THE NGAMAMBO NOUN CLASS SYSTEM: CONCORD AND PREFIXHOOD[1]

Blasius Achiri-Taboh
University of Buea, Cameroon
achiri.blasius@ubuea.cm

Asongwed and Hyman (1976), in their "Morphotonology of the Ngamambo noun" attempt a classification of the Ngamambo noun.[2] They claim the language exhibits eleven noun classes, with seven singular-plural gender pairs and one single class gender. Another consideration of facts of the language, however, suggests that its noun class system is more sophisticated than previously thought. The present paper outlines a number of weaknesses in that classification, and shows that in Ngamambo, (1) some nouns appear to take overt prefixes, whereas in actual fact, they do not; and (2) with the exception of locative classes and the infinitive noun class marker, there are actually thirteen noun classes, with eight overt prefixes and five covert ones, and twelve singular-plural gender pairs and eight single class genders.

Asongwed et Hyman (1976), dans leur «Morphotonology of the Ngamambo noun» proposent une classification nominale du Ngamambo. Ils affirment que la langue présente onze classes nominales, dont sept paires de classes singulier-pluriel et une classe impaire. Une autre considération des faits de la langue suggère cependant que son système de classe nominale est plus sophistiqué qu'on ne le pensait. Le présent document décrit un certain nombre de faiblesses dans cette classification et montre qu'en Ngamambo:

- certains noms semblent prendre des préfixes visibles, alors qu'en réalité, il n'en est pas le cas ;
- à l'exception des classes locatives et du marqueur de l'infinitif de classe nominale, il y a effectivement treize classes nominales composées de huit préfixes visibles et cinq non-visibles dont douze paires de classes singulier-pluriel et huit classes impaires.

0. INTRODUCTION

Traditionally, a noun is a word that names a person, place, thing, quality, or action, possibly used as a subject or object of a verb, or the object of a preposition. In terms of Payne (1993), the term *noun* describes the class of lexical items whose prototypical members refer to either entities (e.g., chair, film), substances (e.g., butter, blood), or named individuals or locations (e.g., Chomsky, Santa, Cameroon). More formally, Langacker (1987) sees the noun as a word that can be basic, containing either a lone root with non-derived or derived affixes, or a compound with more than one root.

Generally, nouns are sub-classified based on grammatical and semantic properties that relate to definiteness, person, number, and gender. Such properties play a major role in determining which categories may co-occur with a given noun. Indo-European languages typically group nouns into semantic classes like common, abstract, animate, and mass nouns, or masculine and feminine nouns. Besides these, Bantu languages in particular also classify nouns by grouping them into morpho-syntactic groups.

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[1] I have discussed (parts of) this paper in different forms with Philip Mutaka and Larry Hyman, and I have benefitted immensely from the comments of an anonymous reviewer; I am very grateful for their insights. I am also grateful to my informant. Finally, I have benefitted from a semestral research allowance from the Faculty of Arts at the University of Buea, Cameroon, and a quarterly research modernisation allowance from the Cameroonian Ministry of Higher Education for which I am grateful.

[2] Ngamambo of which I am a native speaker is a Western Grassfields Bantu language of the Momo group spoken in the Santa sub-region of North-West Cameroon (cf. Hyman and Voorhoeve 1980, and Watters 2003). Other dialects of the language spoken within the Momo area include Moghamo, Metta, Menemo, and Ngiembu.

As it is well known, Bantu nouns may take morphological markers – prefixes, for the most cases – that systematically situate each one of them as a member of a specific morphological class. More precisely, following Maw (1994), a noun in Bantu consists of a prefix or two plus a stem, and is a member of one of eighteen to twenty-three groups into which Bantu nouns are classified. Such prefixes may trigger a system of concord that runs through other categories of words that co-occur with the noun, and may extend through a verbal group (VP). Thus, following Lojenga (1994), determiners, adjectives, and verbs in their conjugated forms show concord with the noun by taking the relevant nominal prefixes. In other words, as Carstens (1993:152) states, class membership determines the type of agreement borne by a noun's modifiers and complements, and by auxiliaries and verbs in relevant syntactic relations with it.

This paper examines the noun class system of Ngamambo. Specifically, it is a reaction to an earlier work by Asongwed and Hyman's (1976) on the Morphotonology of the Ngamambo noun. Asongwed and Hyman, henceforth A and H proposed a NCS of Ngamambo, which I briefly summarize here as a starting point (see appendix for the tables showing their NCS and gender pairs). In their discussions (pp. 25-28), A and H claim that the noun class system of Ngamambo is made up of eleven classes, five of them being singular and six being plural, with seven singular-plural gender pairs and one class containing single gender nouns. To be specific, they make the following claims. They point out that a typical Ngamambo noun consists of a monosyllabic prefix with either a homorganic nasal (N-) as in gender 9/10, a vowel (V-), a consonant (sequence) ((C)C-), or a consonant-vowel sequence (CV-), and usually a mono- or disyllabic stem. They then point out that some monosyllabic nouns occur without an (overt) prefix (including cases in genders 1/2 and 9/10), and that these include some borrowed nouns. With respect to the lack of an overt prefix, they claim that a few nouns in singular Class 1 and their counterparts in plural class 2 have a vowel initial root with either a **w-** or **b-** prefixes. They point out (p. 26) that "any noun which does not have a prefix can apparently be preceded by the vowel **ù**-", and suggest that this may be the result of a historic noun class prefix that has dropped.

A and H also claim (p. 27) that some nouns (like **ʉvó** [i.e., **ɨvú**, in the present perspective] 'death', **ʉkáp** [i.e, **ɨkáp**] 'money', **ʉywit** [i.e, **ɨywit**] 'fire' and **ʉkaŋ** [i.e, **ɨkaŋ**] 'sky') in class 3 only exist in the singular, and so conclude that "it is of course not possible to assign them to any gender". They further claim (hesitantly) that other class 3 nouns like **ʉkón** [i.e, **ɨkón**] 'bed', **ʉɲɔ́t** [i.e, **ɨɲót**] 'body', and **ʉtám** [i.e, **ɨtám**] 'thigh' "can apparently take their plural in either class 13 or in class 6a", corresponding to the prefixes **lə́**- or **mə́**- [i.e, **rɨ́** or **mɨ́**]. Finally, they point out that "three nouns have been found to exhibit a **ʌ́**- prefix, but do not participate in a singular/plural gender: **ʌ́cwɛ̂ɨ̂** 'sun', **ʌ́nə́m** 'blood', **ʌ́gwɨ́** 'dust'. Since classes 6 and 7 are identical except for number (…) we cannot determine which noun class to assign these nouns to. Comparative evidence from elsewhere in Western Grassfields suggests class 6, at least for 'blood'."

The present work is motivated by a series of discrepancies with that of A and H (1976). I give a fresh consideration to the NCS of Ngamambo as follows. The noun in the language typically consists of a prefix and a stem. I show that some nouns do not take overt prefixes as such, but apart from their semantic contents, they can equally be classified along with others on the basis of the sort of agreement they may trigger with other word categories in a construction. I also show that some nouns apparently take overt

prefixes, but actually do not. Besides, prefixes of some singular and/or plural classes take the same phonological form. In all, the paper shows that the NCS of Ngamambo is actually more sophisticated than previously thought: it exhibits more classes and more singular-plural gender pairs and single class genders, and there are no classes with both overt and covert prefixes as previously thought. In Section 1 that follows, I restate the noun class system of Ngamambo. In Section 2, I state the Noun-Adjective Concord (NAC) Generalization to justify the covert as opposed to the overt prefix established for some noun classes in Section 1. Sections 3 then rules out previous approaches: I discuss the discrepancies between A and H's system and the present one, and demonstrate why the former is to be rejected, in view of t the facts introduced in Section 2. The paper ends with a brief conclusion.

