

GRAMMATICAL FUNCTIONS OF THE NASAL PREFIX IN BAFUT

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In certain constructions in Bafut¹, a nasal prefix which shares the place of articulation features of a following oral consonant is attested in the initial position of specific words. We find this nasal prefix in nominals (simplex and derived), tense marking, same subject coreference, serial verb constructions, consecutive structures, and syntactic repetition. Wherever it occurs, its origin and function are not immediately clear. Earlier scholars (e.g. Ambe (1989), Mfonyam (1989), Tanda (1993), Tamanji (1999), etc. have attributed varying functions such as tense marking, morphological noun class marker, logophoric pronoun, serialization morpheme, derivational morpheme, marker of consecutivisation, etc. to this nasal prefix. I argue that all these different functions can be subsumed under two major roles: in the nominal system, the nasal prefix serves as a noun classifier (i.e. noun class marker or a nominalization prefix). Other constructions contain multi-verbs and the nasal prefix serves in this case to mark the second or subsequent verbs as the participle form.

Dans certaines constructions en bafut, le préfixe nasal partageant les mêmes caractéristiques de la place d'articulation de la consonne orale subséquente, peut se retrouver en position initiale de certains mots. Ce préfixe nasal se retrouve dans les constructions nominales (simples ou dérivées), le marquage temporel, les sujets co-référentiels, les constructions à verbes sérialisés, les structures consécutives et la répétition syntaxique. Des contemporains à l'instar de Ambe (1989), Mfonyam (1989), Tanda (1993), Tamanji (1999), etc. ont attribué des fonctions variées telles que le marqueur temporel, le marqueur morphologique de classe nominale, le pronom logophorique, les morphèmes de sérialisation, les morphèmes dérivationnels, le marqueur des constructions consécutives au préfixe nasal. Dans cet article, nous démontrons que toutes ces différentes fonctions jouent deux rôles majeurs: dans le système nominal, le préfixe nasal joue le rôle de classificateur nominal (c'est-à-dire le marqueur de classe nominale ou préfixe de nominalisation). Les autres constructions ont des verbes multiples et le préfixe nasal sert dans ce cas à marquer le deuxième ou les autres verbes comme formes du participe.

0. INTRODUCTION

In Bafut a nasal consonant is attested at the initial position of words in various constructions. This phenomenon is quite extensive as it is attested in the noun class system, noun derivation, tense marking, serial verb constructions, consecutive formation, switch reference, and syntactic repetition. While most previous scholars agree, more or less, on its role in the nominal system, there is very little agreement on the role of this ubiquitous nasal in all the other construction types. In the tense system for instance, Mfonyam (1989) treats the nasal as part of the today and the remote past tense morphemes while Bila (1986) treats it simply as an element of the verb phrase. In the switch reference and logophoric pronoun system, Tamanji (2009) tacitly refuses to agree with Mfonyam's analysis of the nasal consonant as a *same subject marker*. In coordinate constructions, Tanda (1993) considers the nasal to be one of the primitive morphemes that make up the coordinating element in Bafut.

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¹ Bafut is a Zone A language (code 912) belonging to the Ngemba subgroup of Grassfields Bantu languages spoken in the North-West Region of Cameroon.

The present study argues that the nasal consonant has only two functions in Bafut. In the nominal system, it functions as a noun classifier, i.e. it classifies nouns into singular versus plural classes or as derived versus simplex nominals. In all the other constructions, the nasal consonant is a feature of verbal elements which serves simply to mark the participle form of verbs. Beginning with the most controversial case in tense marking, it is shown that tense markers in Bafut are derived from verbs via grammaticalisation (Heine and Reh 1984). Because these tense markers are originally verbs, they require following verbs to occur in the participle form which is marked by a nasal prefix. Differences in the stages of grammaticalisation as well as phonological and syntactic factors, including co-occurrence restrictions and adjacency requirements, account for cases which appear to be exceptions. Extending the analysis to other constructions, it shall be argued that the nasal consonant surfaces in same subject coreference, consecutive structures, coordination and syntactic repetition simply because these are multi-verb constructions.

The article is organized as follows: Section 1 introduces the subject matter of the study by examining the case of the nasal consonant in the nominal system. Section 2 handles the case of the nasal in tense marking showing that tense markers are derived from verbs. Section 3 then extends the analysis to other constructions and points out some residual problems that remain to be solved. Section 4 concludes the paper.

1. THE NOMINAL SYSTEM

A nasal consonant appears in various nominal constructions in Bafut. The occurrence of the nasal in these expressions has been reported in various studies including Ambe (1989), Mfonyam (1989), Tanda (1993), Tamanji (1999). While opinions about its function differ especially depending on theoretical considerations, all authors agree on its presence in the different construction types. The conclusions arrived at regarding the grammatical function of the nasal in these studies are presented in the subsections that follow.

1.1. THE NOUN CLASS SYSTEM

Bafut nouns are grouped into various morphological classes depending on concord marking, morphological affixes and plural formation. The morphological prefixes are usually either a simple vowel, a syllabic nasal, or a consonant-vowel sequence. The different morphological prefixes are presented in Table 1.

