

A taxonomy of Nzema noun classes

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1 Introduction

An initial analysis of noun structure in Nzema, a Kwa language spoken in the coastal areas of Ghana and the Ivory Coast, gives the impression that the language is comprised of two major noun classes. More exactly, the language has variable and in-

variable nouns that follow two distinct patterns. Upon deeper inspection, however, this classification provides an inadequate description of phenomena observed in data obtained from an Nzema informant over the course of three months of weekly meetings¹. To demonstrate this inadequacy, a large number of constructions involving the formations of possessives and plurals will be examined. Using evidence from this examination, this paper will argue for the recognition of three noun classes (with several subclasses) and two types of nominal affixes.

2 Possessive Constructions

2.1 The big picture

The formation of the possessive in Nzema is a complex morphological and phonological process. As the the data in table 1² demonstrate, the apparent stem in the formation of the possessive (for body parts, at least) is lacking much of the phonetic material from the elicitation form. For the moment I choose to analyze this as a pair of nominal affixes (a prefix and a suffix) that are obligatory for the noun in elicitation form, but are then absent in the possessive form. Alternatively — as has been suggested by Dr. Obeng —, this could be analyzed as a set of phonological processes that result in the reduction of the elicitation form to the form found in the possessive construction. The data presented in section 2.2 will provide crucial evidence for my analysis, so I will

¹Many thanks go to Emmanuel Yankey, my informant, and to Professor Obeng who arranged for his assistance.

²In these data, as throughout this paper I have transcribed [ʃ] and [ʒ]. It may well be that these sounds would be more accurately transcribed as [ɕ] and [ʒ]. I do not have the ability to make this differentiation.

English Gloss	Elicitation Form	‘His _____’
head	etile	oti
tooth	eɔ̄ɛ	oɔ̄ɛ
nose	ebonile	oboni
buttocks	ebutwæle	obutwæ
arm	ɛsale	ɔsa
chest	ɛkɛŋale	ɔkɛŋa
chin, beard	ɛkesale	ɔkesa
eye	ɛŋile	ɔŋi

Table 1: Possessive construction with body parts

leave further discussion of this issue until that point. Moving on, the data in table 1 also give a good representation of the vowel harmony process in Nzema. The data show that this process affects both the nominal prefix and subject marker as well as the nominal suffix, that is that the vowel harmony can move in both directions from the root.

A set of animal nouns and their possessive constructions are presented in table 2. These data — which are representative for a great majority of Nzema nouns — show that nouns other than body parts follow a much different paradigm. First, though, it must be stated that the data in table 2 come with many caveats. Forms such as [wɔabɔntʃi] only appear in careful speech; in normal speech there is coalescence between the vowel of the stem and the vowel of the affix. The exact vowel produced seems to vary between utterances and a full treatment of this phenomenon is beyond the scope of this paper. Also regarding the affix’s vowel, I have transcribed it as [ɔ̄] in the latter four rows. This is mainly a concession to those — notably Dr. Obeng — that suspect that this affix undergoes the same vowel harmony process as is found in the earlier set of data. Although it is clear that in rapid speech the vowel in question

English Gloss	Elicitation Form	His ‘_____’
groundhog	kəkətɪ	wəkəkətɪ
goat	abɔntʃɪ	wɔabɔntʃɪ
sheep	bʊanɪ	wɔbʊanɪ
spider	kɛdɛba	wɔkɛdɛba
cat	kusu	wɔkusu
rat	bote	wɔbote
mouse	kila	wɔkila
dog	tʃɪa	wɔtʃɪa

Table 2: Possessive constructions with animals

exhibits this harmony and one finds forms such as [wobote], I assert that such forms are the result of a different phonological process. As evidence for this assertion I point out that in slow, segmented speech the vowel is certainly [ɔ] (for contrast, the vowel harmony process does take place in segmented speech in the possessive forms of body parts). In normal speech the situation is murkier; I concede that the vowel is different from the vowel in the four upper forms but I still feel that it is closer to [ɔ] than to [o] — and in light of this I maintain that the vowel is fundamentally unchanging and have transcribed it accordingly.