1. THE NOUN CLASS SYSTEM

The classification of Bantu nouns is based on a prototype noun class system. In other words, the noun class system for a typical Bantu language is a subset of a Protobantu noun class system (PBNCS).[3] With respect to Ngamambo, I follow A and H (1976) to claim that a typical Ngamambo noun consists of a monosyllabic prefix with either a vowel (V-), a consonant (sequence) ((C)C-), or a consonant-vowel sequence (CV-), and usually a mono- or disyllabic stem (though there are a few nouns with stems that consist of more than two syllables), and that some nouns occur without an (overt) prefix. Alongside nouns with overt prefixes, those without overt prefixes can equally be classified based on a number of factors. One of them is the sort of agreement or concord they may trigger with other elements in a construction. Another is based on semantic features. Thus, as Nurse (2006:682) points out, 'concord, incidentally, is not always automatic – animacy, for example, can sometimes override automatic class agreement'. In this section, I propose a refinement and an update of the noun class system of Ngamambo. I start by issuing a statement of methodology.

1.1 METHODOLOGY

I am a native speaker of Ngamambo. Thus the data considered in this work is provided mainly by me. However, for the purpose of verification, I have got help from another native speaker of the language, George Assanga. Mr. Assanga, age 50, is an architect and rural engineer who lives and works in Buea, Cameroon. He is well educated in English and is therefore bilingual in English and Ngamambo to be a suitable consultant for the present investigation. With his assistance (in data elicitation), I have encountered a series of discrepancies with previous analyses.

With respect to data elicitation, I have considered over 300 different nouns in Ngamambo, both concrete and abstract, and over 300 different phrases and sentences. Some of the nouns manifest different overt prefixes, while others do not show any overt prefixes. With the help of the phrases and sentences, I have been able to establish concord between the nouns and other word categories, with which together with other semantic

[3] The numbering of the noun classes as used today was first proposed by Bleek (1862). Since then, Meinhof (1906) and Meeussen (1967) have each proposed a refinement of the PBNCS.

properties of the Ngamambo noun, I have followed the tradition (see Meinhof 1906 and Meeussen 1967) to establish the noun class system of the language.

Considering the phrases and sentences in general has also helped in the phonemic inventory of the sounds of the language to be able to gain proper insight into prefixhood and the classification of the nouns. This also helps in pointing out some of the discrepancies with previous analyses, what has motivated the present one.

1.2 THE SOUNDS OF THE LANGUAGE

1.2.1 Vowels

Table 1 that follows is the Ngamambo vowel chart.

Table 1. The Ngamambo vowel chart

	Front	Central	Back
Close	**i**	**ɨ**	**u**
Close-mid	**e**	**ɘ**	**o**
Open-mid	**ɛ**	**ɜ**	**ɔ**
Open		**a**	

The table shows that the language exhibits ten short vowels, with four heights of central vowels, thus a multi-height system which, as Mutaka (p.c.) points out, is rare, although this has been known for Ngamambo for a while as noted by Hyman (p.c.). The following words in (1) are to exemplify the front vowels:

(1) a. **ɜfí̲m** wind [front high]
b. **ɨmê̲** sause/soup [front mid-high]
c. **ɜbɛ̲́ní** wind [front mid-low]

The central vowels are exemplified as follows:

(2) a. **ɨɣɨ̲́** eye [central high]
b. **ɨbɘ̲n** breast [central mid-high]
c. **ɜ̲tʃwêx** sun [central mid-low]
d. **wá̲n** child [central low]

Then the back vowels are shown as follows:

(3) a. **fɨ́ŋû̲ŋ** hair [back high]
b. **ɨkǫ̲n** tail [back mid-high]
c. **ɜtɔ̲́k** head [back mid-low]

1.2.2 Consonants

Table 2 is the phonetic chart of Ngamambo consonants. As it is the convention, every sound on the left of a cell is voiceless and the one on the right is voiced.

Table 2. The Ngamambo consonant chart

	Bi-labial	Labio-dental	Alveo-lar	Palato-alveolar	Palatal	Velar	Glottal
Plosive	**p b**		**t d**			**k g**	**ʔ**
Nasal	**m**		**n**		**ɲ**	**ŋ**	
Trill			**r**				
Fricative	**ß**	**f v**	**s z**	**ʃ ʒ**		**x ɣ**	
Approxi-mant	**w**				**j**		
Lateral approxi			**l**				

As the table shows, Ngamambo exhibits 24 individual consonants, which include 7 stops (or plosives), 4 nasal stops, a single trill, 9 fricatives, 2 approximants, and a single lateral approximant. Let us exemplify them as we have done with vowels, starting with fricatives which make up the most consonants in the language.

(4) a. **ɨtáß́ɨ** shoe [voiced bilabial fricative]
b. **f̱ɨ́bûm** belly [voiceless labiodental fricative]
c. **rɨ́v̱ɨ́rɨ̀** feathers [voiced labiodental fricative]
d. **s̱ɛx** earth [voiceless alveolar fricative]
e. **ɜẕɵ̂** broom [voiced alveolar fricative]
f. **ʃíwáŋ** sand [voiceless palato-alveolar fricative]
g. **ɨʒ̱ùm** to pierce [voiced palato-alveolar fricative]
h. **fɨ́bíx̱ fe** the knife [voiceless velar fricative]
i. **ɨɣ̱àm** to talk/speak [voiced velar fricative]

The stops are exemplified in (5).

(5) a. **rɨ̀tɵp̱** branches [voiceless bilabial stop]
b. **rɨ́ḇâp** wings [voiced bilabial stop]
c. **ɜṯíɣí** stones [voiceless alveolar stop]
d. **wɵ̀ḏ** man [voiced alveolar stop]
e. **mɨ́ḵaŋ** skies [voiceless velar stop]

f. **ɨgɔ̀g** to fall [voiced velar stop]
g. **rɘ́ŋaʔà** opener [voiceless glottal stop]

There are 4 nasals which are shown in the following examples.

(6) a. **ɜnémí** tongues [bilabial nasal stop]
b. **ɜkwɛ́ní** bone [alveolar nasal stop]
c. **fɨ́nûŋ** hair [palatal nasal stop]
d. **rɨ́ɲûŋ** hairs [velar nasal stop]

The 2 approximants are illustrated in (7).

(7) a. **wán** child [voiced bilabial approximant]
b. **wɘ́jí** woman [voiced palatal approximant]

Finally, Ngamambo exhibits only a single trill as in (8a), and a single lateral approximant as in (8b).

(8) a. **rɨ̀fiɣɛ̀bɔ** fingers [voiced alveolar trill]
b. **ɨlóʔó** mischief [voiced alveolar lateral approximant]

Besides these individual consonants, Ngamambo also exhibits a number of affricates and other sequences of the consonants on the chart, plus a few palatalized consonants. In all, there are six affricates which are exemplified as follows:

(9) a. **pfɨ́ɲàm** pig [voiceless labiodental affricate]
b. **ɨbvɨ̀tɨ̀** to crumble [voiced labiodental affricate]
c. **ɨtsùp** to soak [voiceless alveolar affricate]
d. **dzám** axe [voiced alveolar affricate]
e. **ɜtʃîn** lime water [voiceless palato-alveolar affricate]
f. **dʒìm** all [voiced palato-alveolar affricate]

Four of these affricates occur in a sequence with a nasal beginning as in (10).

(10) a. **mbvɨ̀ʔ** remainder
b. **Ntsàʔ** (*a personal name*)
c. **ndzɔ̀m** insult/curse
d. **ndʒìm** back

Other sequences involve a nasal plus a stop each. Six of such can be identified.

(11) a. **mbɔŋ** rain
b. **mpàʔ** cloud
c. **ntat** common meal/communion
d. **ndɔŋ** horn
e. **ŋkʲìʔ** basket
f. **ŋgam** langauge

The nasals /**n**/ and /**ŋ**/ and the stops /**t**/, /**k**/, and /**g**/ as in (12a-e), and the palato-alveolar fricatives as in (12f-g) are all seen in various words to precede the bilabial approximant /**w**/ (and may be seen as being labialized).

(12) a. **ɨnwɛ́ní** investigation
b. **fíŋwɛ́ní** whistle
c. **ɨtwɛn** to twist
d. **ɜkwɛ́ní** bone
e. **gwɛ́ní** hey
f. **ʃwìɣè** ugly/unpresentable (predicative use)
g. **ɨʒwɛm** to hem

The same is observed of the sequences /**ŋg**/, /**tʃ**/, and /**dʒ**/.

