

## WHEN GUR CLASS MARKERS ARE ABSENT: SUFFIX OMISSION IN NATIORO

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**Abstract:** The paper deals with the morphology of class marking in Natioro, an underdescribed Gur language spoken in several villages of Burkina Faso. In Natioro, class markers (which are a typical feature of Gur languages) are frequently omitted in many contexts, such as genitive constructions, as well as NPs modified by adjectives, numerals, and quantifiers. In the paper, I will focus on the morphological (rather than semantic) properties of these constructions. I will show that noun stems occurring in constructions with omitted class markers can be regarded as instances of incorporation. Particular attention will be given to adjectival incorporation. In Natioro, there are two types of adjectival constructions, which can be distinguished by the nature of the stems involved. I will argue that some of the incorporated constructions are derived by merging a noun with a non-inflected adjective, whereas others can be regarded as full-fledged adjectives that incorporate noun stems. Some parallels between the constructions of the latter type and constructions with relational nouns are discussed as well.

**Key words:** Gur, Natioro, class marking, adjectival incorporation

### 1. Introduction

The paper focuses on the morphology of class markers in Natioro<sup>1</sup>, an underdescribed Gur language. Like most Gur languages (cf. Miede & Winkelmann 2007), Natioro possesses a large system of suffixed class markers, which are subject to omission in certain contexts. For

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<sup>1</sup> The language is called Samu Kune by the speakers.



known in Gur linguistics. Schwarz (2010) discusses the omission of class markers in Gur languages Buli and Konni and argues that the difference between inflected and non-inflected nouns in these languages is associated with the notion of referential status. In particular, Schwarz shows that the forms without class markers are interpreted as non-referential nouns and thus relates them to the notion of the “general number” category, following Corbett (2000). This suggestion is consistent with the facts observed in Natioro, because, as I will show below, truncated nouns are likely to be associated with non-referential contexts. However, it is rather hard to justify why some instances of class marker omission (e.g., attributive constructions, see §5) involve nouns marked for “general number”. On the contrary, I suggest that the stems lacking class markers are not subject to number marking at all. As I will show below, there is evidence that full-fledged nouns with class markers are not underspecified in number, which implies that class markers are, in fact, affixes expressing number (and, perhaps, definiteness). Hence, bare noun stems are predicted to be items that are not inflected for number; taken as such, they are integrated with class suffixes to receive number features. It is quite natural to assume that bare noun stems can also enter incorporation constructions, as in (1b). However, I will not discuss this question here. The only assumption that I make is that non-inflected nouns should be underspecified in number. Given that referential properties are introduced into an NP after it is inflected for number, I also hypothesize that the bare noun stems are non-referential; below, I will show that this prediction is in fact confirmed by the data.

The paper is structured as follows. Section 2 gives some basic data on the Natioro language. Section 3 presents the Natioro class system, describes contexts triggering the omission of class markers and discusses the nature of the omission. Section 4 describes different constructions where the omission occurs. Attributive constructions are considered separately in section 5. Section 6 concludes the paper.

## 2. The Natoro language

Natoro is an underdescribed Gur language spoken by some 4000–5000 speakers in several villages of Burkina Faso. The only sources containing basic data on Natoro are Prost (1968) and Miede & Winkelmann (2007). The variety discussed here is the dialect of Timba village, where most inhabitants were reported to know Dioula, the local lingua franca, but only several people could speak French. The data presented here is based on my own fieldwork in 2018–2020, including elicitation with a French-speaking consultant and a small collection of oral texts collected in Timba.<sup>3</sup>

In Natoro, three tone levels (high, mid and low) are distinguished. Nominal inflection is characterized by the presence of several classes which, like in most Gur languages, do not trigger agreement. Two basic word orders are distinguished with respect to the TAM form of the predicate. Perfective forms require SVO order (2), whereas clauses containing Imperfective forms (3) require SOV order. Case marking is also different in Perfective and Imperfective clauses. In Perfective clauses, a subject does not require any special case marking (2). In Imperfective clauses, subjects are obligatorily marked by the oblique case (3).

(2) *nā<sup>n</sup> númási swà =:*

1SG fill.PFV calabash=OBL

‘I filled the calabash’.

(3) *nā-mí swà nùmàsù-w̄*

1SG-OBL calabash fill-IPFV

‘I am filling the calabash’.

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<sup>3</sup> I am very grateful to my consultant Abdoulaye Koné without whom this paper (as well as any fieldwork on Natoro) would not be possible.

### 3. Class system in Natioero

Morphologically, the class system in Natioero is represented by several nominal suffixes, which are listed in (4). Each class is labeled based on its underlying form, however, some of the markers have allomorphs. The number correspondences between classes are indicated by arrows. Each affix has several allomorphs. In general, the form of the singular class marker of a noun does not predict the plural marker of the same noun, since almost all singular affixes may correspond to any of the plural affixes. An exception is the NA-class, which is not productive in Natioero. On the contrary, the A and WA markers are absolutely productive and are the most common class markers. Examples of correspondences between some classes are given in (5).

