, weakens considerably when one considers the fact that adverbs (which are adjoined to maximal projections) can separate the verb from tense/aspect, as illustrated in (32) below.

(32) **ŋkāā mfɔ̄ yā kɨ̀ wàŋsə́ ŋkā mbú'ú ŋgɔ̀ɔ̀**
monkey chief the TNS often ASP play drum
The chief's monkey was often playing a drum.

If the verb is in a position where it is not adjacent to tense, a reasonable conclusion to draw is that it has not moved up to the Tns functional head position, which is supposed to host the feature that triggers movement. This raises the question whether the trigger of verb movement is represented in the tense morphology, as the Minimalist Program claims. One may go even further to question whether the trigger of verb movement is actually the +F feature propounded by Minimalism. The hypothesis adopted here is that verb movement is not triggered by a +F feature represented in tense/agreement morphology. Verb-second phenomena in child German and French, as well as the position of the verb in adult French and Italian, lend credence to this hypothesis.

An analysis of the development of verb-second phenomena in the earliest word combinations of a German child, Simone, shows that V–to–I–to–C raising is not tied to the acquisition of tense/agreement morphology. Verrips and Weissenborn analyzed five months' recordings of Simone, from age one year and nine months, to age two years and two months, beginning with the first multi-word utterances. The analysis aimed at providing evidence for two hypotheses. First the basic correctness of the *continuity hypothesis* (Verrips 1990, Weissenborn, Goodluck and Roeper 1992), i.e. the hypothesis that child syntax is adult-like with respect to verb placement. Second, for the *independence hypothesis:* that finiteness and verb-second in German develop independently of subject-verb agreement morphology; more specifically that V–to–I–to–C movement develops before the paradigm of subject-verb agreement has been completely mastered. In their analysis they propose that German children start off with the structure set out in (33) below.

(33)



(Verrips and Weissenborn 1992:286)

In this structure, sentence adverbs like **mal**, **noch**, **jetzt**, **auch** and sentence negation **nicht** are base generated as VP adjuncts. A postverbal sentence negator or adverb indicates that the verb must have undergone movement to C^0, while a preverbal one indicates that the verb is in V^0. Their analysis shows that Simone systematically places negation and adverbial elements both before and after the verb. The conclusion to draw from this is that postverbal positioning of negator and adverbs is an indication of the verb's position in C^0. At this stage in the acquisition process, Simone has not yet mastered the subject-verb agreement system of German. If the Minimalist claim that the trigger of verb movement is a +F feature in tense/agreement morphology is correct, then one will be hard put to explain how Simone gets to placing verbs in V-second position. The facts rather seem to suggest that if indeed the trigger of verb movement is a +F feature, this feature is not represented in tense/agreement morphology, since the child is able to move verbs before mastering the tense agreement morphology.

A similar study on two French children, Fabienne and Philippe, support the conclusion reached for German, that the development of finiteness is independent of subject-verb agreement. The study showed that the French children, like their German counterparts, position verbs before the negative particle **pas**. At this stage in the acquisition process the children have not yet acquired the subject-verb agreement system of French yet they are able to move the verb past the negative element which is hierarchically ordered above the VP. This again shows that verb movement is not tied to tense/agreement morphology. Therefore, if the trigger of verb movement is the +F feature, this feature is not represented in the tense agreement morphology.

At this point in the discussion one could maintain the Minimalist claim that the trigger of verb movement is a +F feature, but in the spirit of the foregoing paragraphs, this feature is not represented in tense/agreement morphology. There is however evidence from the placement of infinitival verb forms in adult French and Italian which suggests that the trigger of verb movement is not a +F feature. In the French

and Italian sentences below the position of the verb indicates that it has raised out of the VP.

(34) *French*

a. **Comment lui expliquer soigneusement cela?!**
How him explain carefully that
How can one carefully explain that to him?!

b. **Pourquoi annoncer encore ce type de nouvelles?!**
Why announce again that type of news
Why announce that type of news again?!