These caveats aside, the notable aspects of the data are that the nominal stems remain unaltered in the transition from the elicitation form to the possessive construction and that the possessive marker appears in a different form. This contrast — between variable nouns like body parts and invariable nouns like animals and nearly everything else — is the fundamental distinction between noun types in Nzema. It allows us to make some predictions, as it seems to govern the possessive marker. It does not, however, give a complete picture of the classes of nouns found in Nzema.

English Gloss	Elicitation Form	‘His _____’
leg	eɔ̄æke	oɔ̄æke
face	enulu	onulu
mother	nili	oli
father	sɪɛ	ɔzi
husband	kulu	oxu
wife	jɪɛ	ɔji

Table 3: Other possessive constructions

2.2 The finer details

In table 1 a few body parts were carefully avoided; these, along with other nouns that do not seem to be fully explained by the above bifurcation of the noun system, shall now receive treatment. These new data are presented in table 3. The forms for ‘leg’ and ‘face’ are normal in terms of their nominal prefixes, but seem to be defective in that they either lack nominal suffixes or do not lose them in the possessive construction as do other body parts. These forms are different enough from the other body parts that they deserve their own classification and not just to be stuffed under the “variable noun” blanket.

In the bottom section of that same table we find another set of variable nouns that is significantly different in yet another way; these nouns — notably all kinship terms — manifest the opposite deviation from the forms above them. Instead of seemingly missing nominal suffixes, they seem to be prefix-deficient. Moreover, they undergo a process of lenition in the possessive forms. These interesting and relevant deviations would be missed in any description of the Nzema vocabulary that divided nouns with the simple sieve of variable verses invariable.

Returning to the discussion I abandoned earlier — on the nature of the lost phonetic material in the possessive construction of variable nouns — we find ourselves still faced with two choices. If we accept that the material is lost in a process of phonological reduction, we must then formulate rules that describe when this reduction can happen. These rules will have to be quite complex indeed if they are to handle there the loss of material in the beginnings of words for body parts, but not in kinship terms and the loss of final material in kinship terms and most body parts, but not in forms like [eɔ̄æke] and [enulu]. If, on the other hand, I am correct and the lost material constitutes prefixes and suffixes that are present primarily in the elicitation form of the noun, then we can easily posit that forms like the deviant body parts have prefixes but not suffixes (or at least highly defective suffixes) and that kinship terms have suffixes but no prefixes.

3 Plural Formation

As I have already demonstrated in section 2, the formation of possessive constructions can give us important hints about the nature of Nzema noun structure. The same can be said of the formation of plurals. For those nouns that take an explicit plural in Nzema (body parts and mass nouns do not), there are three major plural formations. The following few paragraphs may seem irrelevant for now, but the evidence they provide will be important when my proposed noun classes are discussed in section 4.

English Gloss	'____s'	'My ____s'
mother	nilimɔ	milimɔ
father	silemɔ	mɪzɪmɔ
wife	jilemɔ	mijimɔ
husband	kulumɔ	mixumɔ

Table 4: The plural with /-mɔ/.

3.1 The plural with /-mɔ/

One type of plural in Nzema is formed with a suffix, /-mɔ/. This plural form is found only with kinship terms like those in section 2.2. The lenition that occurs in the possessive form does not reappear in the plural form, but does in the possessive plural form, as shown in table 4. Significantly different in both possessive construction and in the plural, kinship terms in Nzema seem to behave unlike any other set of nouns.

3.2 The plural with /a-/

This plural seems to work only for consonant initial forms. The plural is formed by adding a prefix to the nominal stem and subjecting the initial consonant to the same process of lenition that is found in the possessive forms of kinship terms. Examples of this plural form are found in table 5.

