Interspeaker Variation in Noun Class Realization in Medumba, a Grassfields Language

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I. Introduction

1.1. Between Bantu and Kwa

The research presented in this paper was inspired by Jeff Good's 2012 paper on the range of noun class systems within the Niger-Congo family, in which he discusses a variety of languages whose noun classes may be considered more or less robust. Good considers the issue of how "Kwa" type languages—those with no trace of noun class morphology—arrived at their current state. Contrastively, in Narrow Bantu and other smaller groupings, there are many languages with the full range of inflectional marking, including classes of singular/plural marking (noun form pairs), concord marking and agreement.

For example, in Fongbe, a Kwa-type language, there is no noun class morphology or concord marking of any kind, while in Chichewa, a Bantu language, noun class morphology is present on the noun, and the verb contains agreement with the noun form class of the subject nominal. This contrast between Kwa and Bantu types can be seen in Examples 1 and 2 below:

(1) Fongbe (Lefebvre & Brousseau 2002, cited in Good 2012, p. 294)

Kɔ̀kú	sɔ́	ɑ̀sɔ́n	ɔ́	nɑ́	Àsíbɑ́
Koku	take	crab	DEF	give	Asiba

Koku gave the crab to Asiba

(2) Chichewa (Alsina & Mchombo 1993, cited in Good 2012, p. 295)

Chitsîru	chi-nɑ-gúl-ír-ɑ́	atsíkɑ́nɑ	mphɑ́tso.
7.fool	7s-PST-buy-APPL-FV	2.girl	9.gift

The fool bought a gift for the girls

Understanding this range involves taking three components into account: (a) the marking of noun classes on nouns, (b) the concord and agreement morphology linked to noun classes, and (c) the pattern of assignment of nouns to different noun classes. The Kwa-type systems may seem to be the result of so-called "drift," a gradual loss of noun class system features like those found in Narrow

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Bantu. But according to Good, a deeper understanding requires that we examine how these changes may be realized on different dimensions of the system and to different degrees. As Good notes, "what is striking is the apparent lack of interdependence of pieces of the system – class marking, class assignment, concord, and word shape can change, but a recognizable Niger-Congo system can survive" (Good 2012: 322).

In this paper, we present results of an investigation of Medumba [byv] (also called Bangangté), a Mbam-Nkam Grassfields language spoken in and near the Cameroonian town of Bangangté, in Cameroon's Francophone West Region but geographically very close to the Anglophone North- and South-West Regions bordering Nigeria. Medumba exhibits some noun class morphology in agreement and concord markings, but only in certain grammatical structures, morphologically situating it between the Kwa-type and Bantu-type systems.

Early research on Medumba was published by Voorhoeve (1965, 1967, 1968, 1969, 1971) and Hyman (1970). Good (2012) cites Voorhoeve's (1968, p. 589) description of "a situation in the Bamileke language Bangangte [Medumba]… where class marking appears to have become so detached from concord that one cannot speak of a mismatch …but rather of class marking constituting **a separate system** which 'seems to operate quite independently from the concord system'"… (Good 2012: ftnt.22). Using recent speaker-provided data, this study aims to provide an updated account 40 years after Voorhoeve's description. To what extent are the noun class forms and concord pairings aligned? Do they function as independently as Voorhoeve found in 1968? To what degree does the system appear to be intact?

1.2. Medumba's noun classes

1.2.1. Noun form pairs

The first dimension of Medumba's noun class system is a consistent morphological distinction between the singular and plural noun forms. Medumba exhibits multiple pluralization strategies, one of which derives from the Bantu 1/2 noun class forms used mostly for human nouns. One instance of this pair appears in Example 3 below:[1]

(3)

mɛ́n	**bʉ́n**
child	*children*

Following Voorhoeve's (1968) convention of using "F" (for *formative*) to indicate the root, we will refer to this class as the **mF/bF** noun class pair, or the 1/2 form.

A different strategy is seen in the word for "chief(s)," **ŋɣvə̀n** (sg.) **fə̌n-fə̀n** (pl.), where a nasal consonant before the root assimilates to the place of articulation of the adjacent consonant as well as causing that consonant to become voiced, while the plural form is the root reduplicated.[2] Using the F convention, this formation is represented as NF/FF.