(35) *Italian*

a. **Che cosa dire in questi casi?!**
What say.INF in these cases
What to say in these cases?! (Rizzi 1990)

b. **Che cosa dire ancora in questi casi?!**
What say.INF again in these cases
What can one say in these cases?! (Carminati, Maria Nella (pc))

c. **Che cosa dire oggi in questi casi?!**
What say.INF today in these cases
What can one say in these cases today?! (Carminati, Maria Nella (pc))

If verb movement were crucially tied to finiteness, which Verrips and Weissenborn (1992:323) consider a property that is related in a not well understood way to tense, mood and illocution, then we are hard put to account for the position of the verb in these examples. The verbs are non-finite, yet they occur in derived positions (i.e. positions to which they must have arrived via movement). A reasonable conclusion to draw is that the trigger of verb movement in these cases is not a +F feature, since these verbs are not finite. Assuming this to be correct, then by extension, the trigger of verb movement in general is not the traditional +F feature.

As a reminder, the evidence from German, French and Italian has confirmed two facts about verb movement in Bafut, namely: (a) the trigger of verb movement (whatever it is) is not represented in tense morphology; and (b) the trigger of verb movement is not the traditional +F feature. In the next section a theory of verb movement is developed which accounts for the facts of Bafut.

4. AN ALTERNATIVE ACCOUNT OF VERB MOVEMENT

As argued in the previous sections, the nature of verb movement in Bafut, child German and French, as well as adult exclamatives in French and Italian, show that what drives verb movement is not the traditional +F feature. What then drives verb movement? The semantic interpretation of positive and negative sentences in Bafut gives us a clue. Compare the meaning of the positive sentence in (a) to that of the negative sentence in (b) below.

(36) a. **ambeyəə̄ kòò**
Ambe sing.ASP song
Ambe is singing a song.

b. **kāā ambe sí kòò yəə̀**
NEG Ambe NEG song sing
Ambe does not sing.

The speaker in (36a) makes reference to a specific moment relative to the speech time: at the moment of speaking, Ambe is singing a song. In (36b) on the other hand, the time reference is not specific, as it is not necessarily the case that at the moment of speaking Ambe is not singing a song. The utterance is rather interpreted as meaning that it is a general habit of Ambe's that he does not sing. The major difference between (36a) and (36b) that gives rise to the different interpretations is that in (36a), but not in (36b), the verb has moved out of the VP. Recall from earlier discussions (see §3.2) that in Bafut positive sentences the verb raises out of the VP, but in negative sentences something about the negative property of the sentence blocks verb movement out of the VP. As the difference between (36a) and (36b) now shows, movement (or absence of it) correlates in an interesting way with meaning. In exactly those instances where the verb moves (e.g. in (36a)), the utterance receives a specific time reference interpretation which is not available in cases where the verb does not move (e.g. in (36b)). In negative sentences like the one in (36b) where the verb does not move, in order to make reference to a specific point in time the language resorts to the use of temporal adverbials as illustrated in (37).

(37) **kāā ambe sí kòò tsītsə̀ŋ yəə̀**
NEG Ambe NEG song now sing
Ambe is not singing a song now.

One may then conjecture that the verb moves in order to receive a specific referential interpretation. In Minimalist terms this implies that verb movement is driven by the need to check a referential feature hierarchically represented in a functional head above the VP. The view that the verb moves in order to receive a specific referential interpretation in Bafut is supported by the interpretation of English sentences containing main and auxiliary verbs. Compare the interpretation of (38a) with that of (38b).

(38) a The professor of linguistics dances.
b. The professor of linguistics is dancing.