Table 1: Bafut noun class prefixes

Singular classes		Plural classes	
Class NO.	Prefix	Class NO.	Prefix
1a, b	o- , N-	2	b-
3a, b	- , N-	---	---
5	n-	6	m-
7	-	8	-
9	N-	10	N-
19	f-		

The prefix for classes 1b, 3b, 9 and 10 is a syllabic nasal. It attaches to the noun root and assimilates to the place of articulation of the initial root consonant as illustrated in (1).

- (1) **N-b** → **b** goat cl 9
N-tàŋ → **-tànŋ** hut cl 3
N-g.r_ɣ → **g.r_ɣ** gun cl 3

In most analyses of Bafut (Mfonyam 1989, Ambe 1989, Tamanji 1999), this syllabic nasal is considered a class prefix. Generally, the class prefix in Bafut marks a noun for number such that the singular prefix is regularly replaced by a plural prefix to indicate change from a singular to a plural form of the noun. For instance, the singular prefix - of class 7 is replaced by - of class 8 as illustrated in (2).

- | | | | | |
|-----|------------------------|------------------|------------------------|---|
| (2) | SG class | | PL class | |
| a. | -b^ɔ | door | -b^ɔ | |
| b. | -l_ɔŋ | chair | -l_ɔŋ | |
| c. | -bɪ'ɪ | shoulder | -bɪ'ɪ | |
| d. | -kr | foot | -kr | |
| e. | -t | head | -t | |
| f. | -kŋ | Pan, dish, plate | -kŋ | This regular prefix switch in number marking is however |

broken when the singular class prefix is a nasal. While the singular prefix of class 1b nouns generally changes to a different prefix in the plural, those of classes 3b and 9 remain unchanged in the plural. Consider plural formation of classes 1b, 3b and 9 in (3-5).

- | | | | |
|-----|-------------------------------------|-------------|--------------------------------------|
| (3) | Class 1b nouns | | PL/class 2 |
| a. | -f | chief | b-f |
| b. | -d | husband | b-l |
| c. | -j_ɔ.r_ɣ | thief | b-j_ɔ.r_ɣ |
| d. | -k_ɔm | noble | b-k_ɔm |
| e. | -bw_ɔŋk | lame person | b-bw_ɔŋk |

- | | | | |
|-----|----------------|-------|-------------|
| (4) | Class 3b nouns | | PL/class 6 |
| a. | -t | heart | m-nt |

b.	-tɲ	neck	m-ntɲ
c.	-gɲ	root	m-ɲgɲ
d.	-g.r	gun	m-ɲg.r
e.	-tsɿ	mouth	m-ntsɿ
f.	-b.	cliff	m-mb.

(5)	Class 9 nouns		PL/class 10
a.	-b	dog	-b
b.	-b	goat	-b
c.	-d	house	-d
d.	-b	animal	-b
e.	-gw	chicken	-gw
f.	-dz	axe	-dz

While class 1b singular nasal prefix regularly changes to plural prefix **b-**, the class 3b prefix does not change in the plural. The nasal consonant is carried over into the plural form where it exists as part of the stem and a new plural prefix is added. In class 9, the same nasal prefix is used to mark the plural forms of class 10. While the nasal prefix of class 1b nouns can clearly be considered a class marker, the same treatment cannot easily extend to that of classes 3b and 9. Faced with a similar problem in Ewondo (an Equatorial Bantu language) Mutaka and Tamanji (2003) propose an alternative analysis. They treat the nasal element in the plural forms of class 3b and 9 nouns as a primary prefix. The plural marker of class 3b nouns **m-** is treated as a pre-prefix. As for class 9, the nasal consonant is simply treated as part of the nominal root. Thus the class prefix for both classes 9 and 10 is a zero morpheme. In keeping with Bantuists' tradition however, I will continue to treat the nasal consonant in classes 1b, 3b, 9 and 10 in this study as a class marker. The plural formation of class 3b nouns exhibits special forms in which the nasal has undergone reanalysis and functions as part of the nominal root in these cases.

1.2. NOUN DERIVATION

Derived nominals in Bafut may be classified into five types based on the type of derivational prefix and on the categorial status of the root involved. These classes of

derived nouns are: deverbatives, agentive nouns, augmentatives, diminutives and negative nominals. In this section, our attention is on agentive nouns. See Tamanji (2009)'s discussion on the other forms of derivation.

What I have decided to call *agentive nouns* in Bafut divide into two categories; (i) a category very similar in interpretation to the possessive-ing gerund in English, (ii) a category that refers to the agent of the action expressed by the verb. Agentive nouns in Bafut are formed by prefixing a nasal consonant to a verb root. This nominalization prefix in category (i) nouns is similar in form and behavior to the prefix of ordinary class 9 nouns (cf 6) while that of category (ii) nouns is similar to the prefix of ordinary class 1b nouns (cf 7). The verb root can be transitive or intransitive. In the former case, the object of the verb root obligatorily accompanies the derived noun except in cases where the object is directly implied in the meaning of the verb. The examples in (8) specifically signify agents of the action.