(4) **singular affixes**                      **plural affixes**

A	→	E
WA	→	JE
∅	→	I
NA	→	SI

(5) **SG**                      **gloss**                      **PL**

<i>bā:</i>	(A-class)	‘leg’	<i>bē:</i>	(E-class)
<i>bàŋgō<sup>n</sup>-wà</i>	(WA-class)	‘drum’	<i>bàŋgō<sup>n</sup>-jè</i>	(JE-class)
<i>pākū-wā</i>	(WA-class)	‘peanut’	<i>pākà-sī</i>	(SI-class)
<i>bòndō</i>	(∅-class)	‘granary’	<i>bòndò-sī</i>	(SI-class)

The underlying form (bare stem) of a noun cannot always be predicted by its superficial form. For instance, the noun *kālā* ‘cat’ has a bare stem form /kālī/, where the /i/ segment is deleted in order to escape the hiatus. The bare stem can be reconstructed based on the plural form *kālī-sī*, where the /i/ segment preceding the suffix does not result from any regular phonetic process. (For instance, another noun, *mūná* ‘ant species’, has the plural form *mūnú-sí:*, where the segment preceding the suffix is not the same as in the case of the noun *kālā*).

Thus, any full-fledged noun is the sequence of a bare stem and a class marker, and the latter functions as a nominalizer. One of the important consequences of this fact is that the forms containing class markers (which are presumably DPs that can be freely integrated into syntax) are not underspecified in number. Therefore, they cannot be ambiguous between the singular and plural readings. In contrast, in many languages, including some languages of West Africa, bare stems can have two readings – for instance, collocations like ‘buy sheep’ can be ambiguous between ‘buy a single sheep’ vs. ‘buy numerous sheep’. This can be illustrated by example (6). In (6), the stem ‘tail’ is infelicitous, because it is a singular noun and not a stem underspecified in number. Otherwise, the stem would have been felicitous in this context (cf. Eng. *rat tails*).

- (6) \*tùr-â<sup>l</sup>      ànz-ē:<sup>n</sup> `
  
rat-CL.POSS tail-CL.PL
  
int. ‘rat tails’

## 4. Contexts of omission

In this section, I will consider the contexts where class markers are omitted.

### 4.1. Constructions with pronouns and quantifiers

Class markers can be omitted with most pronominal elements functioning as NP modifiers. Examples below illustrate omission in constructions with demonstratives (7), interrogative elements (8), relative pronouns (9) and quantifiers (10).

- (7) pɔ́ŋ nī
  
dog DEM
  
‘this dog’ (pɔ́ŋ-wā ‘dog’)
- (8) púm fīnà
  
goat what
  
‘what goat?’ (pú<sup>n</sup>-wā ‘goat’)



Cases which are quite similar to those described above can be found in constructions with numerals. The following example illustrates the use of the numeral *kā:bà* ‘one’ with a bare stem (14).

- (14) *kàfēŋ-Ø*      *kā:bà*  
 donkey-CL      one  
 ‘one donkey’ (*kàfēŋ-wà* ‘donkey’)

### 4.3. Predicative contexts

In nominal clauses in which the clausal head is a noun, the latter can occur in its bare form. It is possible in identification constructions (‘it is X’), see (15). However, nouns in these constructions can also be used in their inflected forms, as in (16). The semantic difference between the two types of constructions is still unknown.

- (15) *kání* *pōŋ*  
 DEM      dog  
 ‘This is a dog’. (*pōŋ-wā* ‘dog’)
- (16) *kání* *fúlān-ā*  
 DEM      Fulbe-CL  
 ‘This is a Fulbe man’. (*fúlānā* ‘Fulbe man’)

The uses of bare noun stems in predicative contexts can be easily accounted for. Predicative contexts of NPs cannot be qualified neither as referential, nor as specific (see Paducheva 1985: 99–100). However, bare stems are assumed to be non-referential elements, and their use in contexts which are not associated with referentiality is semantically motivated.

Moreover, in some cases bare noun stems are used in contexts of secondary predication. Example (17) shows the bare noun stem (‘oil’) used as a complement to the verb of transformation (‘become’). It is also noteworthy that, whereas nouns can occur in the same contexts as bare stems, adjectives cannot. The latter is illustrated in (18).

- (17) *à sàmú-nā pí:-kā né:sī`*  
 COM human-man become-PTCP oil  
 ‘If a person turns into oil...’ (*né:sīā* ‘oil’)
- (18) *mádū pí \*nwè:<sup>n</sup> / nwè:<sup>n</sup>-nā*  
 M. become.PFV poor poor-ATTR  
 ‘Madou got poor’.

#### 4.4. Postpositions

A number of Natiro postpositions have nominal counterparts. Morphologically, these postpositions are nouns used without their class markers. These postpositions denote spatial relations, and their corresponding nouns denote (abstract) spatial locations. As in many languages of the world, the postpositions should be treated as grammaticalized nouns. However, in Natiro, the morphological makeup suggests that the former can be regarded as bare stems lacking the nominalizing affix. Some examples are given below.