Pre-nasalization is the most productive pluralization strategy, as seen in the word "bird(s)," **sáŋ/nzáŋ** (F/NF), and the first consonant of the root is voiced in this context. Other strategies are marked by what is essentially a null prefix, though the singular and plural forms may both have a pre-nasal, e.g. "dog(s)," **mʙʉ́/mʙʉ́** (NF/NF), or they may both have no pre-nasal, e.g. "friend(s)," **ʃúnə́/ʃúnə** (F/F).

[1] Transcriptions follow IPA conventions. High tones are represented with acute accents; low tones are represented with grave accents. Rising tonal contours on a single syllable are transcribed with a caron (as in fə̌n fə̀n).

[2] In cases of reduplication, prenasalization is always present in the singular form but is not always reduplicated in the plural form. Because of the relatively small number of nouns that use reduplication in plural formation and the fact that they take the same concord marking (see Fig.3), we have grouped them together for this paper.

Figure 1: Noun form pairs in Medumba

	Noun Form Pair	Singular	Plural	Gloss
A	mF/bF	mɔ́ŋkʉ́ʔ	ʙwɔ́ŋkʉ́ʔ	*small child*
B	F/NF	sáŋə	nzáŋə	*bird*
C	NF/NF	mʙʉ́	mʙʉ́	*dog*
D_1	NF/FF	ɱvə̀n	fə̌n fə̀n	*chief*
D_2	NF/NFNF	ndʒʉ́p	ndʒʉ́p ndʒʉ̀p	*V.I.P.*
E	F/F	ʃúnə́	ʃúnə́	*friend*

1.2.2. Concord marking pairs

The second dimension of the system is the pattern of singular and plural concord markers. In Medumba, these are marked only on possessive pronouns following the noun. In this paper, we will discuss only first person singular possessors, but other person-number combinations follow the same general pattern. Example (4) shows that "child" and "chief" take the same concord markers:

(4)

Singular	**mɛ́n ɔ́m**	**ɱvə̀n ɔ̀m**
	my child	*my chief*
Plural	**bʉ́n tʃɔ́m**	**fə̌n fə̀n tʃɔ́m**
	my children	*my chiefs*

There are two options for singular concord, null (Ø) and **s-**, and two for plural, **tʃ-** and **m-**, and each singular option can be combined with each plural option, resulting in four concord marking pairs.

Figure 2: Concord marking pairs in Medumba[3]

	'my [noun]'	'my [nouns]'
1	**Ø-ɔ́m**	**tʃ-ɔ́m**
2	**Ø-ɔ́m**	**m-ɔ́m**
3	**s-ɔ́m**	**tʃ-ɔ́m**
4	**s-ɔ́m**	**m-ɔ́m**

Set 3 above, **s-ɔ́m/tʃ-ɔ́m**, appears to be unattested in Voorhoeve's 1968 data. This set may not have existed in the noun class system at that time, or it may not have been grammatical for the speaker or speakers interviewed.

Medumba noun class morphology therefore has two components, each with 2 subparts: the singular and plural noun class forms Nom_{SG}/Nom_{PL}, and the singular and plural concord markers $Conc_{SG}/Conc_{P}$. For example, the word 'bone' is realized with the Set B (F/NF) noun class pair and the Group 4 (s-/m-) concord marking pair:

(5)

Nom_{SG}	Nom_{PL}	$Conc_{SG}$	$Conc_{PL}$
vɔ́gə́	**m-vɔ́gə́**	**vɔ́k s-ɔ́m**[4]	**ɱ-vɔ́k m-ɔ́m**
bone	*bones*	*my bone*	*my bones*

[3] As with many phenomena in Medumba, noun class morphology is further complicated by tone. In this case, the null-prefixed **ɔm** possession marker may surface with a low or high tone, as indicated throughout this paper. This may depend on dialect or even on the speaker, but for now only segmental differences will be discussed.

[4] In rapid speech, a word-final schwa is often deleted before a consonant, yielding vɔ́k s-ɔ́m rather than vɔ́gə́ s-ɔ́m.