(6) Intransitive verb roots: N-V < V_{intr}

		the act/manner of		Imperative
a.	-bw_ɔ	sleeping	<	bw
b.	-l	jumping	<	l
c.	-kx_ɔ	running	<	kx_ɔ
d.	-w	falling	<	w
e.	-ɜ_ɔ	coming	<	ɜ_ɔ
f.	-y^h	going	<	y^h

(7) Transitive verb roots

a.	-l mk				
	N-cook beans	cooking beans	<	l	cook!
b.	-b_ɔ-d_ɔ				
	N-build house	building houses/ house building	<	b	build!
c.	-k_ɔ f-bw				
	N-fry fish	frying fish/ fish frying	<	k_ɔ ɲ_ɔ	fry!
d.	-l_ɔ m-l_ɔ'_ɔ	tapping palm wine/ palm wine tapping	<	l_ɔ ɲ_ɔ	tap palm wine!

(8) Agent nouns

a.	-b_ɔ-d_ɔ	builder	<	b	build!
b.	-f_ɔ'_ɔ m-b	meat merchant	<	f_ɔ'_ɔ	sell!
c.	-k m-ɲkb	wood carver	<	k	carve!
d.	-w m-b	butcher	<	w	slaughter

The function of the nasal consonant in these cases is obvious. The nasal here functions simply to derive a noun from a corresponding verb root. The nouns thus derived behave,

in terms of plural formation and concord marking, just like ordinary class 1b or class 9 nouns.

To summarise, the nasal consonant functions in the nominal category as a noun classifier: it classifies nouns into singular versus plural classes or as derived versus primitive nominals.

2. THE VERBAL SYSTEM

While one can assume a straightforward function for the nasal consonant in the nominal category, in the verbal category where the use of this nasal is a very common feature, it is often difficult to say with certainty what role it plays. As pointed out in the introduction, in the tense system, Mfonyam (1989) treats the nasal consonant as part of the today and remote past tense morphemes while Bila (1986) treats it simply as an element of the verb phrase. In the switch reference and logophoric pronoun systems, Tamanji (2009) tacitly refuses to agree with Mfonyam's analysis of the nasal as a 'same subject marker'. In coordinate structures, Tanda (1993) considers the nasal consonant to be one of the primitive morphemes that make up the coordinating element in Bafut. Let us first look at the situation in tense marking where the status of the nasal consonant can clarify the function in the other constructions.

2.1 TENSE MARKING

The nasal consonant surfaces on following verbal elements when some past tense markers are used. Generally, it surfaces when the today past tense and the remote past tense markers are used. The past tense markers are presented in the table below alongside their future counterparts. Following the table are illustrations of the use of the past tenses. In these, and subsequent examples, in the glosses, digits on nouns indicate noun class.

Table 2: Bafut Past and future tense markers

Past tense morphemes		Future tense morphemes	
		ká	General future (F0)
l	Today past (P1)	ká l	Today future (F1)
k	Yesterday past (P2)	ká l	Tomorrow future (F2)
l	Remote past (P3)	ká j	Remote future (F3)

(9) a. **à l -t' -kx₇ mm -t₇**
 He P1 N-fetch 1-water inside 7-calabash
 'He fetched water in a calabash (earlier today).'

b. **à k t' -kx₇ mm -t₇**
 He P2 fetch 1-water inside 7-calabash
 'He fetched water in a calabash (yesterday).'

c. **à l -t' -kx₇ mm -t₇**

He P3 N-fetch 1-water inside 7-calabash
 'He fetched water in a calabash (a long time ago).'

The nasal consonant appears on the following verb when either the P1 or the P3, but not the P2, marker is used. Based on equivalent examples, Mfonyam (1989:216 - 220) analyses the nasal consonant as part of the P1 and P3 tense morphemes. In his analysis, the P2 marker does not have this nasal consonant. Following the logic of his analysis, the form of the P1 and P3 morphemes should be **IN** and **IN** respectively (the nasal eventually assimilates to the place of articulation of the following oral consonant). From a purely structural point of view, making the nasal the final consonant of the tense morpheme, as implied in Mfonyam's analysis, does not look very attractive. In the entire tense system, the majority of the tense markers have an open syllable structure: CV; only the P1 and P3 morphemes will have the exceptional close (i.e. CVC) syllable structure.

Apart from this aberration in syllable structure, more serious problems arise if we consider the nasal consonant as part of the tense morpheme. In the first place, notice that in antecedent sequence clauses, when the conditional marker **b** intervenes between the tense morpheme and the verb, the nasal consonant no longer surfaces on the verb. The same happens when the post subject negative morpheme **wá'** is inserted. Consider examples (10) and (11).

- (10) a. **l b ʒ bŋ s kw**
 he P1 Cond come then we die
 'If he had come, we would have been in trouble.'
- b. **l b ʒ bŋ s kw**
 he P3 Cond come then we die
 'If he had come, we would have been in trouble.'
- (11) a. **k à l w.' f-bw á -b t k.ŋ**
 Neg he P1 Neg 19-fish Prep 10-hands father fry
 'He did not fry fish for father.'
- b. **k f w à l w.' dàà ml̩' ts' j̩ n**
 Neg chief the SM P3 Neg calabash palm wine only him drink
 'The chief did not drink a calabash of palm wine alone.'