(13) a. **ŋgwèni** sleep
b. **ɜtʃwêx** sun
c. **ɨdʒwà** to spill

As (11e) above shows, sequences with initial nasals, as well as separate consonants may be palatalized as illustrated below.

(14) a. **ŋkʲìʔ** basket
b. **fɨŋgʲê** string
c. **kʲɛ́n/kʲɛn** big (attributive use)
d. **ɨgʲɛ́ndí** happiness

Finally, some stops are seen to also occur in a sequence. These involve the voiceless alveolar /**t**/ and bilabial /**p**/, and the voiced velar /**g**/ and bilabial /**b**/.

(15) a **tpaŋa** intensely sour (attributive use)
b. **ɨgbaŋgɨ** to reprimand someone noisily or with a shout

1.3 THE NOUN CLASSES

As it is the case with many other Bantu languages, the following generalizations can be made about Ngamambo nouns:

- They typically consist of a stem each with a prefix.
- Some of them take a covert prefix.
- They typically occur in pairs of singular and plural nouns called genders.
- Overt prefixes of some singular and/or plural classes take the same form.
- Noun prefixes typically trigger a system of concord that runs through other co-occurring categories of words.
- There is some semantic content to each class and gender.

On the bases of these generalizations, let us now outline the noun classes as follows.

Table 3. The Noun Class System of Ngamambo

Class	Prefix	Concord
1 (Sg.)	**ø-**	**w-**
2 (Pl.)	**mbɨ-**	**mb-**
3 (Sg.)	**ɜ-**	**z-**
4 (Pl.)	**ø-**	**mb-**
5 (Sg.)	**ɨ-**	**w-**
6 (Pl.)	**ɜ-**	**z-**
7 (Sg.)	**rɨ-**	**z-**
8 (Pl.)	**mɨ-**	**mb-**
9 (Sg.)	**ø-**	**z-**
10 (Pl.)	**ø-**	**t-**
11 (Pl.)	**ø-**	**mb-**
12 (Sg.)	**fɨ-**	**f-**
13 (Pl.)	**rɨ-**	**t-**

Typical languages have between 15 and 21 classes and at least six genders, leaving some single classes with no plural pairing. (See Nurse 2006:682, for some details.) As the tradition dictates, I list the classes following the ProtoBantu numbering system (Meinhof 1906, and Meeussen 1967) indicated earlier. I also indicate the consonant prefixes used by each class to mark concord on other co-occurring categories of words.

As Table 3 shows, our investigation yields 13 noun classes for Ngamambo, with the exclusion of locative classes. Of these, 8 exhibit overt prefixes, and 5 covert. Apart from marking agreement, the concord consonants also sometimes function to distinguish between classes that share the same prefix, and to indicate plurality for unpaired gender nouns. As the table also indicates, singular nouns mark concord with either **w-** (Classes 1 and 5), **f-** (Class 12), or **z-** (Classes 3, 7, and 9), while plural nouns do so with either **mb-** (Classes 2, 4, 8, and 11), **t-** (Classes 10 and 13) or **z-** (Class 6). These are summarized in the following table:

Table 4. Concord in the Ngamambo Noun Class System

	Concord consonant	Class
Singular	**w-**	1, 5
	z-	3, 7, 9
	f-	12
Plural	**mb-**	2, 4, 8, 11
	z-	6
	t-	10, 13

Besides, the language is seen to exhibit 12 singular-plural gender pairs. As Nurse (2006) points out, a typical characteristic of Bantu noun classification is that there is some semantic content to each class and gender. I enlist (and characterize) the gender pairs here with examples; the definite article is used following the sample nouns to illustrate concord – note that like most Bantu languages, Ngamambo is a noun-first language. Nouns of classes without an overt prefix are marked with ø-.

(16) Gender 1/2 (consists mainly of human nouns)

a. **øwɘ̀d we** the man / **bɵ̂d mbe**

b. **øábû we** the mother / **mbăbû mbe**

(17) Gender 1/8[4]

a. **ønúm we** the husband / **mɨ́núm mbe**

b. **økùmu we** the noble / **mɨ̀kùmu mbé**

c. **økáná we** the monkey / **mɨ̀kàna mbé**

(18) Gender 3/4 (typically made up of plants)

a. **ɜbɔ́ ze** the hand / **øbɔ́ mbe**

b. **ɜzɛ́rí zé** the tree / **øzɛ́rí mbé**

c. **ɜbín ze** the dance / **øbín mbe**

(19) Gender 3/8

a. **ɜwɔn zé** 'the illness' / **mɨ́wɔn mbé**

b. **ɜfím ze** 'the wind' / **mɨ́fím mbe**

(20) Gender 5/4

a. **ɨbít we** the war/ **øbít mbe**

b. **ɨkɔ́ndɨ́ wé** the idea/ **økɔ́ndɨ́ mbé**

[4] Borrowed nouns in Ngamambo generally fall in this gender. Some of those that are frequently used are as follows:

(i) **ømátà we** the mat / **mɨ̀mátà mbe**

(ii) **ølâm we** the lamp / **mɨ̀lam mbé**

(21) Gender 5/6 (with augmentatives and also diminutives and body parts)

a. **ɨsɔŋ wé** the tooth / **ɜsɔŋ zé**

b. **ɨnémí wé** the tongue /**ɜnémí zé**

(22) Gender 5/8

a. **ɨɲíʔ we** the rope / **míɲíʔ mbe**

b. **ɨkaŋ wé** the sky / **míkaŋ mbé**

c. **ɨŋwên we** the hut / **míŋwên mbe**

d. **ɨdên we** the excuse /**mídên mbe**

(23) Gender 5/13

a. **ɨbâp we** the wing / **ríbâp te**

b. **ɨɣúmú we** the mountain /**ríɣúmú te**

c. **ɨbíx we** the cutlass / **ríbíx te**

d. **ɨkom wé** the juju / **ríkom té**

(24) Gender 7/13 (with diminutives and augmentatives)

a. **rɨbà ze** the sea / **rɨbà te**

b. **ríndʔɔndɔŋ zé** the chameleon / **ríndʔɔndɔŋ té**

c. **ríkúßí zé** the box / **ríkúßí té**[5]

(25) Gender 9/10 (mainly made of animal names and other miscellaneous items)[6]

a. **ødzɔ́ ze** the snake / **ødzɔ́ te**

b. **øgwí ze** the goat / **øgwí te**

c. **ønɔ́p ze** the house / **ønɔ́p te**

(26) Gender 9/13

a. **øfiɣèbɔ ze** the finger / **rɨfiɣèbɔ té**

b. **øfin ze** the xxx (=a traditional concept at the palace) / **rɨfin té**

(27) Gender 12/13 (with mainly diminutives)

a. **fítám fé** the seed / **rítám té**

b. **fíkáʔà fe** the stick / **ríkáʔà te**

c. **fɨnɔ̀n fé** the bird / **rɨnɔ̀n té**

d. **fɨfè fé** the parrot / **rɨfè té**

[5] Idiolectally, some speakers pair these class 7 nouns with (plural) class 2 by superimposing the class 2 prefix in front of the class 7 prefix to obtain the plural as in, for instance, **rɨbà ze** 'the sea' (pl: **mbɨrɨbà mbe**). I indicate this with a broken line in Table 5 below.

[6] This pair is sometimes seen as a dumping ground for nouns that do not fit elsewhere (Nurse 2006).