1.2.3. Assignment of nouns to classes

The final dimension of the noun class system is the assignment of particular words to different noun classes, thus determining what noun class form pairs they should have. While some Narrow Bantu noun class systems have a recognizable semantic basis for at least some noun class assignments (e.g. humans, animals, body parts, and objects of particular dimensions are sometimes proposed as the basis of categories), exceptions are the rule, even in the most semantically motivated systems (Van De Velde 2006). Medumba has very little semantic coherence or motivation in its assignment of nouns to inflectional groups. For example, the Medumba noun class system retains the primarily human contents of Bantu 1/2 class (Row A in Figure 1), but human nouns appear in all five of the noun form pairings, A-E, in Figure 1.

2. Methods

The study presented here included 76 native Medumba words and 56 loan words produced by two native speakers of Medumba. The loan words originate in French and English, but we do not know the path by which they entered Medumba. The study of both native and loan words is important to the investigation of how noun class morphology changes over time and adapts to the effects of pervasive language contact.

The study's consultants, Ariane Ngabeu (hereafter Speaker 1) and Ange Lendja (hereafter Speaker 2) are both native speakers living in Cameroon. Both hold doctoral degrees and academic positions and are actively involved in the ongoing Medumba preservation effort. These consultants speak two distinct dialects of Medumba, but there is no strong evidence at this time suggesting that their dialect differences contribute to this study's findings. Each was interviewed separately.

3. Results

3.1. Mapping of noun form pairs to concord pairs

In a canonical, maximally coherent noun class system, one might expect that for each set of noun form markers, there would be a single set of concord markers. In other words, if we have five distinct sets of noun class markers (mF/bF, F/NF, etc.) we might expect each one to have its own set of concord markers. As shown in Figures 1 and 2, Medumba has five noun class marking pairs, and four concord pairs. How will these map onto one another?

According to our data, Medumba's noun form and concord marking pairs do not map to one another in a one-to-one pattern, nor anything close to a one-to-one pattern. An irregular many-to-many mapping pattern between noun form pairs and concord marking pairs is attested, as shown in Figure 3:

Figure 3: Mapping of noun class marking pairs to concord marking pairs

Nom_{SG} Nom_{PL} Forms		Attested corresponding concord marking pairs			
A	**mF–bF**	1 ɔ́m/tʃɔ́m			
B	**F–NF**	1 ɔ́m/tʃɔ́m	2 ɔ́m/mɔ́m	3 sɔ́m/tʃɔ́m	4 sɔ́m/mɔ́m
C	**NF–NF**	1 ɔ́m/tʃɔ́m	2 ɔ́m/mɔ́m		
D	**NF–(N)F(N)F**	1 ɔ́m/tʃɔ́m			
E	**F–F**	1 ɔ́m/tʃɔ́m			

As shown in the table above, Set B (the root/prenasalization noun form pair F/NF) may map to any of the concord marking pairs. The **ɔ́m/tʃɔ́m** concord pair (1) may map to any of the possible noun form pairs. Set C (NF/NF) maps to both **ɔ́m/tʃɔ́m** and **ɔ́m/mɔ́m**. Sets A, D and E, the remaining noun form pairs, only appear with one concord marking pair: **ɔ́m/tʃɔ́m**.[5] As Figure 2 is based on our 76-word sample, it may be that even more mappings are available.

[5] Note that this table represents all cases of reduplication in noun form pair D (NF/(N)F(N)F). This category includes both NF/FF and NF/NFNF pairings.

The data presented here suggest that Voorhoeve's observation of the noun form and concord systems functioning independently still stands with contemporary data. The pieces of the Medumba noun class system are loosely coupled at best. Does this mean that the system may be drifting towards dissolution, or is this a case like those that Good discusses, where a recognizable noun class system persists in spite of loose coupling between morphological components of the noun class system? One way to investigate this is to look more closely at the type and degree of interspeaker variation. To what degree do speakers differ in their judgments, and what parts of the system show the greatest degree of divergence?

3.2. Interspeaker variation among native words

Given the complexity apparent in Figure 3, it is interesting to investigate the level of variation across speakers. Does the many-to-many mapping system give rise to frequent interspeaker mismatch in choice of noun form or concord marking pairs?