So it seems to be the case that when some element intervenes between the tense morpheme and the verb, the nasal consonant no longer surfaces. But if the nasal consonant is part of the P1 and P3 tense morphemes, then we expect it to surface every time that these tense morphemes are used. Its absence in these examples is therefore a surprise in Mfonyam's analysis.

Another fact which raises questions about Mfonyam's analysis which makes the nasal consonant part of the P1 and P3 tense morphemes is the fact that the nasal consonant also appears when the future tense morphemes are used in contexts that do not require use of the general future tense marker **k..** (Recall that in Mfonyam's (1989) analysis the nasal consonant is an exclusive feature of P1 and P3). Compare examples in (12).

- (13) a. **f** **w** **l** **-wàŋs₇** **-bw** **-bn₇** **-fi'** **ɹ-t-ɣl**
chief the P1 N- N-sleep N-wake N-go N-walk N-go
 quickly up
 'The chief went to bed early, got up and left.'
- b. **f** **w** **k** **wàŋs₇** **-bw** **-bn₇** **-fi'** **ɹ-t-ɣl**
chief the P2 quickly N-sleep N-wake N-go N-walk N-go
 up
 'The chief went to bed early, got up and left.'

In these examples, although we gloss **-wàŋs_{ɔ̃}/wàŋs_{ɔ̃}** as an adverb (quickly), it actually has the meaning of a verb in the language (to act fast). The example in (13b) in particular employs the P2 tense morpheme which does not provoke the nasal on following verbs but we notice that the verbs *sleep*, *wake up*, *go out*, *walk* and *go* take the nasal prefix. This suggests that the nasal prefix is a property of verbs and not of the tense system. This nasal prefix actually marks the participle form of verbs (a special form of the verb used to form some tenses). The alternative analysis assumed in this article therefore treats the nasal consonant on verbs occurring after the P1 and P3 tense morphemes as the participle marker and not a consonant linked to the tense marker. It is thus a property of the language that when two or more verbs occur in the same construction, one after the other, the first verb functions as an auxiliary while the second (and subsequent verbs) occur in the participle form.

The proposal that the nasal consonant is a feature of verbs implies that the P1 and P3 markers which provoke the occurrence of the nasal consonant on following verbs are actually verbs, or at least, auxiliary verbs or verb derivatives. In fact, there is evidence that the P1 and P3 markers are derived from verbs. For some native speakers, in place of the P1 tense marker **l**, a full verb **yr_{ɔ̃} / yl_{ɔ̃}** “to do, to make” is used to mark events that took place earlier on the same day.

- (14) **à yl_{ɔ̃} -t' -kx_{ɔ̃} mm -t_{ɔ̃}**
 He P1 N-fetch 1-water inside 7-calabash
 ‘He fetched water in a calabash.’

In this example, **yr_{ɔ̃} / yl_{ɔ̃}** clearly functions as an auxiliary verb. The language also has a verb **l** “stay, spend the night” which in a variety of languages (e.g. Ghomala', Pinyin, Awing, Akum (Tamanji 2013)) have been known to evolve into tense markers. So one could make the plausible claim that the P1 and P3 tense markers - **l** and **l**- derive respectively from the verbs **yr_{ɔ̃}/yl_{ɔ̃}** “to do, to make” and **l** “stay/spend the night”. In the case of the P1 marker, historically, there is first a truncation of the first syllable **yl** leaving just **r_{ɔ̃}** which alternates with **l_{ɔ̃}**. Then speakers of the dialect that use the form **yr_{ɔ̃}** first have to change their **r** to **l**. Subsequently, the **ɔ̃** changes to **ɔ̃**; a very common process in Bafut phonology.

This derivation of tense morphemes from verbs receives a straightforward account within the theory of grammaticalisation (Heine and Reh 1984). In brief, the verbal elements undergo desemanticisation and subsequent analogy turning them first into auxiliary verbs and subsequently tense markers. At an earlier stage in the evolution of the language, the structure of the verb group was therefore **Aux -Verb** where **Aux** marked tense. However, despite the permutation, some of their properties as auxiliary verbs are maintained such that they continue to require the following verb to occur in the participle form (marked by the nasal prefix).

This accounts for the data in (9a) and (9c) in which the nasal occurs on the following verb when the P1 and P3 tense markers are used. In addition we achieve symmetry in the structure of the tense markers: all tense markers in the language have an open syllable structure. Three problems however remain to be addressed: (i) why does the P2 tense marker **k** behave differently from the other past tense morphemes in terms of

provoking a nasal prefix on following verbs? (ii) how does the proposed analysis account for the data in (10) – (11) where the intervention of a mood marker and a negative morpheme prevent the occurrence of the nasal? (iii) why does the nasal consonant not regularly surface on following verbs when future tense markers, are used? These issues are addressed in 2.2.1- 3.

2.2.1 Exceptional behaviour of P2 tense morpheme

We have observed that the P2 tense morpheme - **k-** unlike the P1 and P3 morphemes, does not provoke the occurrence of a nasal consonant on following verbs. Consider the examples in (9) which are repeated here as (15).

- (15) a. à l -t' -kx_ɔ mm -t_ɔ
 He P1 N-fetch 1-water inside 7-calabash
 ‘He fetched water in a calabash.’
- b. à k t' -kx_ɔ mm -t_ɔ
 He P2 fetch 1-water inside 7-calabash
 ‘He fetched water in a calabash.’
- c. à l -t' -kx_ɔ mm -t_ɔ
 He P3 N-fetch 1-water inside 7-calabash
 He fetched water in a calabash.’

