

2010

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Ciara Browne

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### Recommended Citation

Browne, Ciara (2010) "The Noun Phrase in Bamunka: Towards a Complexity Analysis," *The ITB Journal*:

Vol. 11: Iss. 2, Article 4.

doi:10.21427/D7VF1T

Available at: <https://arrow.tudublin.ie/itbj/vol11/iss2/4>

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## **The Noun Phrase in Bamunka: Towards a Complexity Analysis.**

**Ciara Browne**  
**Trinity College Dublin**

### **Abstract**

*A member of the the Grassfields Bantu family, the Bamunka language of Western Cameroon is spoken by approximately 31, 000 speakers. Having begun the process of transcribing the lanaguge into written form just six years ago the principles and intricacies of its grammatical system are becoming evident. This paper will look in particular at the noun phrase in Bamunka and draw some conclusions as to the distribution of complexity found therein.*

### **1. Introduction**

One common assumption in linguistics is that all human languages are equally complex and that when taken as a whole, no language can be called “simpler” than another (Edwards, 1994). It has been proposed that “all languages have a complex grammar: there may be relative simplicity in one respect (e.g. no word endings), but there seems always to be relative complexity in another (e.g. word-position)” (Crystal, 1987:6-7) From this point of view, it is generally supposed that these differences must “even out” as one considers entire linguistic systems (ibid). This equal complexity hypothesis has come under scrutiny in recent times however, notably in McWhorter’s (2001) claim that “creole grammars are the world’s simplest grammars,” McWhorter argues that while one language may be more complex than another in terms of a particular area of grammar there is no a priori reason to assume that all languages ultimately “tally” in terms of areas of typologically unusual complexity (McWhorter, 2005:40). He examined these under the headings such as syntax, grammaticalised expression and inflectional morphology (McWhorter, 2005).

We will examine the layered structure of the Bamunka noun phrase in light of a number of these aspects of linguistic complexity. The language data was collected during a field trip to the Bamunka village in the Ndop plain of Cameroon. Two native speakers acted as language informants providing a diverse range of material suitable to the relevant grammatical categories. This preliminary study<sup>1</sup> at the focused level of the noun phrase may prove a starting point for more in depth future research in the field of Bantu languages and complexity.

## **2. Bamunka and the Bantu Languages**

### **2.1 The Bamunka language**

The Bamunka language is one of 279 indigenous languages of Cameroon. Cameroon is situated in West Africa, it has a population of approximately 18 million people and its official languages are French and English. It is the second most linguistically diverse country in Africa, the first being Nigeria with approximately 450 languages. The Bamunka language is spoken in the village of Bamunka and is one thirteen languages spoken in the Ndop Plain. The Bamunka villages, one of the thirteen villages in Ndop, has a population of 200, 000 people.

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<sup>1</sup>I am indebted to Jon Blackwell of SIL for his contribution to the research, in particular for our joint work on the Adjective in Bamunka.



**Figure 2.1: Map of Africa/Cameroon**

The Ndop Plain, in the North West Province of Cameroon, is at an altitude of 1150 metres, surrounded by mountains which in the North rise to 1700 metres. It is approximately 30 km square and has a number of lakes. The plain has about 200, 000 inhabitants and the village of Bamunka comprising just over 30, 000 of these.



**Figure 2.2: Cameroon [The Ndop plain is found in the northwest in proximity to Bamenda]**

Bamunka is a part of the Niger-Congo family of the Grassfields Bantu languages. It is a minority language which is mutually understood in the various quarters in which it is spoken. It is estimated to have 31,000 speakers (Ethnologue, 2008). Bamunka remains the mother tongue in the areas which it is spoken. As families move towards the town of Ndop, however, a number of the children do not learn Bamunka as their first language (Sorsamo, 2008).

The Bamunka orthography was developed between the years 2004 and 2006. Over a period of six years a growing lexicon of words and an increasingly refined noun class system has been developed. While there is on-going work on the language, a completed grammar sketch has yet to be conducted.

The word order in Bamunka is generally SVO. As noted by Sorsamo (2008:3) morphological processes of verbs include tense and aspect marking by using auxiliary verbs and grammatical tone. In addition to past, present and future tense divisions, these may be further subdivided. For instance, six past tenses have been identified ranging from the simple past tense (ST), to the progressive past tense (PP), to the far past (P4) (actions/events that have occurred at some point in the distant past). New verbs in this language may be derived from verb roots by using various suffixes (Sorsamo:2008). Bamunka nouns are organised using a class system based on Bantu noun classification. These are expressed using different affixes which are attached to nouns and noun phrases.

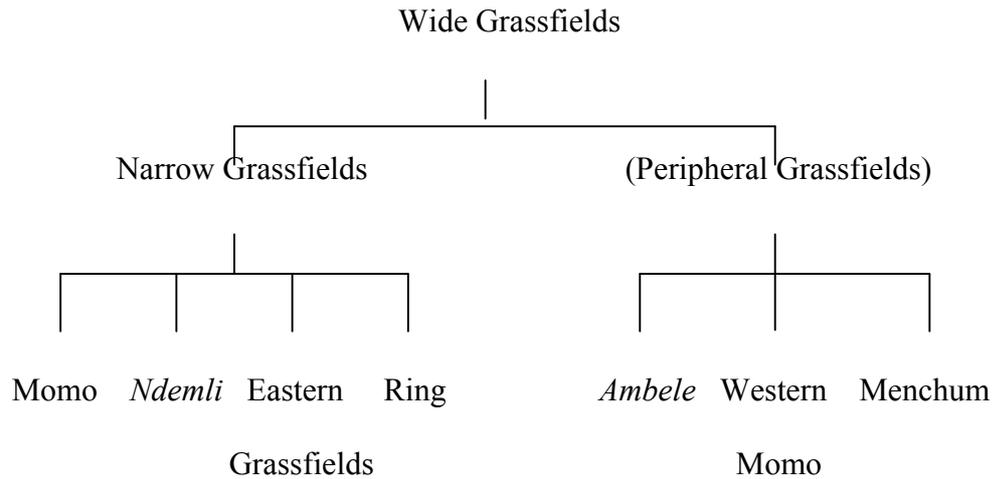
## **2.3 The Bantu language family**

### **2.3.1 The Bantu language group**

The Bantu language group covers the area from Southern Cameroon to almost the whole of Southern Africa, including then Eastern and Central Africa. This is a family of hundreds of languages whose number of speakers is close to 240 million. Nearly one third of all Africans speak a Bantu language as their native language (Nurse, 2001). The majority of Bantu languages are tonal and many have complex tonal phonologies (Nurse and Philippson, 2003).