Figure 4 shows the rates of interspeaker consensus on singular and plural noun formation and on concord markings, respectively, among the 76 words of apparently local origin elicited for this study. These presumed "native" words are those without obvious origin in a European language. For both noun formation morphology and for concord morphology, there are three initial possible states: the two speakers agreed on both the singular and the plural form; they agreed on one of the two forms; or they agreed on neither the singular nor plural.

Figure 4: Interspeaker consensus: 76 native words

	Match on sg. and pl.	Match on sg. OR pl.	Match on neither
Noun form pairs (Fig.1)	88%	12%	0%
Concord marking (Fig.2)	67%	31%	3%

Clearly, in the concord marking morphology, there is somewhat less consensus between speakers. But aside from revealing this difference between the two morphological subsystems, Figure 4 is not very informative. It fails to show exactly where the variation is likely to occur. Consider the following examples:

(6) /ʃúnə́/ (friend)

	Speaker 1	Speaker 2
friend	ʃúnə́ (F)	ʃúnə́ (F)
friends	**nʃúnə́ (NF)**	**ʃúnə́ (F)**
my friend	ʃún ɔ̀m	ʃún ɔ̀m
my friends	nʃún tʃɔ́m	ʃún tʃɔ́m

(7) /ŋwí/ (machete)

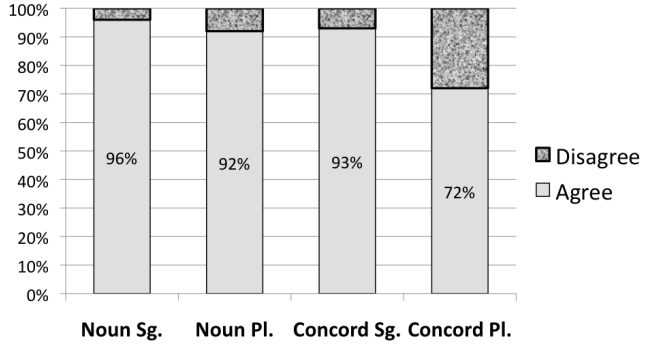
	Speaker 1	Speaker 2
machete	ŋwí (NF)	ŋwí (NF)
machetes	ŋwí (NF)	ŋwí (NF)
my machete	ŋwí ɔ̀m	ŋwí ɔ̀m
my machetes	**ŋwí tʃɔ́m**	**ŋwí mɔ́m**

In both examples given above, only one dimension out of a possible four differs between the two speakers. But the extent of interspeaker variation here depends on how one defines the variable in question: is it defined as two variables: singular and plural formations, or is the variable the singular-plural pairing? If singular and plural formations are separate variables, the speakers disagreed on one in four dimensions in Examples (6) and (7) above; if a noun form *pair* or a concord marking *pair* is the

variable, they disagreed in one of two possible dimensions, producing a discord rate of 50% in these two cases. We must examine the data more closely to determine precisely where interspeaker mismatches reside. Figure 5 below shows consensus rates across all four possible points of variation among native words.

As shown in Figure 5, the two speakers agreed in almost all cases on the singular noun form, the plural noun form, and the singular concord marking. The consensus is markedly less frequent in the plural concord marking dimension. For native words, this is apparently the weak spot in the system.

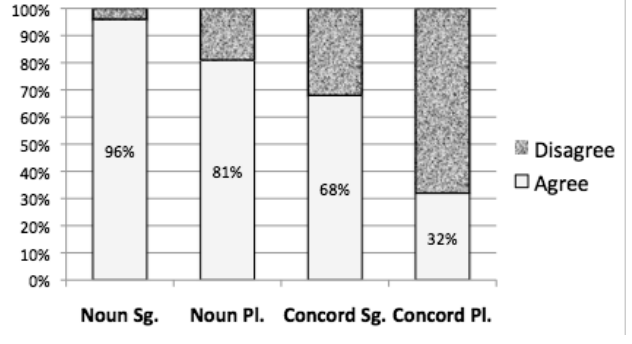
Figure 5: Interspeaker consensus rates in native words (N=76)



3.3. Interspeaker variation among loan words

What do we find when we look at loan words? In a post-colonial language contact situation, a large influx of loan words introduces a morphological challenge: how do speakers treat recently borrowed words? Figure 6 below shows the rate of consensus between speakers for loan word morphology.