3.3 The plural with /m-/

The most prolific plural in Nzema is perhaps also the most interesting. Several factors go into the production of this plural, and what follows is a rough description. Firstly,

English gloss	Singular	Plural
house	sʊa	azʊa
car	kali	axali
day	kɪɪ	axɪɪ
monkey	komu	axomu

Table 5: The plural with /a-/

English Gloss	Singular	Plural
groundhog	kəkətɪ	ŋgəkətɪ
woman	ɣàlé	mmàlé
cow	ɛlaŋkɛ	nnaŋkɛ
rabbit	asʊasʊa	nzʊasʊa

Table 6: The plural with /m-/

if the nominal stem is a vowel initial stem, that initial vowel is lost. The initial consonant, if voiced, is mutated into a homorganic nasal; the notable exception to this is that voiced velar sounds seem to become [m]. If voiceless, the initial consonant becomes voiced. The plural marker appears as a homorganic nasal before the initial consonant. As this rough depiction of the process predicts, forms which have a voiced initial consonant begin with geminate nasals in the plural. All of this is demonstrated in table 6.

3.3.1 The form [ŋgəkələ]

One form that seems to almost fit into this paradigm, but not completely is that for chicken (akələ, ŋgəkələ). In addition to the processes that happen in other plurals with /m-/, there also appears to be a case of partial reduplication. Partial reduplication has been shown as a rule to repeat primarily initial and final parts of a root and very

rarely medial. This suggests that the initial vowel in [akɔɛ], as well as those in the other forms listed above, are not merely parts of the root, but nominal prefixes like those found on body parts.

It is this evidence that leads me to call for the recognition of two different types of nominal prefixes. There are weak nominal prefixes like those found on words for body parts; these weak prefixes disappear in the environment of possessive constructions. The other nominal affixes, like those found in this section, are strong affixes and remain present in possessive constructions but disappear in the formation of the plural.

4 The classes of Nzema nouns

Having laid out all the evidence, I now present my system for the classification of nouns in Nzema. As invariable nouns seem to make up a majority of the Nzema vocabulary, let us deal with them first. Clearly all of these invariable nouns belong together in a class, let that class be CLASS I. Within this group, however, there is quite a bit of differentiation. As a first subclass, I recognize nouns that form the plural with /a-/ as CLASS IA. As a second group, consonant initial nouns that form the plural with /m-/ are recognized as CLASS IB. Tentatively, let us regard that class as also including the nouns with strong nominal prefixes; the strong nominal prefixes seem to be largely inert. If it turns out that these strong nominal prefixes are more significant than I have recognized, this system can be amended to reflect that fact. Additionally, there are forms such as [tʃɥia] ‘dog,’ that can form both types of plural

(aʃɥia, nɔʒɥia); let us group these nouns in class called CLASS IAB to reflect their ability to fit into both of the previous classes.

The variable nouns, unlike the invariable nouns, are not well treated by a monolithic class. As was shown in section 2.2 and again in section 3.1, there are striking semantic and morphological differences between words for body parts and kinship terms. Following this distinction, these two groups should comprise two different classes. Let us group the kinship terms into CLASS II. These terms are all of similar enough structure that there does not seem to be the need for any further subdivision. The body parts, then, are to be grouped into CLASS III. There is also little variation among these forms, with the exceptions of forms like [eɔʒæke] and [enulu]. While structurally different, these forms are so clearly in a category with the other body parts that a division into a separate class seems both unnecessary and misleading. The “normal” body parts can then be CLASS IIIA, while the deviant forms constitute CLASS IIIB.

5 Conclusions

To conclude, let it be known that my knowledge of Nzema is not exhaustive, and that there may well be several important phenomena that I have missed. Whatever the case may be, the important thrust of this paper is that an analysis of Nzema noun types is incomplete if it stops at the division between variable and invariable. A more complete analysis will take into account the many regular paradigms that are found in constructions like the formation of possessives and plurals. In this respect I have laid down the outline for the classification of the Nzema nouns with which I

am familiar. If it is incomplete, the system can be expanded to incorporate any other regular phenomena.