In these examples, while the nasal prefix appears on the following verb when P1 and P3 are used, it does not appear when P2 is used. Given the general tendency observed so far which suggests that Bafut tense morphemes are derived from verbs, and considering our proposal that verbal elements provoke a nasal consonant on following verbs, it is rather a surprise to notice that P2 does not provoke the occurrence of this nasal consonant. Two explanations are available. First, one can assume that the regular P2 tense morpheme is not derived from a verb and so does not require following verbs to occur in the infinitive form. Notice in passing that while the other tense markers begin with a +continuant sound (l and j), the P2 marker is the only one that begins with a stop. I will return to the significance of this comment in sub-section 2.2.3.

The second explanation supposes that regular P2 is also derived from a verb like regular P1 and P3. However, the grammaticalisation process involved in the derivation of P2 is already so advanced that P2, unlike all the others, has lost all its verbal properties. While P1 and P3 are still at an earlier stage where their verbal properties are still functional such that they continue to require following verbs in the participle form, the P2 tense morpheme has gone past this stage and has thus lost all its verbal properties.

2.2.2 Why mood and negation prevent the occurrence of the nasal consonant

We observed earlier on in the data in (10) – (11) repeated here for convenience as (16) and (17), that whenever an element, such as the conditional morpheme or the negation marker, intervenes between the P1 and P3 tense morpheme and the verb, the nasal prefix does not surface on the following verb.

- (16) a. **l** **b** **ʒ** **bɲ** **s** **kw**
 he P1 Cond come then we die
 ‘If he had come, we would have been in trouble.’
- b. **l** **b** **ʒ** **bɲ** **s** **kw**
 he P3 Cond come then we die
 If he had come, we would have been in trouble.

- (17) a. **k** **à** **l** **w.**' **f-bw** **á** **-b** **t** **k.ŋ**₇
 Neg he P1 Neg 19-fish Prep 10-hands father fry
 'He did not fry fish for father..'
- b. **k** **f** **w** **à** **l** **w.**' **dàà** **ml**₂'₂ **ts'** **j**₂ **n**
 Neg chief the SM P3 Neg calabash palm wine only him drink
 The chief did not drink a calabash of palm wine alone.

Considering the proposed analysis in this paper which says that the P1 and P3 tense markers provoke the occurrence of the nasal prefix on following verbs because they are historically verb forms, we need to explain why they fail to provoke the nasal prefix on the verbs in these examples. Studies on the evolution of grammatical elements in Bantu languages (Bybee, Perkins and Pagliuca 1994 and Heine, Claudi and Hünnemeyer 1991, Batibo 2005) have indicated that many mood markers are not derived from verbs. Presumably, this is the case in Bafut and to this group of elements, I propose that we add the negative marker as another verb phrase internal element that is not derived from verbs in Bafut. In the examples in (16 – 17), the tense markers are followed by the conditional marker or the negation marker which are not verbal elements. We do not therefore expect the nasal prefix on them. Since they are not verbal elements, they cannot therefore also require the nasal prefix on the following verb.

2.2.3 Future tense markers and the nasal consonant

The nasal consonant generally does not surface on following verb forms when the future tense markers are used. This is illustrated in the examples below. In these and subsequent examples, SM means subject marker. This is an element that is supposed to mark agreement between the subject and the verb.

- (18) a. **n** **dʒ.** **tsm** **dʒ** **k.** **k'** **y** **á** **b**₂**r**
 animals the all SM F0 climb go Prep heaven
 'All the animals will go (up) to heaven.'
- b. **ø-kwm.ŋk'** **à** **k.** **l** **kx** **tʃ** **-gj**
 1-Tortoise SM F0 F1 run surpass 1-deer
 'Tortoise will run faster than Deer (today).'
- c. **àmb** **à** **k.** **l** **ʒ** **j** **ø-m-ndz**₂ **kwr**₇
 Ambe SM F0 F2 come buy 1-chld- eat
 peanuts
 'Ambe will come (tomorrow), buy peanuts and eat..'
- d. **àmb** **à** **k.** **j** **ʒ** **j** **ø-mndz**₂ **kwr**₇
 Ambe SM F0 F3 come buy 1-peanuts eat
 'Ambe shall come, buy peanuts and eat.'

This is rather unexpected in our analysis since there is concrete evidence which points to the fact that F1 **l**, F2 **l**, and F3 **j** are derived from verbs (see Tamanji 2011). The today future marker is derived from the verb **yr/yl**. The tomorrow future tense marker **l** is derived from the verb **l** ‘to leave, to go away’. The F3 future marker is derived from the verb **ʒ** which some speakers pronounce as **j**. This verb has the meaning ‘come’. If these future tense markers are also derived from verbs, then we at least expect them to provoke a nasal prefix on verbs following my proposal that the nasal is a property of verbs. We therefore need to explain why the nasal prefix does not feature on the verbs in these examples.