In some classes, some nouns may appear only in singular or plural, and so do not pair up in a gender. These are as follows:

(28) Gender 1

a. **ømɘ́ndzùɣɔ we** the peanut(s)

(29) Gender 3

a. **ɜvúrú zé** the ash
b. **ɜmə̂ʔ ze** the dew
c. **ɜfûp ze** the darkness

(30) Gender 5

a. **ɨmê we** the soup
b. **ɨwíní wé** the wood

(31) Gender 7

a. **rɨ́tsáʔá zé** the mud
b. **rɨ́té zé** the pepper

(32) Gender 9

a. **øtʃí ze** the termite(s)
b. **øndiʔ ze** the smoke

(33) Gender 10

a. **øndzìx te** the hunger

(34) Gender 11

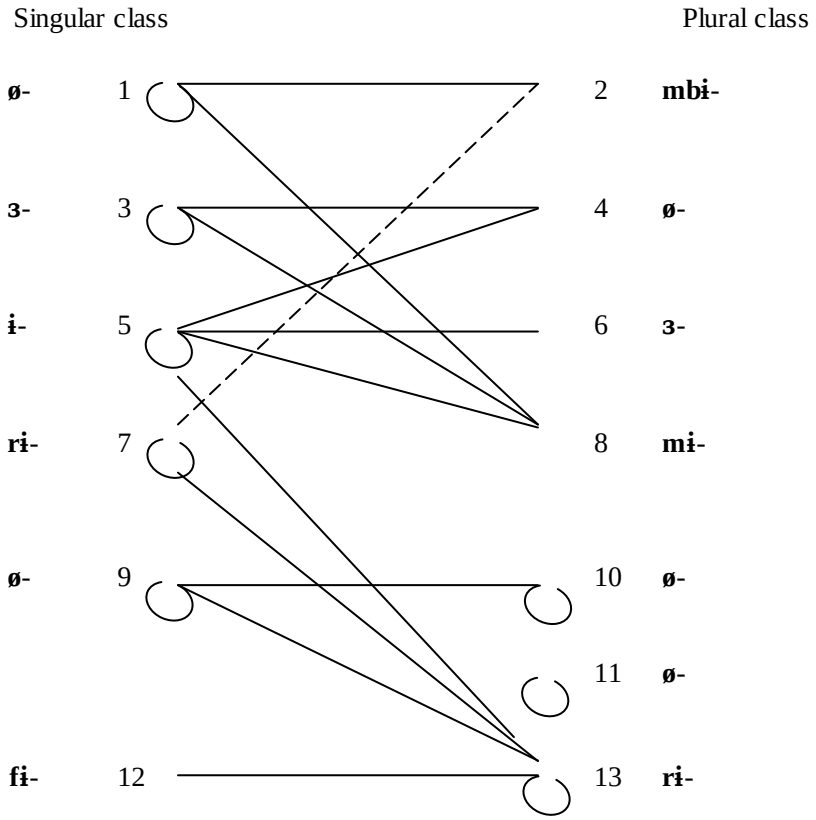
a. **ømɨ́ʃí mbe** the tears
b. **ømɨ́ɲíp mbe** the water

(35) Gender 13

a. **rɨ́bít te** the faeces
b. **rɨ́bɔ́ßɨ́ té** the rotten suckers

This system of genders is summarizes below. Classes with single gender nouns are indicated in the table with an arc (i.e., an uncompleted circle).

Table 5. Noun class gender-pairing in Ngamambo



Verb infinitives carry a class prefix in Bantu, mostly Class 15 or sometimes Class 5 (Lojenga 1994). In Ngamambo the infinitive marker is the same as the class 5 prefix and so we can take the latter to also mark verb infinitives. As Lojenga also points out, Classes 16, 17, and 18 are locative classes which geographically indicate a precise location, general location, and an inside location, respectively. In Ngamambo, a specific or inside location is indicated by means of prepositions, while a general location is by means of a prefix similar to the Class 3 prefix on any noun that names a location.

In summary, with the exception of the locative classes and the infinitive noun class marker, we have established a noun class system of thirteen classes for Ngamambo, eight of them with overt prefixes and five with non-overt prefixes, and twelve singular-plural gender pairs and eight classes with single gender nouns.

2. PREFIXHOOD AND THE NOUN-ADJECTIVE (N-A) CONCORD GENERALIZATION

An important factor about the classification of Bantu nouns in terms of affixation is that noun prefixes may trigger a system of concord that runs through other categories of words in a nominal group (NP) and may extend through the verbal group (VP), such that determiners, adjectives, and verbs in their conjugated forms manifest a morphological agreement, that is, concord with the noun by taking a relevant concord prefixes (Lojenga 1994). As Carstens (1993:152) states, therefore, class membership determines the type of agreement borne by a noun's modifiers and complements, and by auxiliaries and verbs in relevant syntactic relations with it. In this section, I cast another look into this concord system so as to justify the presence or absence of an overt prefix for the noun classes suggested in the previous section. Specifically, I suggest the Noun-Adjective Concord Generalization which predicts the presence or absence of an overt prefix on a noun.

As pointed out in the introduction, the noun in Ngamambo typically consists of a prefix and a stem, and can therefore be classified on the basis of its prefix. We have also claimed that some Ngamambo nouns do not manifest overt prefixes, though they can equally be classified along with others based on concord and semantic content. However, some nouns in the language appear to take overt prefixes, whereas in actual fact, they do not. These include some (human) nouns (of gender 1/2) as seen in (36) below, which all begin with the approximant /w/ – I add the (post positioned) definite article to show concord for reasons that become clear later.

(36) a. **wɔ̀d we** the man/person/human being
b. **wɔ́jí we** the woman
c. **wán we** the child
d. **wámbaŋà we** the boy (male child)
e. **wánɔ̀jí we** t he girl (female child)

They also include some (animal) nouns (of gender 9/10) as in (37) below, which according to A and H, begin with a homorganic nasal.

(37) a. **ɲâm ze** the animal
b. **ɲát ze** the buffalo
c. **mbàp ze** the giant rat
d. **ŋgap ze** the antelope
e. **ŋgup ze** the chicken
f. **ndom ze** the mole
g. **ndʒißì ze** the hedgehog

Others seem to show the syllable **rə-** as in (38a,b,c), or **mə-** as in (38d,e), all Class 1 nouns (with stems of more than two syllables), as a prefix which would turn out not to be at all – in fact, it might be thought, like in Achiri-Taboh (2006), that these syllables are actually variants of the Classes 7/13 and 8 prefixes **ri-** and **mi-** respectively.

(38) a. **rə́ŋgwìnɛ we** the garden egg/egg plant
b. **rə́ndaŋa we** the blackbird
c. **rə́tsòʔnɜ we** the clock bird
d. **mə́ndɔ̀ʔɔ we** the masquerade
e. **mə́ndzùɣɔ we** the peanut

The prospect that the beginnings shown in (36-38) are actually not noun class prefixes as they seem to be is intriguing. But how do we know that some initial segments or syllables on the Ngamambo noun that appear to be noun class prefixes are actually not, and that the relevant classes actually take a covert prefix? Crucially, there is one phenomenon exhibited by attributive adjectives in Ngamambo that furnishes us with a diagnostic.

It is generally maintained that Bantu languages only exhibit a small number of adjectives. According to Nurse (2006), only a dozen or so adjectives can be reconstructed for Proto-Bantu. See Katamba (2003), and Schadeberg (2003) for details on word classes in Bantu languages. Adjectives in Ngamambo generally occur in two main forms that correspond to their use as either predicative words without noun class prefixes or attributive words with noun class prefixes – note that adjectives are generally used in language to describe nouns. In other words, when the adjective in Ngamambo occurs within the noun phrase, it takes the prefix of the noun (overt or covert), otherwise it doesn't. As Table 6 below shows, the attributive forms are further broken into two sub-forms each, the difference being tonal as either high (H) with an overt prefix or low (L) without an overt prefix. Ten Ngamambo adjectives are shown here.

Table 6. Forms of Ngamambo adjectives

Adjective	Predicative	Attributive	
		H: with overt prefix	L: without overt prefix
dry	**zom**	**-zóßɨ́**	**-zòßɨ**
wet	**ɲàʔ**	**-ɲaʔa**	**-ɲàʔa**
hot	**nòm**	**-nomɨ**	**-nòmɨ**
cold	**ʒù**	**-ʒû**	**-ʒù**
big	**faŋ**	**-kyɛ́n**	**-kyɛn**
small	**kə**	**-kwá**	**-kwà**
old	**ɲùn**	**-ɲun**	**-ɲùn**
red	**bàŋ**	**-baɣɨ**	**-bàɣɨ**
black	**fin**	**-fírí**	**-fìri**
white	**fɔk**	**-kɨ̀fɔ́k**	**-kɨfɔ́k**

As the reader can see, Ngamambo adjectives are mainly monosyllabic words in the predicative form with no predictable tone. In their attributive forms, the adjectives post modify the noun within the NP, and are made up of a stem plus the prefix of the noun they

modify. In this latter forms, the stems are mostly either monosyllabic and phonologically resemble the predicative forms, or they are disyllabic words derived from the predicative forms. The tonal difference determines the presence or absence of an overt prefix on the noun. Thus, for our diagnostic, if the noun, singular or plural, takes an overt prefix, the latter is replicated on the adjective, and the tone of the adjective becomes anything but low or rising (i.e., it could be high, mid, or falling), and so can be labeled H. If a singular noun occurs without an overt prefix, the adjective takes no visible prefix, and the tone is anything but high (i.e., it could either be low or mid), and can thus be labeled L (i.e., these tonal changes are not the sort of systematic changes described in Aziza (2003), for example, in the Urhobo noun phrase).[7] Plural nouns without an overt prefix behave differently; I return to them a little later. To illustrate, the adjectives 'dry' and 'cold' are shown in the following paradigms with nouns that take overt class prefixes juxtaposed with those that take covert (ø-) class prefixes – observe that the adjectives take a high or falling tone with overt prefixes, and a low tone with covert prefixes.