### **2.3.2 Grassfields Bantu**

Grassfields Bantu (GB) is a cluster of over fifty languages spoken in the West and North-western Provinces of Cameroon (Watters, 2000). In terms of the external classification of the GB languages findings suggest that there is no clear boundary between traditional Bantu and GB Bantu (Henrici, 1973). It is commonly accepted however that, alongside a number of language clusters in the Cameroon-Nigeria region, GB languages are the nearest cousins of Guthrie's Bantu (Watters, 2000). The internal unity of GB is largely accepted with Stallcup (1980a:54) suggesting a 60% lexical similarity, while Piron (1995:16) claims a 41% similarity. Watters and Leroy (1989) proposed a graded division of these languages as illustrated by the following diagram. This was later supported by Piron (1995).



**Figure 2.1: Piron's internal classification of Wide Grassfields (branch average method) (Individual languages in italics.) From Watters, 2000:5.**

With regard to vowels, Elias et al (1984:41) identified seven vowels which are the most likely proto-system for Grassfields Bantu overall. Watters (2000) outlines commonalities in the system as follows. Long vowels and diphthongs are common in GB. In terms of consonants, stops usually involve the opposition between the voiceless set / p t k / and the voiced set / b d g /. Fricatives include / f s / with some varieties also using / v z γ /. Semi-vowels (glides) are almost universal. The nasal set can include / m n ɲ ɳ /. The palatal nasal /ɲ/ occurs less frequently and its phonological status is often unclear. The above consonants all occur in the initial consonant position of the syllable. In contrast, the final consonant position of syllables, and stems, limits the consonants. Rather than fifteen to twenty-five consonants, only one to eight occur in the final position (ibid:20).

Grassfields Bantu languages exhibit highly complex tone systems. They have generally been divided into a tone system of two tone levels, High (H) and Low (L) (Greenberg 1948 and Meeussen 1967:84). Verbs are divided into two classes: those with High tone and those with Low tone while nouns have been divided into four classes, all with Low tone prefixes: L-LL, L-LH, L-HL, L-HH (Watters, 2000).

### 2.3.3 The noun class system

One distinct feature of the GB languages is its complex method of classifying nouns. Noun classes are used across the Bantu languages to categorise their nouns and allow for a clear organisation of people, things and concepts. Whereas the original Bantu class system was based on commonalities in meaning, today classes are distinguished along the lines of grammatical categorisation (SIL Cameroon, 2005). Such criteria encompass the form of a noun and its agreeing elements.

A common 'pattern of agreement' across Bantu classes would include a group of nouns with a common affix along with common modifiers. Most nouns can occur with both a singular and a plural affix. Singular and plural noun classes of the same noun root may be grouped into a pair known as 'gender pairing'. Gender in the case of noun classes refers to grammatical rather than biological gender (SIL Cameroon, 2005). Bantu noun class

numbering systems have been designed to enable linguists to make general observations as to the degree to which the noun system of Bantu are similar (ibid). The following outline lists the types of nouns which are usually found within particular Bantu genders. However other types are possible and, as has been noted, nouns should not be classified in this way on the basis of meaning.

Classes	Common Types of Nouns
1/2	Names of persons
3/4	Trees
5/6	(Paired) body parts
6a	Liquids, noncountable goods
7/8	Tools, plants and things made
9/10	Animals, kinship terms
14	Abstract notions
15	Actions (verb infinitive)
19	Small things

**Table 2.1: Bantu Noun Classes (SIL Cameroon, 2005)**

## 2.4 Summary

The Bamunka language, also commonly known as ‘Ngieməkɔ’kə’, is spoken in the village of Bamunka in NorthWest Cameroon. A member of the Bantu family, which stretch from Southern Cameroon to Southern Africa, it will provide the data for this study of language complexity within the parameters discussed. Next we will examine the Bamunka Noun Phrase in greater depth.

## 3. The Noun – Layered Structure of the NP

### 3.1 Introduction

A common feature of the Bantu languages is its class based noun system. Nouns are grouped together on the basis of common affixes and concord consonants. This is present in the Bamunka language. Common features include the attachment of class based affixes on root nouns in order to form possessives and demonstratives. Various other aspects of the noun including number and comparison will also be discussed.

### 3.2 Noun class system

Bamunka has a complex system of declension in that nouns decline depending on what noun class they fall into. The noun class system used is based on that of the Bantu noun class numbering system, discussed above. There are different classes for the plural as opposed to the singular but they are also grouped together into gender pairs. A preliminary outline of the Bamunka noun class system is as follows:

Class	Affix	Concord Consonant	Concord Tone
1	∅	Y	Falling
2	bə-	B	Level
5	∅	Y	Level
6a	-mə	M	Level
7	-kə	K	Level
8	-bə	B	Level
9	∅, n-	Y	Falling
10	-hə	H	Level
13	-tə	T	Level
19	-hə	H	Level

**Table 3.1: Bamunka Noun Class System**

Nouns may be further subdivided into singular and plural classes as in Table 3.2

Singular Classes	Plural Classes
1	2
5	6a
7	8
9	10
	13
19	

**Table 3.2: Singular and Plural Classes in Bamunka**

Gender pairings refer to the particular pairing of a singular noun class with a plural noun class. That is to say that nouns from a specific singular class ‘pair up’ with nouns from a specific plural class to form a gender (SIL Cameroon, 2007). Nouns that belong to the same singular class may pair with different plural classes. This is common across Bantu languages that genders are not referred to as ‘masculine’ or ‘feminine’ but rather are identified by the

numbers of the classes that are paired together. The gender pairings in Bamunka are as follows.

Gender pairings
1 / 2
5 / 2
9 / 2
7 / 8
9 / 10
19 / 6a

**Table 3:3 Gender Pairings in Bamunka**

As mentioned previously, while nouns which fall into the same category may have similar meanings, their allocation into a particular class should not be on this basis. The justification for choosing each of the above noun classes is based on criteria such as similar affixes and concord elements.