From various kinds of circumstantial evidence, the presence of the general future tense marker **ká** appears to bleed the specific tense markers of their ability to require following verbs to occur in the participle form. For instance, in constructions where it is possible to omit the **ká**, the specific future tense markers provoke the occurrence of the nasal prefix. Consider the examples below in which, because of the use of the subjunctive marker **ta** and the future potential marker **mb**, it is possible to leave out the general future marker.

- (19) a. **t.** **b** **l** **-y**
 SUB them F1 N-go today
 ‘Let them go (later) today.’
- b. **mb** **m.** **l** **-b** **j**
 SUB I F2 N-build tomorrow
 ‘I can build it tomorrow.’

When the general future marker **ká** is absent, the tense markers provoke the nasal prefix on the verb. One will not be far from the point then to propose that the future tense markers are derived from verbs and so have the ability to provoke the nasal prefix but the presence of the general future marker bleeds the tense markers of this ability. The question of this special property of **ká** which is responsible for this bleeding effect then arises. I propose that the general future marker **ká**, like the P2 marker **k** do not derive from verbs. Cross-linguistic considerations (cf Venda and Setswana in Batibo (2005), Ghomala’ in Moguo (2011) and Ngomba, Nwe, Yemba, Ngemba in Ndongmo (2013)) strongly suggest that Bafut **k.**, like Setswana **ka**, evolved from the Proto-Bantu conditional/potential marker ***nga** ‘if’. The fact that both the future **k.** and the P2 **k** both begin with the stop [k], unlike all the other tense markers which begin with a [+Cont] ([l, j, ʒ]) push me further to claim that both have a non-verbal origin. While future **k.** derived from Proto-Bantu ***nga**, P2 **k** (or even both future **k.** and P2 **k**) might have derived from the adverbial element **k.k**, which marks uncertainty, doubt, intent in Bafut.

The picture which I have painted so far is the following: Rather than consider the nasal consonant as the coda consonant of the P1 and P3 tense morphemes as in Mfonyam’s analysis, it is more expedient to analyse it as a feature of verbal elements. With this analysis, if we further accept the view that Bafut tense markers are actually auxiliary verbs or, at least, derived from verbs, we can account for Mfonyam’s data and go beyond to account for data which previous analyses could not account for. As auxiliary verbs, the tense morphemes always require following verbs to occur in the participle form

which is marked by the nasal prefix. In addition to resolving problems inherent in previous analyses, my proposal also has the advantage of opening up the way to proposing a unique function for the nasal prefix in verbal expressions. We turn to this in the next section.

3. EXTENDING THE ANALYSIS

I have demonstrated that in the tense system, it is more appropriate to treat the nasal consonant as a property of verbal elements than of the P1 and P2 tense markers. In the present section, I show that this proposal extends very easily over to other constructions in the language. An advantage of this is that we have a unique function for the nasal consonant in all verbal constructions including coreference, syntactic repetition and consecutivisation.

3.1. COREFERENCE AND LOGOPHORIC PRONOUNS

In the logophoric pronoun² system in Bafut, coreference in temporary subordinative sentences is marked by an oblique pronoun in subject position of the subordinate clause. This pronoun is coreferential with the subject of the main clause. The following examples illustrate the use of coreference.

- (20) a. **kwm.ŋk'** **à** **l** **- wŋ** **m** **j** **k.** **lg** **-s** **w.**
 Tortoise_i SM P3 N-say that he_i F0 till farm the
 'Tortoise said that he will cultivate the land.'
- b. **bsŋ** **bj.** **b** **tg** **-k'.** **m** **b** **k.** **ʒwt** **kwm.ŋk'**
 Birds_i the SM then N-plan that they_i F0 kill tortoise
 'The birds then planned to kill tortoise.'

In these examples, the pronouns **j** and **b** in the subordinate clauses refer back to the subjects of the main clauses "tortoise" and "the birds" respectively. In these examples of temporary subordinative sentences therefore, the subjects of the main clause and the subordinate clause are coreferential.

In consecutive clauses on the other hand, coreference marking is not very easy to sort out. Consider the following examples in which the subject of the initial clause is identical to that of the consequent clause.

- (21) a. **kwm.ŋk'** **á** **tg** **-m'.** **m.t.** **w-** **-l. nt,**
 tortoise SM then N-set 1-trap 1-the N-hide
 'Tortoise then set the trap and (then) hid himself.'
- b. **ŋ** **bjd** **á** **j** **js** **-kwt** **j**
 person Jew SM see Jesus N-help him
 'A Jew saw Jesus and helped him.'

² The expression "logophoric pronoun" is used here to refer to devices (proforms) which indicate that in conjoined clauses, the subject of the following clause is identical with or different from the subject of the preceding clause. Following Wiesemann (1982a,b) I use *coreference* in the situation where the subjects are identical and *switch reference* in situations where the subjects are not the same.

There is no pronominal element in the subsequent clause which refers back to the subject of the initial clause. Rather, according to Mfonyam (1989:158), coreference in this case is marked by the nasal consonant which shows up on the following verb. Treating the nasal consonant in such instances as the logophoric pronoun marking coreference leaves much to be desired. Notice that when the consecutive construction is in the future tense, the nasal consonant no longer appears.