(39)	a.	**ɜtúɣ ɜzóßí**	dry head	/	**øfɨŋ øzòßɨ**	dry heart
	b.	**fíkiŋ fízóßí**	dry pot	/	**ømbò? øzòßɨ**	dry shelf
	c.	**rítí?ì rɨzóßí**	dry baskets	/	**ønɘ́p øzòßɨ**	dry house
	d.	**ɨfú? ɨzóßí**	dry leaf	/	**økwì øzòßɨ**	dry corn
	e.	**ɨɲí? ɨzóßí**	dry rope	/	**øɲâm øzòßɨ**	dry meat
	f.	**mɨpfíɲàm ɨzóßí**	dry pigs	/	**øpfíɲàm øzòßɨ**	dry pig
(40)	a.	**ɜtúɣ ɜʒû**	cold head	/	**øfɨŋ øʒù**	cold heart
	b.	**fíkiŋ fɨʒû**	cold pot	/	**ømbò? øʒù**	cold shelf
	c.	**rítí?ì rɨʒû**	cold baskets	/	**ønɘ́p øʒù**	cold house
	d.	**rífú? rɨʒû**	cold leaves	/	**økwì øʒù**	cold corn
	e.	**míɲí? ɨʒû**	cold rops	/	**øɲâm øʒù**	cold meat
	f.	**mɨpfíɲàm ɨʒû**	cold pigs	/	**øpfíɲàm øʒù**	cold pig

Observe that, in (40e/f) (and (39f)), the prefix **mɨ-** does not seem to replicate on the attributive adjective as expected, but rather seem to give way to a different prefix **ɨ-**. However, since the prefix on the adjective and the one on the noun share the same vowel, we can assume that, for some phonological reasons, the nasal is dropped when the adjective takes the prefix. We come across similar drops later.

Let us now return to the plural noun that occurs without an overt prefix. Here, the attributive adjective that modifies it must take an overt plural prefix of another class with which the noun shares a concord consonant on loan, as a last resort, since the adjective has to appear in plural to match the plural noun. Note that, while determiners mark concord with the noun in Ngamambo by taking a concord consonant (cf. Table 3/4), adjectives

[7] There are possible exceptions here. One is with the adjective 'white' which occurs the same in both attributive forms with a default initial low tone syllable and a high tone stem.

rather do so by taking the noun class prefix itself. As a result, the adjective also takes the H-form. Consider the following paradigm – as we have seen (cf. Table 3 above), the (plural) Class 10 nouns in (41), with a covert noun prefix, share the same concord prefix **t-** with nouns of class 13 which take the overt noun prefix **rɨ-**.

(41)	a.	**ønɔ́p øzòßɨ**	dry house /	**ønɔ́p rɨzóßɨ́**	dry houses
	b.	**ømbò? øzòßɨ**	dry shelf /	**ømbò? rɨzóßɨ́**	dry shelves
	c.	**økwì øʒù**	fresh cub of corn/	**økwì rɨʒû**	fresh cubs of corn
	d.	**øŋgap øʒù**	fresh antelope /	**øŋgap rɨʒû**	fresh antelopes
	e.	**øto? økyɛn**	dry cup /	**øto? rɨkyɛ́n**	big cups

Our discussion in this section so far leads us to a generalization on the noun-adjective (N-A) concord, which I state in two forms, a weak form (42a) and a strong form (42b).

(42) The Noun-Adjective (N-A) Concord Generalization:
  a. The noun class marker is replicated on an attributive adjective modifier.
  b. A noun that cannot be modified by the H-form attributive adjective does not take an overt prefix.

What this means is that there is a H/L dichotomy in the modification of nouns with or without overt prefixes by attributive adjectives, that is, as the weak form in (42a) simply states, whatever prefix a noun takes, overt or covert, would be replicated on the attributive adjective that modifies it. The strong form in (42b) is intended to circumvent the problem posed by plural nouns like those in Class 10 that occur without an overt prefix. That is, we can explain this by saying that since a plural noun without an overt prefix can be modified by the H-form attributive adjective with a loan prefix as in (41) above, the noun takes an overt prefix on loan, as a last resort.

If the N-A Concord Generalization in (42) is correct, then examples like those pointed out earlier in (36-38) should take the L-form attributives rather than the H-forms (cf. Table 6) as a diagnostic to show that, in spite of appearances, they actually take covert prefixes rather than overt ones. Consider the following paradigms in which the spurious examples are juxtaposed with non-spurious ones, and are both tested against the same adjectives:

(43) with the adjective 'black'

a.	**øwɔ̀d øfìri**/***øwɔ̀d øfírí**	black man	**/ɜwɛn ɜfírí**	black hale
b.	**øwɔ́jí øfìri**/***øwɔ́jí øfírí**	black woman	**/ɜzɛ́rí ɜ́fírí**	black tree
c.	**øwán øfìri**/***øwán øfírí**	black child	**/fɨmbàŋ fɨfírí**	black scepter
d.	**øwámbaŋà øfìri**/***øwámbaŋ øfírí**	black boy	**/rɨtpɔ́ŋ rɨfírí**	black stars
e.	**øwánɔ̀jí øfìri**/***øwánɔ̀jí øfírí**	black girl	**/fɨnàn fɨfírí**	black ant

(44) with the adjective 'dry'

a.	**øɲâm øzòßɨ**	/***øɲâm øzóßɨ́**	dry animal	**/ɜwɛn ɜzóßɨ́**	dry hale
b.	**øɲát øzòßɨ**	/ ***ømbàp øzóßɨ́**	dry buffalo	**/rɨ́tpɔ́ŋɔ́ rɨzóßɨ́**	dry stars
c.	**ømbàp øzòßɨ**	**/*ømbàp øzóßɨ́**	dry giant rat	**/fɨmbàŋ fɨzóßɨ́**	dry scepter
d.	**øŋgap øzòßɨ**	**/*øŋgap øzóßɨ́**	dry antelope	**/ɜzɛ́rí ɜzóßɨ́**	dry tree
e.	**øŋgup øzòßɨ**	**/*øŋgup øzóßɨ́**	dry chicken	**/fɨnàn fɨzóßɨ́**	dry ant
f.	**øndom øzòßɨ**	**/*øndom øzóßɨ́**	dry mole	**/míɲí? ɨzóßɨ́**	dry ropes

(45) with the adjective 'red'

a.	**ørɔ́ŋgwìnɛ øbàɣɨ**	**/*ørɔ́ŋg. øbaɣɨ**	red garden egg	**/ɜwɛn ɜbaɣɨ**
b.	**ørɔ́ndaŋa øbàɣɨ**	**/*ørɔ́nd. øbaɣɨ**	red blackbird	**/ɜzɛ́rí ɜ́baɣɨ**
c.	**ørɔ́tsò?nɜ øbàɣɨ**	**/*ørɔ́ts. øbaɣɨ**	red clockbird	**/fɨmbàŋ fíbaɣɨ**
d.	**ømɔ́ndɔ̀?ɔ øbàɣɨ**	**/*ømɔ́n. øbaɣɨ**	red masquerade	**/rɨ́tpɔ́ŋɔ́ rɨ́baɣɨ**
e.	**ømɔ́ndzùɣɔ øbàɣɨ**	**/*ømɔ́n. øbaɣɨ**	red peanut	**/fɨnàn fɨ́baɣɨ**

As the facts in (43-45) show, the generalization in (42) holds. In these paradigms, the spurious examples, unlike their non-spurious counterparts, are unacceptable with the H-form attributives, what clearly demonstrates that they do not take overt prefixes, and that the initial approximant (/w-/) in (43), initial (homorganic) nasal in (44), and the initial syllables in (45) are not noun class prefixes. Besides, as Table 3 shows, the Classes 7/13 and 8 nouns that take the prefixes **rɨ-** and **mɨ-**, respectively, generally mark concord using the concord consonants **z-**/**t-** and **mb-**, respectively, whereas those in (45) with these spurious prefixes, all Class 1 nouns, rather use **w-** (see (38) above).[8]

One thing that corroborates our diagnostic is that, in the plural form, the overt plural Class 2 prefix simply precedes the spurious prefix on the nouns in (36) and (38) rather than replace them, further demonstrating that the latter are not (true) prefixes.[9] When this happens, the result is that the L-form attributive adjective changes to the H-form in respect of the N-A Concord Generalization. Compare the singular and plural forms ((46) is further discussed below).