Having examined the aspects of the Bamunka noun class system we will now go on to look at the category of case.

### 3.3 Case

Case is a grammatical category determined by the syntactic or semantic function of a noun or pronoun (SIL.org:2010). The following is a preliminary look at the category of case in the Bamunka language.

#### Nominative

This case is straightforward in its expression with the use of a determiner followed by the appropriate noun.

- (1) Mbũ chu lɔŋ  
 The:det mouth:N fence:N  
 LIT: The mouth (of the) fence.  
 The gate

- (2) Mbũ wo  
 The:det man:N  
 The man

#### Genitive

The marking of the genitive case appears to be a matter of order. One noun follows the other with the context disambiguating as to whether the genitive case is being used or not.

- (3) Mbũ ŋkwe chu lɔŋ  
 The:det handle:N mouth:N fence:N  
 LIT: The handle (of the) mouth fence  
 The handle of the gate.

- (4) Mbũ tia mbũ wo  
 The:det head:N the:det man:N  
 The head of the man



- (5) Mbū            fuŋkə            tyəkə  
The:det        feather:N        tree:N  
The leaf (of the) tree
- (6) Mbū            kefuŋ                    kətyū  
The:det        feather:N            tree:N  
The leaf (of the) tree

It is notable to see there is noun reversal in example 6 above. This phenomenon will be discussed further under section 4.9 Adjectives.

### Dative

In order to indicate the noun to whom something is given, the most common method in Bamunka is to use the preposition tə.

- (7) Mə    kə                    shia-ə                    tə        Sam  
I        give:V:ST        hat:N-my:Poss        to        Sam:N  
I gave my hat to Sam
- (8) Mə    mə'                    mbū                    botə                    tə-əŋ  
I        throw:V:ST        the:det                ball                    to-him:Pr  
I threw the ball to him

### Accusative

- (9) ɔ                    kwəŋ                    Tom  
He                    hit:V:ST                Tom:N  
He hit Tom

### Ablative

- (10) Mə                tənə                    mbū                    chu                    ləŋ  
I                    stand:V:ST            near                    mouth:N                fence:N  
LIT:I                stood                    near                    mouth                    (of the) fence  
I stood (by) the gate
- (11) ɔ                    to'                    ghəŋ                    Joe  
He                    walk:V:ST            with                    Joe:N  
He walked with Joe
- (12) Mə                yu                    nə                    bəŋkə  
I                    eat:V:ST                with                    spoon:N  
I ate with (a) spoon

It is important to note that another word, nə, is used here for with. Possible reasons could include alternate usage for animate vs. inanimate nouns, though this has not been confirmed. The above observations of Case, as has been noted, are merely a preliminary look at this topic. The cases mentioned do appear to exist in the language. However it seems that in certain situations the context is used to disambiguate which case is being used as we see in the Genitive case above.

### 3.4 Number

The noun exists in both singular and plural form. Plurals may be formed by the attachment of an affix or in some cases an alternative word is used, as in (b), Table 3.4, below. Plural nouns must agree with the plural noun class into which they fall. For example, the plural of book (ɲwɔ'ɲə) in example (a) below takes the class 2 plural prefix bə. We see similar grammaticalisations in (c) and (d) below with the use of class based plural marker tə, mə and hə respectively. Example (b) illustrates a rarer case in which the plural takes a different form completely to the singular noun.

	<b>Singular</b>	<b>Plural</b>
(a)	ɲwɔ'ɲə book:N book	bəɲwɔ'ɲə PM:book:N books
(b)	wo man:N man	bʉə men:N men
(c)	fʉəŋ Leg:N leg	fʉəŋtə leg:PM:N legs
(d)	nuɔhə bird:N bird	nuɔmə bird:PM:N birds

**Table 3.4: Singular and Plural Bamunka Noun**

#### 3.4.1 Numerals

Both cardinal and ordinal numbers are utilized in the Bamunka language. They are not based upon the noun class system and can both precede and follow the noun in question.

##### 3.4.1.1 Cardinal Numbers

Numbers appear to both precede and follow the noun. The numbering system does not appear to be based on class, nor does there appear to be a human/non-human distinction in this system.

#### Class 1

- (13) Wo            mɔ'    nɔ    bɛ    səfia  
 Person:N    one    is    be:V    road:N  
 One man is on the road

#### Class 2

- (14) Bətambʉətə    nɔ    bɛ    mu    yu    mbuuə    itia.  
 Doves:N    is    be:V    in    sky    number    three  
 There are three doves in the sky

- (15) Mɔ nɔ kie belɪŋ itia bɛ bəke  
 I is have:V sibling:N three be women  
 I have three sisters

One must specify the gender in example (15) here as the same root word is used for brother/sister.

**Class 3**

- (16) Mbɔ njaa nɔ kie chyusiitə itaa  
 The:Det house:N is have doors:N five  
 The house has five doors

**Class 19**

- (17) Buu bʉə nɔ bɛ mutə  
 Two people:N is be:V field  
 Two people are in the field

**3.4.1.2 Ordinal Numbers**

Ordinal numbers exist from first to third. After that, the sentence is structured so that the number that has gone before are used to indicate the person/objects etc numeric position in the context given. Again ordinal numbers can both precede or follow the noun, the reasons for one position or the other is not clear and it may just depend on dialect or personal preference.

- (18) Mbɔ fəŋ kəchi skul nɔ bɛ Mbikʉə  
 The:Det first day school:N is be Mbikʉə  
 The first day of school is Mbikʉə.

In the above example, due to the presence of an eight day week in the village of Bamunka, the day of the week mentioned cannot be directly translated.