Figure 6: Interspeaker consensus rates in loan words (N=57)

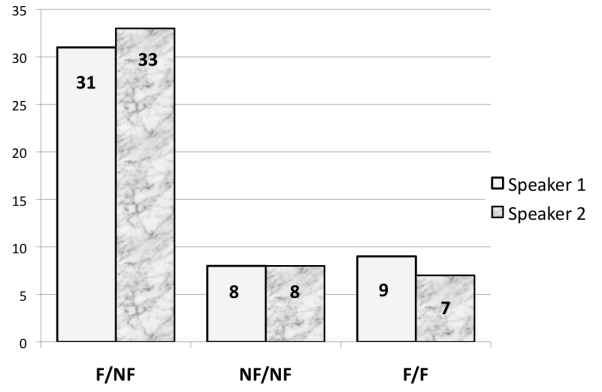


When loan words are surveyed, the interspeaker consensus rates in these four dimensions change dramatically, as seen above. The speakers agreed as often on the singular noun forms of loan words as they did on the singular noun forms of native words, but disagreed far more often in the other three categories. As seen in Figure 6 above, the interspeaker consensus rate drops steadily from one category to the next.

An additional component of this study is to determine not only *when* speakers are more likely to agree on noun class morphology, but also *what forms* they are most likely to use. Are there some forms that are used consistently with strong interspeaker reliability while other forms show low rates of consensus? Or are the patterns of disagreement essentially random? Investigating the frequency of interspeaker morphological features among loan words allows insight into the relative productivity of certain noun class morphology.

We can explore this issue by examining loan words: which features are being assigned to lexical items that are more recent additions to the language? Only three of the five noun form pairs occurred in the set of 57 loan words we used: Set B (F/NF), Set C (NF/NF), and Set E (F/F).

Figure 7: Frequency of noun form pairs among 48 loan words, by speaker



Notice that none of the loan words carries the morphology of noun form Set A, the Bantu class 1/2 mF/bF pairing. In contrast, the F/NF pair was by far the most common choice for both speakers.

Among our set of 76 native words, only 6 exemplify the mF/bF noun form pair. All are nouns that denote humans (child, boy, person, woman, young man, and young woman.) In contrast, there are 31 native Medumba words that speakers assigned to the F/NF noun form grouping, which span the entire range of animacy. Figure 8 below shows the distribution of noun form pairs among native words.

Figure 8: Frequency of noun form pairs among 76 native words, by speaker

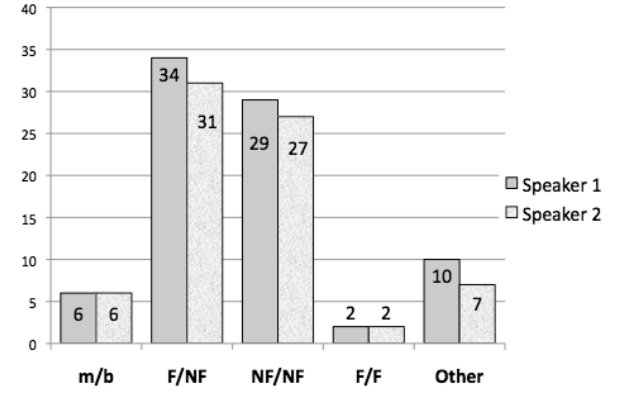


Figure 9: Native words in the F/NF noun form set[6]

Human	**Animate non-human**	**Body part**	**Inanimate**
husband	cat	face	house
widow	worm	neck	law
	mouse	hand	profit
	bird	foot	pineapple
		…	…
(2 total)	(4 total)	(7 total)	(18 total)

[6] The semantic categories used here are derived from the reconstructed semantic categories of the Proto-Bantu noun class system (Demuth 2000, p. 275). Due to our limited data, Demuth's 15 categories were collapsed into the four shown in Figures 8, 11 and 12.