(46) with the adjective 'big'

a.	**øwɔ̀d økjɛn**	big man /	**bɔ́d ɨkjɛ́n**	big men
b.	**øwɔ́jí økjɛn**	big woman /	**mbɔ́jí ɨkjɛ́n**	big women
c.	**øwán økjɛn**	big child /	**bɔ́n ɨkjɛ́n**	big children
d.	**øwámbaŋà økjɛn**	big boy /	**bɔ́mbaŋà ɨkjɛ́n**	big boys
e.	**øwánɔ̀jí økjɛn**	big girl /	**bɔ́nɔ̀jí ɨkjɛ́n**	big girls

[8] We have observed earlier in Section 1 that nouns in Ngamambo are mostly made up of monosyllabic and disyllabic stems, and that stems with more than two syllables are rare. Thus the temptation to take the initial syllables in (45) as class prefixes at face value is real.

[9] As we have seen, from facts of the language singular and plural noun prefixes only alternate rather than collocate. That is, the covert singular prefix is replaced by an overt plural prefix.

(47) with the adjective 'small'

a. **ørɘ́ŋgwìnɛ økwa** small garden egg / **mbɨ̀rəŋg ɨkwá** small garden eggs

b. **ørɘ́ndaŋa økwa** small blackbird / **mbɨ̀rəndaŋ ɨkwá** small blackbirds

c. **ørɘ́tsòʔnə økwa** small clockbird / **mbɨ̀rətsòʔn ɨkwá** small clockbirds

d. **ømɘ́ndɔ̀ʔɔ økwa** small masquerade / **mbɨ̀mənd ɨkwá** small masque.s

Our analyses suggest that in (46), the initial consonant on the plural noun /**b**/ as in (46a/c/d/e) or /**mb**/ as in (46b) is actually the same Class 2 prefix **mbɨ**- seen in (47), since the H-form attributive adjective that goes with them takes the initial vowel **ɨ**- which, as we have seen, should be the result of a phonological drop. That is, all two sets in (46) and (47) take a covert prefix in singular and the same overt prefix in plural. This is evidenced by the fact that other (human) nouns of gender 1/2 that neither begin with /**w**-/ nor with the spurious prefixes (as in (16) above) take the same prefix in their plural forms. Examples are illustrated in the paradigm in (48).

(48) a. **ábû** mother **mbɨ̀** + **ábû** = **mbǎbû** mothers

b. **árɨ́ngɔp** sibling **mbɨ̀** + **árɨ́ngɔp** = **mbǎrɨ́ngɔp** siblings

We can therefore say that the prefix occurs on any of the human nouns in (46) to give it its plural form, with the result that relevant phonological processes allow both the high central unrounded vowel /**ɨ̀**/ of the prefix and the initial approximant /w/ of the noun stem, to delete, and the remaining consonant of the prefix to alternate between /b/ and /mb/ as in (49).[10]

(49) a. **mbɨ̀** + **wɔ̀d** = [**bɔ̂d**]
Pl man men

b. **mbɨ̀** + **wɔ́jí** = [**mbɔ́jí**]
Pl woman women

c. **mbɨ̀** + **wán** = [**bɔ́n**]
Pl child children

d. **mbɨ̀** + **wámbaŋà** = [**bɔ́mbaŋà**]
Pl boy boys

For the Class 9 examples in (37), their plural forms in Class 10 do not change – as Tables 3 and 5 show (also see the illustrations in (25)), the nouns of gender 9 do not change in their singular or plural forms. If the initial (homorganic) nasal on some Class 9 nouns as shown in (37) was a class prefix, we would expect it to be replaced by a plural prefix, but this does not happen to show that it is rather part of the noun stem than an overt class prefix. In other words, both prefixes in gender 9/10 are covert, and as we have seen, what makes the difference is concord.

[10] Arguably, the sum total of the plural prefix plus the word stem leads the high central unrounded vowel to delete in front of the semi-vowel /**w**/, rendering the bilabial consonant /**b**/ to have a representation by which it is prenazalized and rounded /^{m}**b**^{w}/, and that prenazalization and rounding are then dropped at surface representation for other phonological reasons.

Though the regular beginnings in the examples in (36) to (38), nevertheless, suggest that the approximant /w/, the homorganic nasal, or the syllables **rə** and **mə** are actually class prefixes, it is worth noting that each of the groups has a very limited membership – very few human nouns begin with the approximant, and very few animal nouns begin with the (homorganic) nasal (see gender 9/10 in (25) for other examples). Thus, one way of resolving the puzzle is to suggest that members of each of the groups are actually derived from one particular base word by compounding. This can easily be seen in (36) repeated below as (50) for expository convenience.

(50) a. **wə̀d** man/person/human being
b. **wɔ́jí** woman
c. **wán** child
d. **wámbaŋà** boy (male child)
e. **wánə̀jí** girl (female child)

That is, if the word for 'man' is taken to be the base, then the word for 'woman', for example, is derived by adding the morpheme (i.e., the adjective) **jí** 'little' to directly mean 'lesser man' (presumably, in many cultures, the woman is traditionally seen in that light, and the same analysis may possibly hold true for the English word *woman* with the presumed addition of the prefix *wo-* to the stem *man*). As we see later, such compounding is not isolated in Ngamambo.

The facts discussed from (36) to (38) have led us to the N-A Concord Generalization which accounts for why, in spite of appearances, Class 1 in our classification of the Ngamambo nouns (cf. Table 3), for example, should be seen to bear an entirely covert prefix. However, there seems to be a real objection to the rule. As we have seen earlier, Ngamambo nouns include plural nouns with the prefix **mɨ-** like those shown in (40e,f) repeated here in (51) among others – the definite article with the concord **mb-** is added to show that these take to the rule, and for other reasons that we see later.

(51) with the adjective 'cold'

a.	**míŋí? ɨʒû mbe**	/ ***míŋí? ʒù mbe**	the cold ropes
b.	**mɨ̀pfíŋàm ɨʒû mbe**	/ ***mɨ̀pfíŋàm ʒù mbe**	the cold pigs
c.	**míɳɔ́p ɨʒû mbe**	/ ***míɳɔ́p ʒù mbe**	the cold worms
d.	**mítɔ́ ɨʒû mbe**	/ ***mítɔ́ ʒù mbe**	the cold intestines

The concern thus is that there is a class of nouns seemingly with the same prefix, which do not follow the rule, what makes them look like exceptions. As seen in (52), they unexpectedly disallow the H-form attributives and predict the absence of an overt prefix.