- (19) Mary nɔ' kə bɛ biitə wokə  
 Mary:N P5 be second person:N  
 ndɔmə gɛ  
 who/that leave  
 Mary was the second person to leave

Alternatively, one could say:

- (20) Biitə wokə nɔ' kə bɛ Mary ndɔ mə  
 Second person:N P5 be Mary RC1 one  
 gɛ  
 leave  
 Mary was the second person to leave

- (21) Mɔ nɔ' kə bɛ gwe bəŋ bʉə tia ndɔ  
 I P5 be come behind people three RC1  
 mə yu  
 one eat  
 I was the fourth person to eat

### 3.5 Comparison

The positive, comparative and superlative exist in Bamunka. They do not exist in all words however, such as, loud/louder/loudest or fast/faster/fastest. The latter cases are generally disambiguated by the given context of the conversation. Some commonly found examples are illustrated in table 4.5 below

(a.)	gʉə	kwa gʉə	kɛŋ gʉə
	big	Com:big	Sup:big
	big	bigger	biggest
(b.)	tʉə'	kwa tʉə'	kɛŋ tʉə'
	small	Com:small	Sup:small
	small	smaller	smallest
(c.)	die	kwa die	kɛŋ die
	heavy	Com:heavy	Sup:heavy
	heavy	heavier	heaviest

**Table 3.5 Positive, comparative and superlative in Bamunka**

### 3.6 Articles

The definite and indefinite article are present in Bamunka. These have no relation to class and are the same in all noun classes. The use of mbʉ for definite article is optional and will be understood as such even if left out. As we will see in section 4.9, Adjectives, there is an inversion of the noun with the use of the definite article in some situations and classes.

	<b>Indefinite</b>	<b>Definite</b>	<b>Generic</b>
(a)	mbu bi	mbʉ bi	bi
	a:Indef goat a goat	the:Def goat The goat	goat goat
(b)	mbu ŋwɔ'nə	mbʉ ŋwɔ'nə	ŋwɔ'nə
	a:Indef book a book	the:Def book the book	book book
(c)	mbu wo	mbʉ wo	wo
	a:Indef man a man	the:Def man the Def	man man
(d)	mbu fʉəŋ	mbʉ fʉəŋ	fʉəŋ
	a:Indef leg a leg	the leg the leg	leg leg

**Table 4.6: The definite and indefinite articles.**

### 3.7 Demonstratives

Demonstratives, this, these, that and those, are expressed in Bamunka using various suffixes attached to the noun. These affixes are determined by the class grouping of the noun in question. The Class 1 noun  $\eta\omega\acute{\omega}'n\acute{\omega}$  (book), for example, will take the Class 1 demonstrative suffix  $\text{ɔ}\eta$ , resulting in  $\eta\omega\acute{\omega}'n\acute{\omega}\text{-}\text{ɔ}\eta$  meaning this book. This and further class based examples are illustrated below.

**Class 1** suffixes:  $\text{ɔ}$ ,  $\text{ɔ}\eta$  (this or these)  $\epsilon$ ,  $e$ ,  $i\eta$ ,  $\epsilon\eta$  (that or those). These are attached to the appropriate root noun found in class 1.

(22)  $L\epsilon n\acute{\omega}$              $\eta\omega\acute{\omega}'n\acute{\omega}\text{-}\text{ɔ}\eta$   
 Look        book:N-this:D  
 Look at this book

(23)  $L\epsilon\eta\acute{\omega}$              $\eta\omega\acute{\omega}'n\acute{\omega}\text{-}i$   
 Look            book:N-that:D  
 Look at that book

**Class 2** suffixes:  $b\acute{\omega}\eta$ ,  $b\eta$

As with class 1 above, class 2 demonstrative suffixes attach to the root noun in question to form the appropriate demonstrative.

**Class 3** suffixes:  $\text{ɔ}$ ,  $\text{ɔ}\eta$ ,  $\epsilon$ ,  $i$ ,  $\acute{\epsilon}\eta$

(24)  $L\epsilon n\acute{\omega}$      $chusii\text{-}\text{ɔ}$   
 Look    door:N-this:D  
 Look at this door

(25)  $L\epsilon n\acute{\omega}$      $chusii\text{-}i$   
 Look    door:N-that:D  
 Look at that door

The pattern of affixation onto the end of the root noun from the suitable noun class follows throughout all classes. The following is a list of the various affixes appropriate for each class.

**Class 7** suffixes:  $k\acute{\omega}\eta$ ,  $k\eta$

**Class 6a** suffixes:  $m\acute{\omega}\eta$ ,  $m\eta$

**Class 8** suffixes:  $b\acute{\omega}\eta$ ,  $b\eta$

In the class 8 examples we see the demonstrative affixes being used with a plural noun once again.

(26)  $L\epsilon n\acute{\omega}$              $b\acute{\omega}tambu\acute{\omega}t\text{-}b\acute{\omega}\eta$   
 Look            doves:N-these:DPI  
 Look at these doves

(27)  $L\epsilon n\acute{\omega}$              $b\acute{\omega}tambu\acute{\omega}t\acute{\omega}\text{-}b\eta$   
 Look            doves:N-those :DPI  
 Look at those doves

**Class 9** suffixes: ɔ, ɔ̂, ɔ̂h, e, ε, i, iη, εη

**Class 10** suffixes: hɔ̂h, ĥh, hi

Again, in class 10, we see the formation of a demonstrative using the plural noun as per example (31) below.

- (28) A kuu ηgo'hə-ɔ̂h mε?  
 You like stones:N-these:DPl QM?  
 Do you like these stones?

**Class 13** suffixes: tɔ̂h, tiη

**Class 19** suffixes: hɔ̂h, iη

There appears to be no use of the class based suffix system in demonstrative pronouns as illustrated by the contrasting answers to the following question. The words yɔ̂h and yiη are used to refer to this and that. Bɔ̂h and biη refer to these and those.

**Class 1**

- (29) Bε yɔ̂h ηwɔ'nə ndɔ-a kuu?  
 Be which book:N RC1-you like?  
 Which book do you like

- (30) Yɔ̂h ηwɔ'nə  
 This:D book:N  
 This book

- (31) Yiη ηwɔ'nə  
 That:D book:N  
 That book

- (32) Yiη-yu  
 This:D-one  
 This one

- (33) Yɔ̂h-yu  
 That:D-one  
 That one

**Class 9**

- (34) A kuu yɔ̂h ηgo'hə?  
 You like which stone:N?  
 Which stone do you like?

- (35) Mɔ kuu ηgo'-e  
 I like stone:N-that  
 I like that stone

- (36) Mɔ kuu ηgo'-ɔ̂  
 I like stone:N-this:D  
 I like this stone

This class based system is in contrast to the following non-class based examples:

(37) Yiŋ                yʉ  
That:D                one  
That one

(38) Yɔŋ                yʉ  
This:D                one  
This one

### Class 2

We see the same pattern in examples (40) and (41) in the plural.