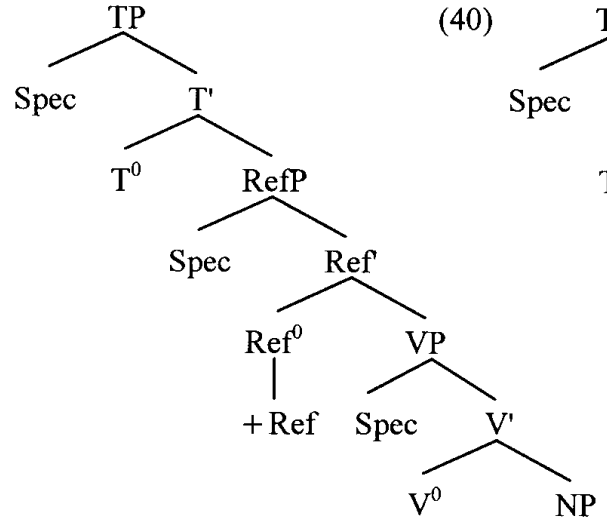
Example (38a) has a generic interpretation, while (38b) has a specific interpretation. One of the major syntactic differences between the two sentences is that one (38a) has a main verb while the other (38b) has an auxiliary plus main verb. According to Pollock (1989), auxiliary verbs in English move but main verbs do not. Example (38b) contains an auxiliary verb which, according to Pollock, is supposed to have moved to a derived position (possibly I^0). In this case where movement is supposed to have occurred, the utterance has a specific time reference reading: at the moment of speaking the professor of linguistics is dancing. Example (38a), on the other hand, contains only

a main verb which is supposed not to have moved out of the VP, and the utterance has a generic reading: dancing is a habit of the professor's. It is therefore reasonable to claim that verbs move in order to acquire a specific time reference.

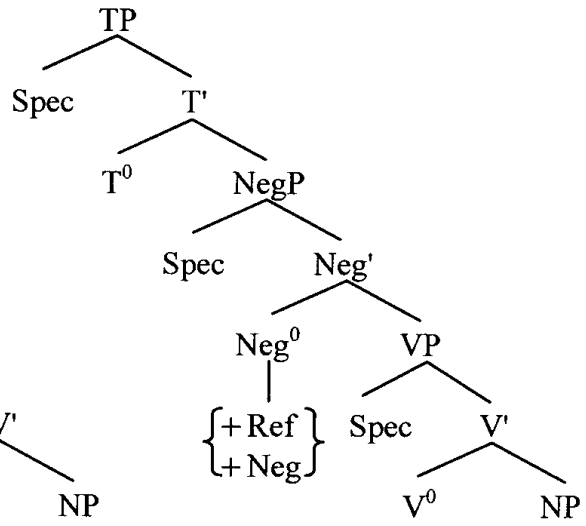
Based on the foregoing and on suggestions from Roeper (pc), I conclude that, at least in the case of Bafut, verb movement is motivated by the need to check a Referential feature (henceforth +Ref). What remains to be done is to determine the Location of this referential feature. It has so far been observed that verb movement and negation are in complementary distribution in Bafut, such that verb raising occurs only when negation is absent. The discussion in the preceding section has also shown that verb raising is crucially tied to the presence of the +Ref feature. From these facts, it is logical to claim that +Ref and a negative feature are in complementary distribution. As for the representation of these two features (+Ref and +Neg), we can assume one of two things:

1. +Ref projects a separate category (call it Referential Phrase – RefP) giving us the representation in (39).
2. The Head of the Negative Phrase (NegP) hosts +Neg in negative sentences and +Ref in positive sentences giving us the representation in (40).

(39)



(40)