(52) with the adjective 'cold'

a.	***míŋíp ɨʒû mbe**	/ **ømíŋíp øʒù mbe**	the cold water
b.	***mívút ɨʒû mbe**	/ **ømívút øʒù mbe**	the cold oil
c.	***mítsə̂n ɨʒû mbe**	/ **ømítsə̂n øʒù mbe**	the cold urine
d.	***míʃí ɨʒû mbe**	/ **ømíʃí øʒù mbe**	the cold tears

e. ***mɨnôʔ ɨʒû mbe** / **ømɨnôʔ øʒù mbe** the cold wine
f. ***mɨfí ɨʒû mbe** / **ømɨfí øʒù mbe** the cold pus
g. ***mɨmát ɨʒû mbe** / **ømɨmát øʒù mbe** the cold spittle
h. ***mɨfɔ́m ɨʒû mbe** / **ømɨfɔ́m øʒù mbe** the cold fat
i. ***mɨzɛ̂n ɨʒû mbe** / **ømɨzɛ̂n øʒù mbe** the cold vomit
j. ***mɨwà!ŋ ɨʒû mbe** / **ømɨwà!ŋ øʒù mbe** the cold pap

Note that this would only be an exception if the syllable **mɨ** on the examples is actually a prefix (similar to the one in (51)). Given our argumentation so far, let us say that, like in the cases in (36) to (38) above, this prefixlike syllable too is spurious. This would mean that some occurrences of **mɨ** are a prefix, while others are not.

It is important to observe that the examples in (52) are all liquids and do not exhibit a singular-plural gender (cf. Table 5 and the preceding exemplification in (34) where they are shown as gender nouns in Class 11). As a result of their gender status, we cannot demonstrate the lack of an overt singular prefix on them by means of comparing their plural forms such that an overt plural prefix may be seen to precede **mɨ** instead of replacing it, as we did for the examples in (36) and (38). We cannot also use their concord consonant as a test, since they mark concord with the same bilabial consonant sequence /mb/ as the genuine cases exemplified in (51). In this light, one may be tempted to place the two sets of nouns in the same class; however, our diagnostic, the N-A Concord Generalization (in (42)) requires them to be in separate classes, one with the overt prefix **mɨ-** and the other with a covert prefix.

In the Noun Class System of Ngamambo, therefore, there are two options for the nouns in (52). They could be placed in a class of nouns without an overt prefix but which mark concord with the bilabial consonant sequence /mb/ like those in (53) below.

(53) a. **øbɔ́ mbe** the hands
b. **øwuk mbé** the feet
c. **øtáßí mbé** the shoes
d. **øɣɨ mbé** the things

The problem with this option, however, is that while the examples in (53) are plural nouns, it does not look natural to consider those in (52) to be plural. Consider (54) below, where the N-A Concord Generalization applies to the nouns in (53) in both singular and plural.

(54)	a.	**ɜbɔ́ ɜʒû ze**	the cold hand	/	**øbɔ́ ɨʒû mbe**	the cold hands
	b.	**ɜwuɣ ɜʒû ze**	the cold foot	/	**øwuk ɨʒû mbe**	the cold feet
	c.	**ɜtáß ɜ́ʒû ze**	the cold shoe	/	**øtáß ɨ́ʒû mbe**	the cold shoes
	d.	**ɜɣɨ ɜʒû ze**	the cold thing	/	**øɣɨ ɨʒû mbe**	the cold things

The second option, which should therefore stand, is for the nouns in (52) to stand on their own as a separate class of liquids (seen as Class 11) without an overt prefix as

predicted by the N-A Concord Generalization. That is, they are neither put together with the nouns in (51) (seen as Class 8) with the prefix **mí-** nor with those in (53) (seen as Class 4) without an overt prefix but with the concord **mb**. The question we are now left to ponder over is how a natural class of nouns, in this case liquids, can all begin with the same syllable, yet the said syllable tends out not to be a class prefix. Like in the cases in (36) and (38) above, we can again suggest that members of this class are actually derived from one particular base word. Since water is a universal solvent, let us assume that the word for 'water' in (52a) is the base. Being a disyllabic word, we can then consider that the initial syllable is not a prefix but part of the stem – a disyllabic stem with a non-overt class prefix. Thus, looking at the semantic content of the class, we can attempt to find a coherent semantic network in the derivation of the other words as in the illustrations in (55).

(55) a. **mɨɲíp** water + **ɜnô?** raffia palm = > **mɨɲípɜnò?** raffiapalm water
= > **mɨnô?** wine

b. **mɨɲíp** water + **ɨzèn** to vomit = > **mɨɲípzèni** vomited water
= > **mɨzên** vomit

c. **mɨɲíp** water + **ɨtsèn** to urinate = > **mɨɲíptsèni** urinated water
= > **mɨtsên** urine

d. **mɨɲíp** water + **ɨfɔmbɨ** to glitter = > **mɨɲípɨfɔmbɨ** glittering water
= > **mɨfɔ́m** fat

e. **mɨɲíp** water + **ɨmèt** to swallow = > **mɨɲípɨmèt** swallowing water
= > **mɨmát** saliva

That is, in (55a) for example, the word for 'water' (as what is most common) is merged with the word for 'raffia palm', which is the most common type of palm in the Grassfields, to loosely obtain the term 'raffia palm water' or 'water from the raffia palm' which translates into 'wine' – traditionally, what is known in the Grassfields as 'wine' is a type of juice extracted from the raffia palm tree. We can then say, historically, that the word for water has been reduced to just the initial syllable in its combination with other words to derive the names of other forms of liquid.[11] Recall that this is the same compounding process discussed earlier for the kinship examples in (36/50).

[11] Since the initial syllable of the nouns in (52) starts with a (bilabial) nasal, an alternative hypothesis might be to assume that the nouns in this class originate as single syllable stems that begin with a prenasalized consonant each, caused by a historical noun class prefix which has dropped, and that the prenasalization has developed into the syllable **mɨ**, the phonetic quality resulting from the fact that the class shares similar characteristics (like the concord consonant **mb**) with the class (Class 8) that takes **mɨ** as a class prefix. The likelihood that this is the case is supported by the observation that some of the nouns have present day dialectal variants that occur without the initial prefixlike syllable (as with **ʃí** (for **míʃí**) 'tears', **tsên** (for **mítsên**) 'urine', and **nô?** (for **mínô?**) 'wine'). Further support for this possibility is obtained from Lojenga's (1994) suggestion (with examples from Duruma and Giryama, all Kenyan languages) that prenasalization can be the effect of a certain noun class prefix (Class 9, 10, or 11) on a noun stem beginning with a consonant. Our diagnostic shows that Ngamambo Classes 9 and 10 do not take overt prefixes. Thus, if Lojenga is right, then we have to assume that a historical class 11 is responsible for the prenasalization, and that the nouns in (52) are actually Class 11 nouns.

In summary, we have established the N-A Concord Generalization, and with its help, we have been able to verify the state of the noun prefixes in Ngamambo in a bid to authenticate the proposed Noun Class System. Specifically, we have seen that while some classes take overt prefixes, there are others which actually do not. Finally, we have seen that although some nouns in the language appear to take overt prefixes, in actual fact, they do not.

3. RULING OUT A and H (1976)

In Section 1, I have given an overview of A and H's (1976) proposed NCS of Ngamambo (see their discussions from page 25 to 28). As I pointed out in that section, there are a number of discrepancies between that work and the present one that form part of the basis of the latter. In this section, I discuss the differences between the two proposals, and demonstrate why the present system is to be preferred over that of A and H.

3.1 DISCREPANCIES

As the reader can see, it is clear by now that the present investigation leads us to a noun class system of Ngamambo that is quite distinct from that of Assongwed and Hyman. To start with, with the exclusion of locative classes, the noun classes in A and H's system come up to eleven, whereas I have established thirteen. The reason for this is that, in A and H, there are two instances where, in each case, two distinct classes are analyzed as a single class, to which I return in Section 3.2.

Besides, while A and H consider that classes 1, 2, 9, and 10 can be analyzed to take two different prefixes each an overt prefix for some nouns and a covert one for others in the same class), I posit one prefix per each of these classes, which is either covert or overt. In the whole classification, I have identified five covert prefixes and eight overt ones.

Furthermore, the present system has more (singular-plural) gender pairs – twelve in all, than the A and H system with just seven, and while A and H suggest only one single (unpaired) gender class, I have established up to seven.

Apart from differences in the classification and gender pairing, there are phonetic differences between the two proposals with respect to the quality of the noun prefixes on which the classification is mainly based. To start with, A and H's classification includes the prefixes **ʉ-** for their Classes 3 and 8, and **ʌ-** for classes 6 and 7. However, as Table 1 and the illustrations in (1-3) above show, these central high rounded and the back mid-low vowels are not attested in the language, from the present perspective; the prefixes I observe on the relevant nouns are rather the central high unrounded vowel **ɨ-**, and the central mid-low unrounded vowel **ɜ-**, respectively.