(39) Bε    yɔŋ    bəŋwɔ'nə    ndə    a    kʉʉ?  
Be    which books:N    that    you    like?  
Which books do you like?

(40) Bɔŋ                bə  
These:DPl            ones  
These ones

(41) Biŋ                bə  
Those:DPl            ones  
Those ones

The outline above has illustrated the common method of forming the demonstrative in Bamunka using the root noun and a class based affix. However it also became apparent that in the case of the demonstrative pronoun this class based system is not utilised but rather that fixed affixes are used across classes.

### 3.8 Possessives

As is the case with demonstratives, possessives are expressed using affixes which are attached to the noun based on the class system. The possessive affix appears to always take the form of a suffix, following rather than preceding the noun. There does not seem to be any difference along the lines of emphatic versus non emphatic possessives. Emphasis is often shown by a repetition of the demonstrative at sentence initial and final position. This is illustrated in examples (42) and (43).

(42) Nɔ    ŋwɔ'nə-ɔŋ                                nɔ  
This    book:N –my:PossSg                        this  
This is my book

(43) Nɔ    bəŋwɔ'nə-bʉ'                                bə'nɔ  
These books:N-ours:PossPl                        Pl:these  
These are our books

The following are examples from various classes:

**Class 1**

- (44) Kə ɲwɲ'nə-ɔŋ tə-mɛ  
 Give book:N-my:PossSg to-me  
 Give me my book

In order to emphasise ownership an alternate form of possessive may be used.

- (45) Anyushi-i nɔ bɛ yɔŋ-yɯ  
 Onion:N-that:D is be my-own  
 That is my onion

**Class 3**

- (46) Nɔ bɛ fia-ɛ  
 That:D be road:N-his:PossSg  
 That is his road

- (47) Lɛnə chusii-i  
 Look door:N-her:PossSg  
 Look at her door

The formula of affixation to the root noun holds for plural as well as singular classes.

**Class 8**

- (48) Lɛnə tɯ-bɯə  
 Look heads:N-their:PossSg  
 Look at their heads

**Class 9**

- (49) Nɔ bɛ ndyi-a nɔ  
 This be cloth:N-your:PossSg this  
 This is your cloth

This is contrasted with the plural possessive form found in the sentence.

- (50) Nɔ bɛ ndyi-i nɔ  
 This be cloth:N-your:PossPl this  
 This is your(pl) cloth

**Class 10**

Here in example (54) we, again, see the double use of the plural demonstrative at the beginning and end of the clause. This may be an indication of emphasis as to the ownership of the items but this is yet unclear.

- (51) Nɔ bɛ ɲgo'hə-ɔŋ nɔ'hə  
 These be stones:N-my:PossSg these  
 These are my stones

- (52) Lɛnə ɲgo'hə-a'  
 Look stones:N-our:PossPl  
 Look at our stones



Emphasis appears to fall on the negative aspect of a clause rather than the positive when used in contrast, see example (53).

- (53) Nə                    ηwə'nə                    ya'                    ka                    yi-yu  
 This:D                    book:N                    our:PossPl                    not                    his:PossSg-own  
 fɛ                    ka  
 NM                    not  
 This is our book, not his book.

We see in the following example that a difference in emphasis/contrast does not appear to play a role in the formation of possessive pronouns.

- (54) Lɛnə                    ηwə'nə-ɔŋ  
 Look                    book:N-my:PossSg  
 Look at my book
- (55) Lɛnə                    bəŋwə'nə                    ya'  
 Look                    PM:books:N                    our:PossPl  
 Look at our books

In the plural form of the personal pronouns there is a dual inclusive/exclusive distinction. These are marked by class based suffixes attached to the root of the noun. In some cases tonal marking is used to highlight whether the speaker is referring to the inclusive or exclusive form. In other cases, however, no tonal distinction has been made and further research is required to assess whether any marking to make such a distinction is present in these cases. This lack of marking in some cases may be class based or it could be a case of the tone difference not having yet been identified. Class 3 exemplifies this with a tone distinction.

**Class 3**

- (56) Fyia-ya'  
 Road:N-our:PossInc (we two)  
 Our road
- (57) Fyia-yâ'  
 Road:N-our:PossExc (we two, not yours)  
 Our road
- (58) Fyia-yũ  
 Road:N-our:PossPL  
 Our road

The following examples are currently without a tone distinction and relevant differences are disambiguated by the context of the conversation.

**Class 9**

- (59) ŋgə'yâ'  
 Stone:N our:PossInc  
 Our stone

(60) Ɖgo'yâ'  
 Stone:N our:PossExc  
 Our stone

(61) Ɖgo'yũ̃  
 Stone:N our:PossPl  
 Our stone

The use of class based affixes, again, are the general rule for the formation of possessives. Alternate forms may also be used for the purpose of emphasis. Next we will look at the use and formation of another modifier of the noun in Bamunka, the adjective.

### 3.9 Adjectives

Adjectives are used to modify nouns. Their use is not based upon the noun class system and it appears that they usually follow the noun. They may precede the noun in some cases however. With regard to size, for example, small and big can come before the noun along with a number of other examples. The reasons for this are as yet unclear. Synonyms can be utilised for emphasis, 'small little man' for example. This may cause an adjective that usually follows the noun to precede it. This is illustrated as follows.

(62) Vaa            fia  
 Small:Adj      road:N  
 Small road

(63) Fia            tietie  
 Road:N        little:Adj  
 Little road

(64) Vaa            tietie            fia  
 Small:Adj      little:Adj      road:N  
 Small little road

There does not appear to be any agreement in terms of class or sing/plural. The order seems to appear in a similar order to English when several are used. However there doesn't seem to be a fixed order.

(65) Mɔ    bɔŋ            mbu            fia            luuhə            tietie  
 I        build:V:ST    the:Def        road:N        green:Adj      small:Adj  
 I built the small green road

(66) Mɔ    bɔŋ            mbu            fia            tietie            luuhə  
 I        build:V:ST    the:Def        road:N s      mall:Adj        green:Adj      I  
 built the small green road

In all of the following, the use of mbu for the is optional and will be understood as such even if left out. These examples illustrate the use of adjectives across various classes.