- (22) a. **kwm.ŋk'** **á** **kál** **m'** **m.t.** **w-** **l.♦.nt,**
 Tortoise SM F2 set 1-trap 1-the hide
 'Tortoise will set the trap and (then) hide himself.'
- b. **ŋ** **bjd** **á** **ká j** **j** **js** **kw** **j**
 person Jew SM F0 F3 see Jesus help him
 'A Jew will see Jesus and help him.'

If the nasal consonant functions to mark subject coreference, there is really no reason why it should not surface in these examples in (22). Rather, the facts we see are reminiscent of what we have seen in the preceding section regarding tense marking: the nasal prefix has failed to surface in exactly this context where the general future marker **ká** has been used. Compare these examples to those in (18) where, as we proposed, the presence of the general future marker bleeds the tense morpheme of its ability to provoke a nasal prefix on the following verb. Now consider the example (22c) below where the general future marker has been omitted.

- (22) c. **mb kwm.ŋk'** **á** **l** **-m'** **m.t.** **w-** **-l.♦.nt,**
 Cond. Tortoise SM F2 N-set 1-trap 1-the N-hide
 'It is possible that Tortoise will set the trap and (then) hide himself.'

Just like the examples in (19) above, once the general future tense morpheme is omitted, the following verb bears the nasal consonant. This suggests that we are dealing here with the same phenomenon as in the tense system, namely that the nasal on the subsequent verbs is as a result of the presence of a verbal element preceding the verb.

To account for the examples in (22), alongside those in (21), I rather suggest that coreference on consecutive clauses is marked by a zero pronominal element as illustrated below.

- (23) a. **kwm.ŋk'** **á** **tg** **-m'** **m.t.** **w-** **ø** **-l.♦.nt,**
 tortoise SM then N-set 1-trap 1-the Pron N-hide
 'Tortoise then set the trap and (then) hid himself.'
- b. **ŋ** **bjd** **á** **j** **js** **ø** **-kw** **j**
 person Jew SM see Jesus Pron N-help him
 'A Jew saw Jesus and helped him.'

The nasal consonant which surfaces on the verbs in the consequent/subordinative clauses is the same nasal consonant which we have seen so far surfacing on following verbs when a verbal element precedes. This nasal does not surface in the examples in (22a) and (22b)

for the same reasons that it failed to surface in (18): that is, that the presence of the general future marker **ká** bleeds the specific future tense markers (which are derived from verbs) of their ability to provoke a following nasal consonant. If this line of reasoning is correct, then we do not need to assign a new function to the nasal consonant in consecutive clauses. It is the same nasal prefix which marks the participle form of verbs.

3.2. SYNTACTIC REPETITION

Syntactic repetition affects various word categories in Bafut resulting in different shades of meaning including intensity, duration, relative distance, dominance, multiple values and temporal regularity. When reduplication affects verbs and adjectives, it is usual for a nasal consonant to be inserted between the reduplicative morpheme and the base. Verb repetition is illustrated in (24) below while (25) illustrates adjective repetition. The use of these repeated forms is illustrated in the sentences that follow in (26).

- (24) a. **ʃʃ'-ʃʃ'** wash thoroughly/for long < **ʃʃ'** wash
 b. **bwbw_ɔ** sleep for long < **bw_ɔ** sleep
 c. **f.f.** give over and again/to many < **f** give
- (25) a. **f'f'ɿ** very white < **f'** white
 b. **sg-sg** very clean < **sg** clean
 c. **k...rk...r** very twisted < **k...r** twisted
- (26) a. **Amb** **k** **bw_ɔ** **-bw_ɔ**
 Ambe SM P2 sleep N-sleep
 'Ambe slept for a very long time'.
- b. **Amb** **k** **sg** **-sg**
 Ambe SM P2 clean N-clean
 'Ambe looked very neat/clean'.

A typical phonological study will analyze the data above as a kind of reduplication involving partial reduplication or a case of copying the base onto a template that contains an empty slot and that the nasal consonant is inserted to fill this empty slot just like we insert a default vowel to fill a slot that normally requires a vowel sound. Leaving aside the question of whether these forms are cases of reduplication or of syntactic repetition and whether they involve partial copying, nasal epenthesis or deletion, one question stands out to be answered: what is the source of the nasal consonant in the repeated forms?

The answer to this question is obvious if we assume the approach I have adopted in this study that verbal elements require a following verb to occur in the participle form. In this light, the case of the verbs in example (24) is clear. The examples in (25) are adjectives and as we mentioned earlier, the majority of adjectives in Bafut are derived from verbs. In these examples of syntactic repetition therefore, we are dealing with pure verbs (24) and verbal derivatives (25). Because these elements are verbal, they require following verbs to occur in the participle form marked by the nasal prefix.

It is interesting to note that in the future tenses, the nasal prefix does not feature in the repeated forms.

- (28) a. **Amb k. bwɔ bwɔ**
 Ambe SM F0 sleep sleep
 ‘Ambe will sleep for a very long time’.
- b. **Amb k. sg sg**
 Ambe SM F0 clean clean
 ‘Ambe will look very neat/clean’.

This confirms the view expressed earlier on that the general future marker bleeds following verbal elements of the ability to require the participle form of following verbs.