The most semantically consistent noun class pairing (mF/bF) is the least productive, while the most semantically diverse noun class pairing (F/NF) is the most productive. This is consistent with one of Good's observations, which proposes that non-semantically-motivated, seemingly arbitrary assignment of nouns to noun classes may actually add to the stability of the system. Good states:

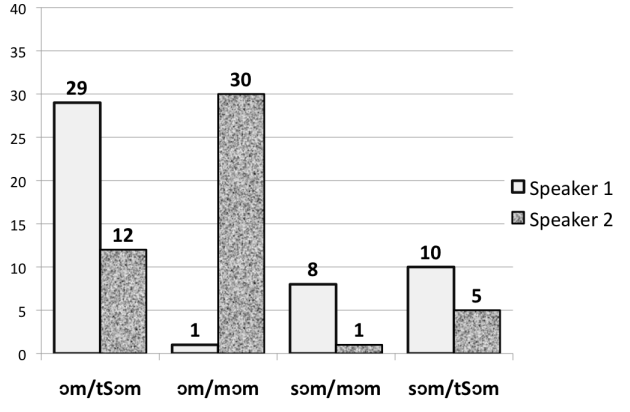
"…shifting many nouns from, say, one plural class to another… need not correlate with any kind of semantic change that would impede communication. It seems likely that the largely formal nature of these classes is an important factor in allowing this kind of 'instability' to be a stable feature of the language" (2012: p. 25).[7]

In other words, although semantic arbitrariness may at first appear to be a sign of weakness in the noun class system, in fact it may contribute to the system's resilience. The unpredictable mapping between semantic category and noun class form allows for productivity of F/NF, thus perhaps allowing for greater interspeaker convergence.

Interspeaker variation in concord markings is more pervasive. Figure 6 shows a 32% mismatch between speakers for the singular concord marking and a 68% mismatch for plural concord marking. We examined the frequency of particular concord marking pairs for loan words just as we did for noun form pairs.

Figure 10 below shows that Speaker 1 showed a marked preference for the **ɔ́m/tʃɔ́m** concord pair, while Speaker 2 was far more likely to use **ɔ́m/mɔ́m**. The study then examined the speakers' frequencies of concord marking pairs among native words to determine if these preferences emerged in both data sets. If speakers were to show strong preferences for certain noun class morphology in native words, it might make sense that they would extend these preferences to loan words as well. Figure 11 shows the frequency of each concord marking pair, by speaker, in the native word data set.

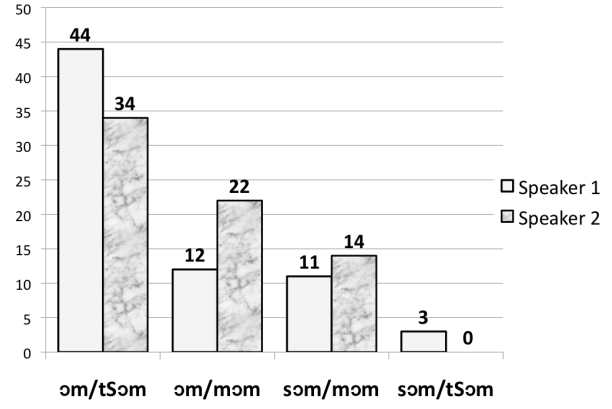
Figure 10: Frequency of concord pairs by speaker (48 loan words)[8]



[7] On the other hand, it cannot be the case that this is invariably the integration strategy for loan words. On the question of what motivates the strategies by which loan words are integrated into noun classes, Jeff Good (p.c.) points out to us that while it is true that in some Niger-Congo languages, loan words are integrated into the same semantically 'open' or unrestrictive noun class, there are other cases where a semantically restrictive class is used because of a formal issue. For example, there are languages in which loan words—including inanimates—are incorporated into one of the few classes with a coherent semantic core, Class 1/2, the class that includes many human nouns. The reason may be that the loan words are formally similar to Class 1a nouns (which include proper names): those lack a prefix. Therefore these loan words, which also lack a prefix as they enter the language, are rendered as singular Class 1a and are pluralized as Class 2 words. For further discussion of a case of loan word integration into Class1a/2 with a different interpretation, see Van De Velde 2006.

[8] The number of words in Figure 9 and Figure 10 do not include words with only singular or plural forms, which will be further discussed in Section 4.

Figure 11: Frequency of concord pairs by speaker (70 native words)



To some extent, these speaker preferences emerge among native words as well, but notice that the frequencies of the concord pairs are ranked the same for both speakers in Figure 11, which was not true in the loan word results in Figure 10. That is, in Figure 11, both speakers produced **ɔ́m/tʃɔ́m** most often, followed by **ɔ́m/mɔ́m**, followed by **sɔ́m/mɔ́m**, and **sɔ́m/tʃɔ́m** least often.