**Class 1**

- (67) Mbū            ηwə'nə            kəmbuu  
 The:Def        book:N            red:Adj  
 The red book
- (68) Mbū            ηwə'nə            kənduəŋ        kəmbuu  
 The:Def        book:N            old:Adj        red:Adj  
 The old red book
- (69) Mbū            ηwə'nə            kwə'təŋ        kənduəŋ        kəmbuu  
 The:Def        book:N            big:Adj        old:Adj        red:Adj  
 The big old red book

It is evident throughout these illustrations that adjectival modification is not class based.

**Class 3**

- (70) Mbū            chusii            kəmbuu  
 The:Def        door:N            red:Adj  
 The red door
- (71) Mbū            chusii            dədə            kəmbuu  
 The:Def        door:N            tall:Adj        red:Adj  
 The tall red door
- (72) Mbū            chusii            kwə'təŋ        kəmbuu        dədə  
 The:Def        door:N            big:Adj        red:Adj        tall:Adj  
 The big tall red door

**Class 9**

- (73) Mbū            ηgo'            kəfəŋ  
 The:Def        stone:N            black:Adj  
 The black stone
- (74) Mbū            ηgo'            kəfəŋ            tietie  
 The:Def        stone:N            black:Adj        small:Adj  
 The small black stone

There does not appear to be a specified order in the use of adjectives, however size related modifiers do tend to come before colour based modifiers as seen above.

**Class 10**

Here we see that plurality and, as above, class show no agreement with the adjective. As with others they can however be infixed into the noun in certain cases.

- (75) Mbū            bəŋwə'nə            kəmbuu  
 The:Def        books:N            red:Adj  
 The red books

- (76) Mbə            bəŋwə'nə        kənduəŋ        kəmbuu  
 The:Def        books:N        old:Adj        red:Adj  
 The old red books

In the following example the adjective kəfəəŋ 'black' is infixed into the word bəŋgo'hə meaning 'stones'. This will be discussed in more detail in section 3.9.1.

- (77) Mbə            bəŋgo'                            kəfəəŋhə  
 The:Def        stones:N:Prefix-Root        black:Adj-stones:Affix  
 The black stones

Again, in the next illustration both tietie and kəfəəŋ, the adjectives small and black, respectively, have been infixed into the noun in question.

- (78) Mbə            bəŋgo'                            tietie  
 The:Def        stones:N:Prefix-Root        small:Adj  
 kəfəəŋhə  
 black:Adj-stones:Affix  
 The small black stones

Where multiple qualifiers are present, a descriptive phrase may be used to avoid ambiguity. This may be used to clarify that the second qualifier is referring to the head noun rather than the first qualifier. This is exemplified in (82) below.

- (79) Mə    tənə            mbəə            mbə            kəfəəŋ  
 I        stand:V:ST    beside        the:Def        stool:N  
 bələə        kwə'təŋ        ndə    i        bə        kəfəəŋ  
 bamboo:Adj    big            that    it        be        black:Adj  
 LIT: I stand beside the stool bamboo big that it be black  
 I stood beside the big black bamboo stool

### 3.9.1 Adjective infixation into the noun

As we have seen above, the adjective may be infixed into the head noun in certain cases. The reasons for this are not fully known as of yet. However, a possible class based explanation has been observed in that classes 7 and 10, and possibly others, demonstrate this phenomenon. In such cases, adjectives which would usually follow the noun are infixed between the noun root and its suffix. As in example (80) below.

This is not the case, however, when the suffix of the noun has migrated to become a prefix. In such a case the adjectives follow or precede the noun in the usual manner. This will be discussed in further detail later.

- (80) a.        Fəŋkə:N:stood bələə:Adj:bamboo        kwə'təŋ:Adj:big  
 b.        Mə    du'            ndə    fəŋ            bələə        kwə'təŋ  
 I        sit:V:ST        on    stool:N:Root    bamboo:Adj    big:Adj  
 kə  
 stool:N:Affix  
 I sat on the big bamboo stool

### 3.9.2 Migration of suffix

In certain circumstances the suffix of classes 7 and 8 may migrate to become a prefix. The reasons are yet unclear but the following observations have been made.

Where the noun is the subject and does not have the definite article attached, the suffix does not migrate.

- (81) Fɔŋ                      bəlɛɛ                      kə  
 Stool:N:Root              bamboo:Adj              stool:N:Suffix  
 Bamboo stool

Where the noun is the subject and does have the definite article attached, the suffix does migrate.

- (82) Mbɛ              nkwe              kɛfɔŋ              bəlɛɛ              kəfɛɔŋ  
 The:Def              big:Adj              stool:N              bamboo:Adj              black:Adj  
 The big black bamboo stool

In the case of the head noun being a direct or indirect object, which is not qualified and does carry the definite article, the suffix does migrate.

- (83) Mɔ      chɛ'              mbɛ              kɛfɔŋ  
 I              make:V:ST              the:Def              stool:N  
 I made the stool

Where the noun, is not qualified, is a direct or indirect object, and does not carry the definite article, the suffix may or may not migrate. Both are acceptable.

- (84) Mɔ      du'              ndə      kɛfɔŋ  
 I              sit:V:ST              on              stool:N  
 I sat on the stool

The case in which the noun is a direct object and is qualified by a single qualifier, the suffix does not migrate. However it appears possible for the adjective to reverse in this case.

- (85) Mɔ              chɛ'              fɔŋkə              lɛɛbɛ  
 I                      make:V:ST              stool:N              bamboo:Adj  
 I made the bamboo stool

Where the head noun is an indirect object and is qualified by a single qualifier, the suffix may or may not migrate. Either is acceptable.

- (86) Mɔ      du'              ndə      mbɛ              kɛfɔŋ              bəlɛɛ  
 I              sit:V:ST              on              the:Def              stool:N              bamboo:Adj  
 I sat on the bamboo stool

*Or*

- (87) Mə du' ndə mbə fəŋ bəlɒ  
 I sit:V:ST on the:Def stool:N:Root bamboo:Adj  
 kə  
 stool:N:Aaffix  
 I sat on the bamboo stool

Where there is more than one qualifier either may apply. Data has yet to be compiled on the case of the direct or indirect objects without the definite article. With regard to qualifying nouns, the suffix always migrates in such cases.

We have seen that the use of adjectives is not class based in the Bamunka language. While there does appear to be a more commonly used order of adjective types at times, the reasons for this are not clear. The infixation of adjectives into the noun with the use of the definite article and the reversal of nouns when modified by an adjective in certain cases are unique features of this language. A possible area for further research would be the area of adjectival use with regard to direct and indirect objects without the definite article.