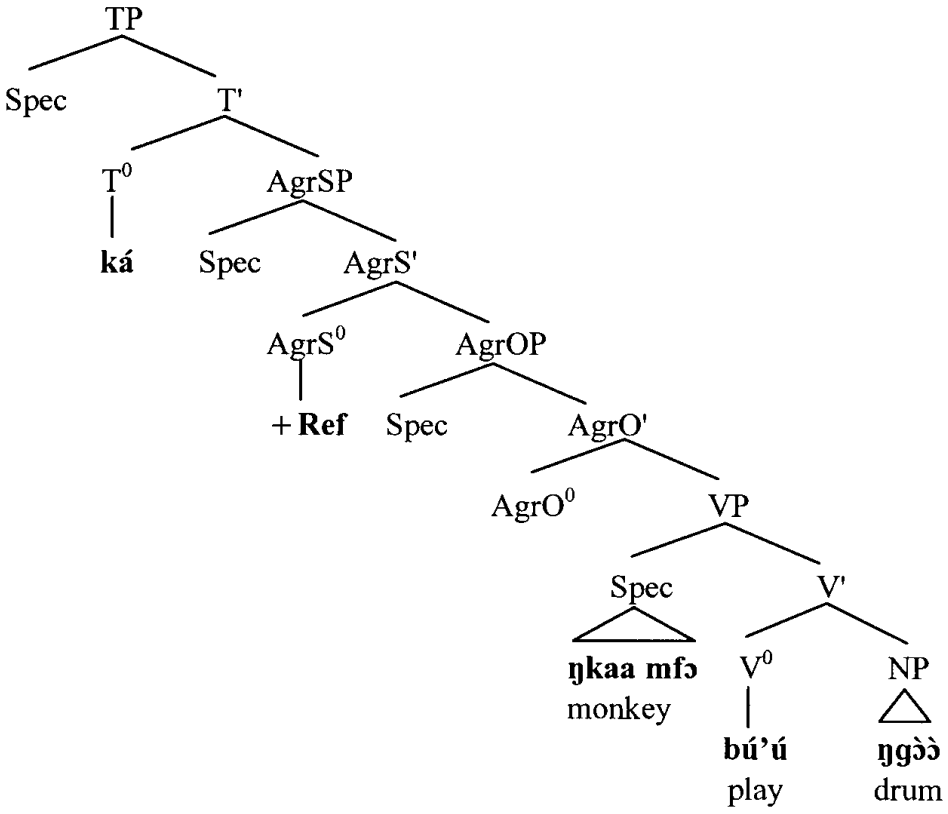
Theoretically, both representations can handle the Bafut data. However, (40) has a slight advantage over (39) in that it makes use of phrase types recognized in the literature (see Pollock 1989 and Zanuttini 1996 for proposals regarding NegP). The representation in (39), on the other hand, makes use of RefP, which to the best of my knowledge is a novelty whose existence has not yet been established cross-linguistically. Given the need to reduce syntactic representations to a minimum, I will not adopt the representation in (39). With regard to (40) the question still arises as to why a NegP should be projected in the positive sentence in the first place. To reconcile the two positions (i.e., not introducing a new phrase type, RefP, and not projecting NegP in a positive sentence), I will adopt Pollock's (1989) views about Phrase structure and Koopman's (1984) proposals regarding verb movement in Vata. Based on facts regarding verb movement in Romance and Germanic languages, Pollock (1989) proposes that IP be broken down into TP and AgrSP. From his proposal, I will assume the following for Bafut: The head of the sentence is Tns. Tense subcategorises AgrSP in positive sentences and NegP in negative sentences. The head of AgrSP hosts the

+Ref feature while the head of NegP hosts the +Neg feature. A positive sentence like (1), repeated here as (41), will thus have the underlying representation in (43); while a negative sentence such as (2), repeated here as (42), will have the underlying representation in (44).