3.3 CONSECUTIVE CONSTRUCTIONS

The consecutive construction is a sub-category of serial verb constructions in which two or more verbs denoting independent actions, states or events occur one after the other (cf Mfonyam 1989 and Tamanji 2009 for a more detailed discussion of serial verb constructions in Bafut). The verbs therefore have a temporal relation in the sense that the event in the subsequent verb occurs after that in the preceding. The second verb bears a nasal prefix in past tenses. Consider the example in (28).

- (28) **àmb à k ʒ -j mb**
 Ambe SM P2 come N-buy meat
 ‘Ambe came and bought meat.’

According to Mfonyam (1989: 277) the nasal consonant on the second verb in consecutive constructions like (28) is a marker of consecutivisation. He further adds that in the consecutive construction, the same nasal consonant “... also serves a pronominal function, i.e. in the consecutive construction, it serves to indicate that the agent or referent in the following clause is the same as in the preceding clause”.

The view that the marker of consecutivisation in (28) also serves a pronominal function is rather inadequate especially as Mfonyam observes that “the consecutive marker and the personal pronoun are mutually exclusive”. It is hard therefore to say whether the nasal consonant marks consecutivisation or same subject reference.

In addition to this problem, note that the nasal consonant does not surface when these same constructions are in the future tense.

- (29) a. **n dʒ. tsm dʒ k. k' y á bɔr**
 animals the all SM F0 climb Go Prep heaven
 ‘All the animals will go (up) to heaven.’
- b. **ø-kwm.ɲk' à k. kx tʃ -gj**
 1-Tortoise SM F0 run surpass 1-deer
 ‘Tortoise will run faster than Deer.’
- c. **àmb à k. ʒ j mb**

Ambe SM F0 come buy meat
 ‘Ambe will come and buy meat.’

If the nasal consonant is a marker of consecutivisation or a personal pronoun, there is really no explanation why it should not feature in these examples. If we adopt the analysis assumed in this paper, that is that the nasal consonant is a feature of verbs and that it surfaces anytime that two or more verbs occur in the same construction, then the facts of these examples fall neatly into place. The nasal consonant in the consecutive construction does not mark same subject reference and so we do not need to explain why the subject reference does not feature in some contexts. Finally, we account for the absence of the nasal consonant in the examples in (29) the same way we did in previous examples in tense marking: the nasal consonant does not feature because of the presence of the general future marker **k**.

To summarize the discussion in this section, I have demonstrated that contrary to Mfonyam’s views, the nasal consonant is not a logophoric pronoun marking switch reference in consecutive clauses. Rather, its occurrence in these structures is motivated by the presence of two or more verbs in the same construction. The nasal consonant also surfaces in instances of syntactic repetition because the reduplicated elements are either pure verbs or adjectives that have been derived from verbs. The role of the nasal consonant in consecutive structures is also quite obvious since these structures contain two or more verbs occurring one after the other. Putting these facts alongside the discussion in section 2 concerning the relation between the nasal prefix and tense markers, the overall principal observation is that in verbal constructions, the nasal consonant has a unique function which is to mark the participle form of verbs.

4. CONCLUSION

This article set out to examine the grammatical role of the nasal consonant which surfaces in the noun class system, noun derivation, tense marking, consecutive structures, switch reference, and syntactic repetition. Beginning with the most controversial case in tense marking, the paper demonstrated that it is more expedient to treat the nasal consonant as an inherent property of verbs which requires following verbs to occur in the infinitive form rather than treating it as part of the tense system as in Mfonyam (1989). Tense markers in Bafut, with the exception of P2 and the general future marker (F0), are derived from verbs. In the Verb group in Bafut therefore tense markers function as auxiliaries in a structure **Aux – Verb**. In this structure, the auxiliary verb requires the main verb to occur in the participle form marked by a nasal prefix. The P2 and F0 markers, on the other hand, do not derive from verbs. Rather, they derive from modal elements including Proto-Bantu ***nga** and Bafut **k.k**, which mark potentiality, uncertainty, doubt, and intent. Because of this non-verbal status, P2 and F0 cannot provoke a nasal prefix on the following verb. The ability to provoke a nasal prefix on a following verb is however denied all tense morphemes when they do not meet adjacency requirements. Adopting this analysis allowed me to account for the data in Mfonyam’s work as well as data that were not included in his study. I was also able to extend the analysis to account for instances of the nasal prefix in other structures such as switch reference, consecutive clauses, and

syntactic repetition. Overall, this analysis simplifies the grammar of Bafut significantly as it recognizes just two grammatical functions of the nasal prefix: in nominal constructions, the nasal consonant serves to classify nouns as either belonging to specific morphological classes or as derived from verbs. In verbal constructions on the other hand, the nasal prefix is the nominalization morpheme which marks the infinitive form of verbs.

ABBREVIATIONS

CL	Class	PL	Plural
Cond.	Conditional	P1	Today past tense
CV	Consonant-vowel sequence	P2	Yesterday past tense
F0	General future marker	P3	Remote past tense
F1	Today future tense	Prep	Preposition
F2	Tomorrow future tense	Pron	Pronoun
F3	Remote future tense	SG	Singular
N	Homorganic nasal consonant/Syllabic nasal	SM	Subject marker
Neg	Negation	SUB	Subject
		V	Verb

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