Despite the parallel ordering of concord marking frequencies, the interspeaker variation depicted here suggests a major disruption to Medumba's noun class system. However, recall Good's observation regarding non-semantically-motivated noun class assignment and the stability of a morphological system. To explore this, we examined the semantic properties of the nouns that both speakers placed in the two most productive concord marking sets:

Figure 12: Native words in the **ɔm / tʃɔm** concord set

Human	**Animate Non-human**	**Body Part**	**Inanimate**
chief	cat	heart	gun
child	chicken		house
husband	dog		field
important person	fly		fire
…	…		…
(16 total)	(10 total)	(1 total)	(17 total)

Figure 13: Native words in the **ɔm / mɔm** concord set

Human	**Animate Non-human**	**Body part**	**Inanimate**
Ø	worm	foot	profit
		hand	sack
		face	gym
		neck	history
			…
	(1 total)	(4 total)	(17 total)

These groups of nouns are quite semantically diverse, similar to the very productive F/NF noun form pairing. Concord marking pairs, then, may offer another example supporting Good's point about unexpected stability emerging from an apparently unstable noun class system.

Despite interspeaker variation in assignment of nouns to concord marking pairs, there is no morphological overlap between possible singular forms **Ø-** and **s-** and possible plural forms **m-** and **tʃ-**. These distinct markings ensure that singular is not confused for plural or vice versa, even if speakers choose to use different pairs from the concord marking inventory. The resulting lack of ambiguity may contribute to whatever degree of stability the overall noun class system retains.

4. Mass nouns: a final source of variation

The interspeaker variation found in the data might be attributed to language change in progress. However, we have found one additional source that may be inflating the degree of interspeaker variation. These complications are best illustrated through specific examples. Consider the following data. In example (8), a loan word for "light" from English, Speaker 2 declined to produce a plural form of the noun or a plural concord marking. Speaker 1, on the other hand, provided both singular and plural forms of the noun and of the possessive construction.

(8) /látrɨ́/ (light)

	Speaker 1	Speaker 2
light	látrɨ́	látrɨ́
light(s)	**n**dátrɨ́	
my light	látrɨ́ -ɔ́m	látrɨ́ -ɔ̀m
my light(s)	ndátrɨ –tʃɔ́m	

Here, Speaker 2 treats "látrɨ́," as a noun which can take no plural form, whereas Speaker 1 believes it may be singular or plural. The speakers made the same diverging morphological choices for the loan words *gas*, *tea*, *rubber*, and *time*.

Particularly in the domain of loan words that are mass nouns, we can imagine the sources of divergence. Some may closely follow the source language mapping: *light* in English is treated both as a mass noun ("a lot of light") and as a count noun ("three lights"). Some speakers may use a different word for the count noun, as Speaker 2 did in further elicitation on *light*. Therefore, this is not interspeaker disagreement on which noun pair form or concord marker to use. Rather, it is disagreement on how to lexicalize a concept.

Example (9) shows what may be a more subtle effect within native words. Here the word is a native Medumba word, but we see a similar response from Speakers 1 and 2 as we observed with loan words. Speaker 2 treats 'firewood' as a *pluralium tantum*. Speaker 1 may have innovated the singular forms, assimilating this meaning that is inherently plural (many little sticks) into a singular, as some English speakers include a singular of pluralia tantum like *pants*>*pant*, and *scissors*>*scissor*.

(9) /ndʒwɛ́n/ (firewood)

	Speaker 1	Speaker 2
firewood	ndʒwɛ́n	
firewood(s)	ndʒwɛ́n	ndʒwɛ́n
my firewood	ndʒwɛ́n -ɔ́m	
my firewood(s)	ndʒwɛ́n -mɔ́m	ndʒwɛ́n -mɔ́m

Example (10) represents a slightly different kind of interspeaker disagreement:

(10) /tʃáʔá/ (dirt)

	Speaker 1	Speaker 2
dirt	tʃáʔá	tʃáʔá
dirt(s)	tʃáʔá	
my dirt	tʃáʔá -ɔ́m	tʃáʔá -ɔ̀m
my dirt(s)		

When asked to provide various forms of /tʃáʔá/ (dirt), both speakers provided a singular form, but only Speaker 1 provided a plural form. However, when asked to form a possessive construction, both speakers agreed that only a singular form was grammatical (although they differed in tone marking). This reveals a fundamental challenge in the elicitation and documentation process. Speakers may be

induced to provide a word in the context of an elicitation, but may not ever use it in spontaneous speech. So when we interpret the results, it is important to be alert to such elicitation effects.