### 3.10 Pronouns

That data collected has focused on three forms of personal pronoun in Bamunka. These are the subject, direct object and indirect object pronouns. In some cases these are not class based while others are. Those that are class based are formed on the basis of the noun class system by attaching the relevant suffix to the root noun in question.

#### 3.10.1 Subject pronouns

These are not class based and tend to occur in sentence initial position.

- (88) ɔ chii mbə bəfɔ  
 She make:V:ST the:Det food:N  
 She made the food

Or:

- (89) ɔ chii fɔbə  
 She make:V:ST food:N  
 She made the food

Again see the reversal of noun in example (89) above with use of the definite article.

- (90) Ba' to' gɛ mu njaa vyii  
 We walk:V:ST go to house:N market:N  
 We walked to the market

- (91) Bəŋ chə' gɛ mɛ?  
 They early go QM?  
 Did they leave early?

- (92) ɔ yu fɔbə-əŋ  
 She eat:V:ST food:N-my:PossSg  
 She ate my food

### 3.10.2 Direct object pronouns

Unlike other Bantu languages there is no distinction made between human and non-human nouns in the use of the direct object pronoun.

- (93) (a) Jenny nyɔŋ fɔbə.  
 Jenny buy:V:ST food:N.  
 Jenny bought food
- (b) Mɔ yu  
 I eat:V:ST  
 I ate it.
- (94) Tom nɔ' kie bushi. Mɔ nɔ' kə nyiɛ  
 Tom P2 have cat:N. I P5 see:V  
 Tom had a cat. I saw it.

In (95) and (96) below we see the use of a class based suffix attached to the root noun. As was mentioned, there is no human vs non-human distinction made in the formation of the pronoun.

- (95) Tom nɔ' kie bushi. Mɔ nɔ' kə nyiɛ-ɔŋ  
 Tom P2 have cat:N. I P5 see:V-him  
 Tom had a cat. I saw him (Tom)
- (96) Jenny ghɔŋ\* Tom nɔ kie bushi.  
 Jenny and Tom P2 have cat  
 Mɔ nɔ' kə nyiɛ-ɔŋ.  
 I P5 see:V-it.  
 Jenny and Tom had a cat. I saw it.

It is notable that the conjunction \* ghɔŋ can mean and or with depending on the context.

### 3.10.3 Indirect object pronouns

- (97) Kɔ fɔbə tə mɔ  
 Give food:N to me  
 Give me food.
- (98) Kɔ ntɔŋhə tə mɔ  
 Give fruit:N to me  
 Give me fruit.
- (99) Mbɔ wo kə chlɔə' bɔŋ  
 The:Def man:N is laugh them  
 The man is laughing at them.

Next, we will look at the co-ordination of NP's in Bamunka.

#### 4.11 Co-ordination of noun phrases

Co-ordinate noun phrases consist of two or more nouns taking constituent position in a sentence which function together in forming one phrase. In Bamunka noun phrases are co-ordinated using the conjunctions *lɛ'nə* and *ghɔŋ*. These can both mean and or with alternatively and there appears to be no distinction of usage with regard to the co-ordination of human versus non-human nouns.

- (100) Mbɔ bushi kwɛtuɔŋ lɛ'nə mbɔ bu  
 The:Def cat:N big:Adj and the:Det dog:N  
 Tietie nɔ' kə ɣɛ mbɔ vyii  
 Small P5 go the:Def market  
 The big cat and the small dog went to the market

- (101) Bəlɔŋ bətia lɛ'nə bəkɛ bəbu nɔ' ɣɛ mbɔ  
 Men:N three and women:N two P2 go the:Def mutɔ  
 farm:N  
 Three men and two women went to the farm

In example (102) below we see the use of both *lɛ'nə* and *ghɔŋ*. The meaning appears to be the same with *ghɔŋ* possibly emphasising the fact that the dog is accompanying John.

- (102) John lɛ'nə ghɔŋ bu-I nɔ' kə  
 John and with dog:N-his P5  
 ɣɛ mbɔ vyii  
 go:V the:Def market:N  
 John and his dog went to the market

- (103) John lɛ'nə Kate nɔ' kə ɣɛ yəŋ kwɛ'təŋə  
 John and Kate P5 go:V place big  
 John and Kate went to town

With regard to a singular subject and plural subjects both *ghɔŋ* and *lɛ'nə* can be used interchangeably as is evident below.

- (104) John ghɔŋ bətiɛŋkɔŋ-bi nɔ' kə ɣɛ yəŋ kwɛ'təŋ  
 John and friends:N-his P5 go:V place big  
 John and his friends, went to town

- (105) Kate lɛ'nə bəlɔŋ-bi tɔ ɣɛ mbɔ mutɔ  
 Kate and sisters-her PRP go the:Def farm:N  
 Kate and her sisters are going to the farm

There appears to be little, if any, difference in the meaning and use of the conjunctions *ghɔŋ* and *lɛ'nə*. Both may be used interchangeably with *ghɔŋ* possibly being utilized to emphasise the accompaniment of one subject with another. There is no human/non-human or singular/plural distinction made in the use of these connecting words.



### 3.12 Co-ordination of pronoun and noun phrase

Again, we see the use of conjunction *le'nə* in the co-ordination of pronoun and noun phrase. *Ghəŋ* does not appear to be common in this context while an alternative word for with, *ba'a*, is regularly used. The pronoun tends to come at the beginning of the sentence in such cases.

(106) Mə le'nə Kate yu baakə  
I and Kate eat:V:ST fufu:N  
Kate and I ate fufu

(107) Mə le'nə le-əŋ nə' kə gɛ mbu mutə  
I and sister-my P5 go the:N farm:N  
My sister and I went to the farm

The use of *ba'a*, an alternative for the conjunction with is utilised in the following examples.

(108) Mə nə' yu baakə ba'a Kate  
I P2 eat:V fufu:N with Kate  
I ate fufu with Kate

(109) Mə nə' kə gɛ mbu mutə ba'a  
I P5 go the:DEF farm:N with  
le-əŋ  
sister-my  
I went to the farm with my sister

## 4. Description and Analysis of the phenomena

### 4.1 Noun

#### 4.1.2 No.of cases

The expression of various cases in Bamunka is straightforward and relatively simple with appropriate tenses and clause structuring used which often allows the case to be disambiguated by the given context.