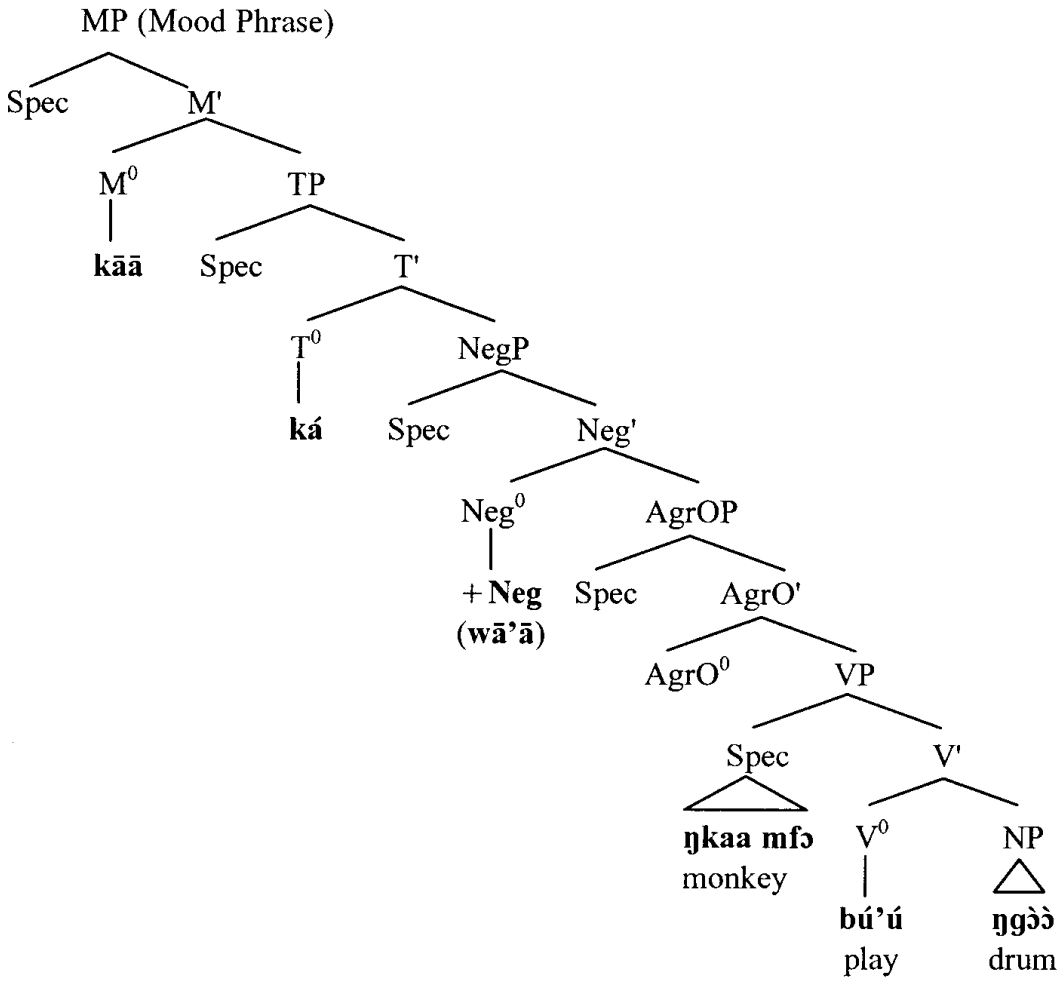
(41) **ŋkāā mfɔ́ yá kā bú'ú ŋgɔ̄ɔ̀**
monkey chief the TNS play drum
The chief's monkey will play a drum.

(42) **kāā ŋkāā mfɔ́ yá kā wā'ā ŋgɔ̀ɔ̀ bú'û**
NEG monkey chief the TNS NEG drum play
The chief's monkey will not play a drum.

(43)



(44)



In the derivation in (43), the subject NP (chief's monkey) moves to Spec-TP while the object NP moves to Spec-AgrOP to check case and phi-features. Verb movement then proceeds in a manner similar to that obtaining in Vata (Koopman 1984), where the verb raises to Infl (Tns/Agr in current terms)[7]. Similarly to the Vata facts, the Bafut verb in the representation in (43) raises up to $AgrS^0$, where it picks the +Ref feature. These three movements give us the expected surface SVO order. In the negative sentence represented in (44) on the other hand, since negation and verb movement are in complementary distribution, the presence of the negative marker bars verb movement, and so it remains in its base-generated position inside VP. After movements of the subject and object NPs to Spec-TP and Spec-AgrOP respectively, we obtain the surface SOV order in negative sentences.

5. CONCLUSION

This article sets out to determine the basic word order of Bafut and to develop a theory of verb movement which explains the Bafut data and also recognizes a +Referential feature, and not a +Finite feature, as the trigger for verb movement in the Minimalist Program (Chomsky 1995). Based on genetic relationship, theoretical and empirical evidence, the article argues that Bafut is an SVO type language. Variant

[7] Note however that one major difference between Bafut and Vata is that whereas Vata is underlyingly an SOV language, it is demonstrated in this article that Bafut is underlyingly an SVO language.

surface word orders are then derived via NP movement and verb raising. Verb movement is driven by the need for the verb to acquire a specific time reference interpretation and not to check a +F feature as currently recognized by the Minimalist Program. It is suggested that this specific time reference feature is located in $AgrS^0$. Its presence drives verb movement in positive sentences and not in negative sentences because the +Neg feature in negative sentences is in complementary distribution with the +Ref feature in positive sentences.

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