Besides, their Class 13 is said to takes the prefix **lə-**. The present work also does not find such a prefix; instead I come up with the prefix **rɨ-** for nouns that are said to take **lə-** in the A and H system. Note the phonetic similarity between the two: the initial consonants are both alveolar.[12] Apart from their Class 13, the schwa also occurs in their

[12] In addition, it is worth noting that as the consonant chart shows, the language clearly exhibits both the alveolar trill and the lateral as in the sentence in (i), and from observation, I have not come across any informant, old or young, who produces the lateral in the place of the trill.

(i) **Lùm we lòʔô rɘ́kɔ́.**
NAME TNS stubborn too
Lum is too stubborn.

Classes 6 and 19 prefixes **mə-** and **fə-**, respectively. From the present look, the schwa is not attested in the language as the vowel chart (Table 1) shows. Instead, like the case of **lə-**, the vowel that occurs in these two prefixes is the central high unrounded vowel.

3.2 A PREFERENCE FOR THE PRESENT SYSTEM

Following standard assumptions, it is the weaknesses of any given investigation that trigger a reconsideration of the subject matter. I now consider a number of weaknesses that rule out the A and H system and thus give preference to the present one. To start with, in the A and H system, there is illegitimate dumping. For example, all the nouns that begin with **mɨ-** [seen as **mə-** in that system] are dumped into one single class – their Class 6a, and it is not made clear there if this is a singular or plural class. In the present system, I place some of these nouns in plural Class 8 where the syllable **mɨ-** is seen as an overt prefix that marks the plurals of some nouns of Classes 1, 3, and 5. For the rest of the nouns, the initial syllable **mɨ-** is not seen as a prefix – they are a class of water related derivational nouns that take a covert prefix as predicted by the N-A Concord Generalization (also see the derivations in (55)), and are placed in Class 11.

A and H also dump the nouns that begin with **rɨ-** [seen as **lə-** in their system] into another single class – Class 13. In the present system, I share them into two classes with respect to their concord properties. Some are placed in Class 7 with the concord consonant **z-** (see Tables 3 and 5) and include single gender nouns as in (31) and some paired gender ones as in (24). Others (a majority) are placed in Class 13 with the concord consonant **t-** and include the plural forms of some nouns of Classes 5, 7, 9, and 12.

The analyses of these two groups of nouns, that is, those that begin with **mɨ-** and those with **rɨ-**, simply as two classes instead of the four we have established here, would therefore be seen as a major weakness in the A and H system. The result is that it leads to a NCS of 11 classes instead of 13.

The second main weakness in the A and H system is that as we have seen, A and H consider that classes 1, 2, 9, and 10 can be analyzed to take two distinct prefixes each (i.e., an overt prefix for some nouns and a covert one for others in the same class). We have seen that some nouns in the language do indeed appear to take overt prefixes given their uniform beginnings, whereas in actual fact, they do not. These include some (human) nouns of gender 1/2 as seen in (36) above which all begin with the approximant /w/, and some of gender 9/10 which begin with a nasal thought in A and H (1976) to be alternative class prefixes. By claiming (p. 25) that a few nouns in gender 1/2 have as prefix **w-**/**b-**, A and H thus fail to account for the presence of **mb-** on some plural Class 2 nouns. This lack of precision therefore makes the A and H system less credible. On the bases of the predictions of the N-A Concord Generalization, we can tell, as in the present system, that there is only one prefix for each of these classes, which is either covert or overt. To be specific, we have identified Class 1 as a null prefix while Class 2 takes **mbɨ-**, and gender 9/10 to be null/null.

The lack of certainty in the previous work is actually seen in the doubts expressed by A and H themselves. With respect to nouns of Class 1 and gender 9/10 which, as we have seen take covert prefixes, they point out hesitantly (p. 26) that "any noun which does not have a prefix can apparently be preceded by the vowel **ù-**". Although they go on to suggest that this may be the result of a historic noun class prefix that has dropped, the

hesitation in itself actually suggests a lack of credibility. This certainly explains why, in their own analysis, A and H conclude (p. 26) that the imposed vowel "does not normally exert any tonological effect".

They further express a lack of certainty in their analyses when they claim, also with hesitation, that some class 3 nouns like **ʉkón** [i.e., **ɨkón** for the present work] 'bed', **ʉɲɔ́t** [i.e., **ɨɲót**] 'body', and **ʉtám** [i.e., **ɨtám**] 'thigh' "can apparently take their plural in either class 13 or in class 6a", corresponding to the prefixes **lə́**- or **mə́**- [i.e., **rí** or **mí**].

Finally, their Classes 2 and 6a are made to take the same prefix with no difference in number and concord. The difference cannot even be semantic, since both classes include a mixture of nouns each. As we have seen, many of the nouns thought to be members of Class 2 actually do not belong there, and the prefix of Class 2 is actually **mbɨ**- with the consonant cluster including the stop /b/ – recall the observation by A and H that some nouns of Class 2 take the prefix **b**-, which has turned out to be a phonological reduction from **mbɨ**-.

4. CONCLUSION

This paper has reacted to A and H (1976), in their proposed noun class system for Ngamambo. In that work, A and H claim that the language exhibits eleven noun classes, with seven singular-plural gender pairs and one single class gender. However, the present consideration reveals that the noun class system of Ngamambo is rather more sophisticated than previously thought. A number of weaknesses in A and H's classification have therefore been outlined, and it is shown (1) with the help of the attributive form of the Ngamambo adjective (see the N-A Concord Generalization in (42) above) that some nouns in the language appear to take overt prefixes, whereas in actual fact, they do not; and (2) that, with the exception of the locative classes and the infinitive noun class marker, Ngamambo has a noun class system of thirteen classes, eight of them with overt prefixes and five with covert prefixes, and twelve singular-plural gender pairs and seven single class genders.

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APPENDIX

NCS AND GENDER PAIRS OF NGAMAMBO BY A and H (1976)

THE NOUN CLASSES WITH CONCORD AND EXAMPLES

Class	Prefix	Concord	Example
1 (Sg.)	**ø-, (w-)**	**w**	**øfɔ̀n** ‘chief’, **økánʌ́** ‘monkey’, **øjí** ‘thief’, **wán** ‘child’, **wʌ̀t** ‘person’
2 (Pl.)	**mə-, (b-)**	**mb**	**məfɔ̀n** ‘chiefs’, **məjí** ‘thiefs’, **məkànʌ́** ‘monkey’, **bə̀t** ‘people’
3 (Sg.)	**ʉ-**	**w**	**ʉbɔm** ‘egg’, **ʉsɔŋ** ‘tooth’, **ʉɲí?** ‘rope’, **ʉnê** ‘bridge’, **ʉtɔ́** ‘intestine’, **ʉywíní** ‘market’, **ʉkə̂n** ‘message’,
6 (Pl.)	**ʌ-**	**z**	**ʌbɔm** ‘eggs’, **ʌsɔŋ** ‘tooth’
6a ---	**mə-**	**mb**	**məńnê** ‘bridges’, **məywíní** ‘markets’, **məɲí?** ‘ropes’, **mətɔ́** ‘intestines’,
7 (Sg.)	**ʌ-**	**z**	**ʌbó** ‘arm’, **ʌwɔk** ‘foot’, **ʌtám** ‘trap’
8 (Pl.)	**ʉ-**	**mb**	**ʉbó** ‘arms’, **ʉwɔk** ‘feet’, **ʉtám** ‘traps’
9 (Sg.)	**ø-, (N-)**	**z**	**mbàp** ‘giant rat’, **gwí** ‘goat’
10 (Pl.)	**ø-, (N-)**	**t**	**mbàp** ‘giant rats’, **gwí** ‘goats’
13 (Pl.)	**lə-**	**t**	**lədʒì** ‘flies’, **ləkə̂n** ‘messages’, **lətsɔ̂k** ‘mouths’, **lənʌ̀n** ‘bird’
19 (Sg.)	**fə-**	**f**	**fədʒì** ‘fly’, **fənʌ̀n** ‘bird’

THE NOUN CLASS GENDER-PAIRS