In the genitive case, for example, marking seems to be a matter of order. One noun follows the other with the context disambiguating as to whether the genitive case is being used or not.

(3) Mbu ŋkwe chu ləŋ  
The:det handle:N mouth:N fence:N  
LIT:The handle (of the)mouth fence  
The handle of the gate.

Bamunka does not go into the detail of other languages, such as that of Latin.

#### 4.1.3 Number

The formation of the plural is more complex in Bamunka than in others, such as English or French, in that there are a variety of plural markers which are utilized based on the noun class in question.

The following two examples are taken from Table 4.4.

(a) <b>Class 1:</b>	ŋwɔ́'nə	Class 2:	bəŋwɔ́'nə
	Book:N		PM:book:N
	book		books

Furthermore, in some cases, the plural of a noun may involve using an alternate word.

(b) <b>Class 1:</b>	wo	Class 2:	bʉə
	Man:N		men:N

The expression of number may be viewed as simple in with regard to the formation of cardinal numbers. Cardinal numbers are straightforward in that they can precede or follow the noun and are not class based.

The expression of ordinal numbers is more complex in that they exist from first to third. After this however the sentence must be restructured so that the number that have gone before are used to indicate the ordinal position of the person/object etc in question.

#### 4.1.4 Definiteness

Bamunka makes a distinction between entities, which are specific and indefinable in two ways, using the definite and indefinite article mbu and mbʉ. The definite and indefinite articles in Bamunka could also be termed as simple in comparison to other languages such as French and Spanish in that they are not gender based but rather the respective mbu and mbʉ are the same in all situations.

#### 4.1.5 Gender

A number of languages such as English have no grammatical gender however there are some traces to be found such as are observed in the suffixes –er and ess in waiter/waitress. While Bamunka does not have a grammatical gender in the sense of masculine/feminine, we will see in the following section that the gender categories of Bamunka are based on a complex noun class system.

#### 4.1.6 Declension

This refers to the inflection of nouns, pronouns, and adjectives in categories such as case, number, and gender. This is not prominent in all languages.

We see clear evidence of complexity in Bamunka's Bantu based noun class system. Bamunka has a more complex system of declension in that nouns decline depending on what noun class they fall into. The noun class system used is that of the Bantu noun class numbering system. With ten classes of noun, based on commonalities in affixes and concords consonants, which include people, things and concepts this is a highly complex area of the language in question. Single and plural classes exist and these may be further grouped into gender pairings as we saw in *section 3.2*. The formation of clauses, sentences, possessives and demonstratives are all influenced by this noun class system.

*Section 3.7* illustrates the formation of various demonstratives based on this system. The following two examples contrast the use of different demonstratives affixes based on the class that the noun in question falls into.

**Class 1**

- (22) Lɛnə            ɲwɔ'nə-ɔŋ  
 Look      book:N-this:D  
 Look at this book

**Class 3**

- (24) Lɛnə            chusii-ɔ  
 Look            door:N-this:D  
 Look at this door

This is again highlighted in the class based formation of possessives, section 4.8, in Bamunka. See the comparison between the following singular and plural examples.

- (45) Nɔ            ɲwɔ'nə-ɔŋ            nɔ  
 This            book:N –my:PossSg    this  
 This is my book

- (46) Nɔ      bəɲwɔ'nə-bu'            bə'nɔ  
 These    books:N-ours:PossPl      Pl:these  
 These are our books

**5. Evaluation**

With regard to grammatical complexity two notable headings suggested by McWhorter (2005) are that of syntax and inflectional morphology. We will now examine the Bamunka Noun Phrase through the lens of these categories.

**5.1 Syntax**

Having looked at the noun in Bamunka under various headings we do see some level of balance. The area of case and definiteness, *sections* 3.3 and 3.6, appear relatively straightforward and simple. The depth of detail that is found in other languages, such as Latin, was not seen here. A higher level of complexity is clearly seen in the area of noun classes. The formation of demonstratives and possessives using class based affixes exemplifies this. The formation of the plural is also more complex than that of other languages such as English in that it involves class based morphological change unlike English which would use the common affixes of 's' and 'es' across nouns with the exception of a minority. The formation of ordinal numbers beyond the third involves restructuring of the sentence thus heightening the difficulty level. In the area of word order the SVO pattern is generally seen in the definite clause, however when it comes to interrogatives or expressing the topic of a sentence using fronting or dislocation we see increased levels of complexity. It is therefore evident that we see both simplicity and complexity across various areas, indicating a general balance in complexity thus far.

**5.2 Inflectional morphology**

While we have seen a degree of complexity in number in *section 5.1* above there is simplicity to be found here also in that there is not a high degree of inflection found in the formation of numbers. Cardinals numbers are straightforward in that they can precede or follow the noun and are not class based. The expression of comparison, as per *table 3.5*, is also simple in terms of morphology in that with the same comparative and superlative markers are used in

all cases. As discussed in section 8.2.1.5 the class based morphological changes seen in the Bamunka noun indicate a high degree of complexity when compared with other languages such as French or English in this area. With regard to declension, McWhorter (2005:46) notes that “inflection also complexifies a grammar when it encodes distinctions between noun classes or verb classes”. In light of these headings an introductory look at the Noun Phrase in Bamunka appears to support a general ‘tallying’ of complexity as supposed by the invariance of complexity hypothesis.

## 6. Conclusion

This study aimed to examine the layered structure of the Noun Phrase in Bamunka with specific reference to the theme of grammatical complexity. Language complexity has become an area of increasing interest and indeed controversy in recent years. Upon examination of the Bamunka data it would appear that there is a ‘balancing out’ of complexity in this aspect of the language. This lends support to the findings of adherents to the invariance of complexity hypothesis such as Jackendoff (1993) and Bane (2007). These findings do not negate McWhorter’s (2005) strong argument that some languages may indeed be simpler than others in terms of grammatical complexity as the language in question is not a creole nor was it very recently developed to the author’s knowledge. A more in depth study of Bamunka, along with a comparison of Bamunka with other Bantu languages and those outside of the Bantu family, as suggested by Nichols (2009), may give further insight into the complexity of this language and the strength of the invariance of complexity argument as a whole.

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