For these words, then, interspeaker variation lies in the speaker's lexicalization of the noun, rather than in his or her choice of noun class morphology. If we treat these mismatches as independent from the variation in noun class morphology, we can remove data points like Examples 8—10 and see if this has an effect on the overall noun class morphology consensus rates between speakers. Figure 14 shows consensus rates on native words overall (as presented in Figure 5 above), then the rates excluding mass nouns, and then presents the same comparison for loan words (as shown in Figure 6).

Figure 14: Interspeaker consensus on noun class morphology with and without mass nouns

	Native Medumba words (n=76;70)		Loan words (n=56;48)	
	% Match total	% Match w/o mass nouns	% Match total	% Match w/o mass nouns
Noun form sg.	96%	98%	96%	98%
Noun form pl.	92%	92%	81%	96%
Concord sg.	93%	96%	68%	69%
Concord pl.	72%	72%	32%	37%

There is little improvement in interspeaker consensus rates when mass nouns are removed from the native word inventory. A much larger effect is seen when we remove mass nouns from the set of loan words. Figure 14 indicates that when mass nouns are removed from the loan word and native word data sets, singular and plural noun form consensus rates are well over 90%.

5. Conclusion

Though this study's findings are consistent with Voorhoeve's suggestion that the noun form and concord marking systems function independently from each other in Medumba, it does not reveal the total breakdown of Medumba's noun class system that some linguists may have expected. The data presented here provide evidence to support Good's observation that unpredictable mapping to noun classes may contribute to a noun class system's resilience. We made the additional observation that the concord marking singular and plural morphemes do not overlap; no matter what concord marker speakers pick, other speakers will be able to discern whether the meaning is singular or plural, so mismatches will not impair communication. Nevertheless, it is clear that interspeaker consensus for concord marking is lower than that for noun class pair marking.

Future studies on this topic should incorporate a larger data set from additional speakers, ideally including data from spontaneously produced natural speech. Word frequency should be considered as a potentially important factor. Without corpus-based work, it is difficult to determine the relative frequency of loan words vs. native words. It would be wise to further investigate the degree to which assignment of nouns to noun classes is semantically motivated as well. Finally, though this particular study did not concern itself with tonal morphology on concord markings, a future study should examine the use of the ɔ́m and ɔ̀m singular concord markings.

Finally, in recent re-elicitations, both speakers produced examples of noun class morphology that was inconsistent with their previous answers, occasionally introducing new interspeaker disagreement. For example, the speakers had initially agreed that "rock" took the **s-/m-** concord marking pair, but later disagreed on its concord morphology (Speaker 1 **s-/m-**, Speaker 2 **s-/tʃ-).** In another example, the speakers previously used different plural concord marking for "bed," but both later switched to the alternative option, effectively trading their preferred concord markings. Both speakers are expert and highly fluent, and use the language frequently. This provides a dimension for further examination. Interspeaker variation should ideally be calibrated against the degree to which *intra*speaker variation exists across a relatively short time frame. This kind of variation may be more indicative of change towards reduction in the system. Both of these speakers are in their 30s; it is likely that elicitations

with younger speakers would reveal other sources of instability. For example, many younger speakers apparently are increasingly using a pre-nominal first person possessive form /jɔm/ which does not inflect for noun class. It is not yet known to what degree younger speakers know and use the details of the noun concord marking sets described here.

As Van De Velde (2006) makes clear, the complex, 'untidy' particularities of individual languages may lead to deeper understanding of noun class systems more broadly. He argues that agreement morphology, not noun form morphology, is the key to understanding the gender assignment of nouns in Eton, a Bantu language of Cameroon. His description of the details of the "multifunctional" agreement system in Eton suggests to us that the Medumba concord marking system may have important functions that are yet to be uncovered.

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