- (19) *mádū siā: siōw<sup>n</sup>*  
 M. look.PFV up  
 ‘Madou looked up’. (*siō<sup>n</sup>-wā* ‘upper side’)
- (20) *mádū myā-kā sūmbò-wà siōw<sup>n</sup>*  
 M. hide-PTCP tree-CL up  
 ‘Madou hid in a tree’.
- (21) *siátā swâ<sup>1</sup> kùŋ*  
 S. house.POSS inside  
 ‘Sata is inside the house’. (*kūŋ-wā* ‘the interior side’)

The fact that class markers do not appear in these contexts is consistent with other facts discussed in this paper. First, the contexts where the stems ‘up’ and ‘inside’ appear are not nominal, and this disallows any nominal markers.<sup>4</sup> Second, we have already seen in the

<sup>4</sup> Typologically, many languages of the region are prone to grammaticalize postpositions from nouns, and a question arises whether these grammaticalized nouns can be regarded as initially referential, specific etc.

previous section that bare stems can be used in contexts where nouns are not referential or specific. It is quite natural to assume that this is also the case in (19)–(20). Following this line of reasoning, some parallels can be established between predicative non-referential nouns and postpositions. This would then imply that the latter are also predicative by nature. However, I will only mention that as a hypothesis to be considered, while further investigation and additional data on the syntax and semantics of postpositions is needed.

## 5. Attributive constructions

In many Gur languages, attributive adjectives can occur in incorporation constructions, cf. Ouoba (1982) on Gourmantchema, Delpanque (1997) on Dagara, Bodomo (1997: 49–50) on Dagaare, Cahill (2000/2001: 57–59) on Konni, and Carlson (1994: 119–124, 164–166) on Supyire. The facts concerning attributive incorporation in the languages of West Africa were summarized in Creissels (2016; 2018). This work discusses various cases of attributive constructions where the adjectival stem, as argued by Creissels, is incorporated into the head noun. However, this work does not distinguish compounding and incorporation, which are usually treated as separate phenomena in theoretical linguistics. In this paper, I will follow Baker (2003) and assume that compounding is a case of root-root merger in the lexicon, whereas incorporation is a syntactic phenomenon involving head movement. Compounding might not be fully productive, whereas incorporation is regular, like any syntactic process. The former case can be illustrated by the following examples taken from the Tomo Kan (< Dogon) language. In Tomo Kan, ordinary attributive constructions involve a regular tonal overlay (that is, the noun drops its tones to L), as shown in (22). On the contrary, compounds may not follow these rules, and their tones are not predicted by the general principles. In (23), which is an example of compounding, both the noun and the adjective preserve their lexical tones. However, in Tomo Kan there are other types of compounds with different tonal overlays.

(22) Tomo Kan  
*gwìnnì<sup>l</sup>* ɔ́  
 herb wet  
 ‘wet herb’ (*gwínní* ‘herb’)

(23) Tomo Kan  
*íná* ɔ́  
 iron wet  
 ‘molten iron’ (*íná* ‘iron’) (author’s own field notes)

(23) exemplifies the non-regular process whereby two roots are merged to form a single unit. This is an instantiation of compounding, which must be opposed to attributive incorporation. With regards to Natiro, the main problem is to define the nature of the syntactic relations between the nominal and adjectival stems in N + ADJ sequences, if the language possesses incorporated constructions. Thus, a simple typology of noun + adjective sequences can be constructed, based on the syntactic status of stems combined. The following combinations are possible:

- 1)  $\sqrt{n} + \sqrt{adj}$  (two roots are combined; such structures are usually referred to as true compounds, cf. (Baker 2003)),
- 2)  $\sqrt{n} + ADJ$  (a nominal root is incorporated into a full-fledged adjective),
- 3) N +  $\sqrt{adj}$  (an adjectival root is incorporated into a full-fledged noun),
- 4) N + ADJ (two items are presented as full-fledged elements).

Each of the three types of incorporation/compounding are predicted to have certain properties, which are determined exclusively by the nature of the merged elements. In Natiro, the solution is partially suggested by the morphological makeup of these elements. Some of them are bare nouns stems lacking class markers. In Gur languages, nouns can be merged with adjectives to form compounds, and such sequences are followed by class markers, cf. Carlson (1994: 164–165) for a detailed description of the phenomenon in Supyire. I have attested only several examples of such incorporation in my data:

- (24) *ŋgūnī.ŋgūnī` lām̀b̀īn-wā*  
 tale long-CL  
 ‘a long tale’ (*lām̀b̀īn-nā* ‘long-ATTR’)

In this case, the reduplicated noun *ŋgūnī.ŋgūnī* ‘tale’ is combined with the verbal stem *lām̀b̀īn-* ‘be, become long’ to form an incorporated construction. The suffix *-wā* following the sequence is the most productive class marker. It cannot be treated as an attributive suffix, since the regular attributive marker is *-nā*. At the same time, the noun ‘tale’ belongs to the zero ( $\emptyset$ ) class, and it cannot determine the class of the whole construction. Thus, the whole sequence functions as a single word marked by the class marker *-wā*. This can be regarded as an instance of incorporation, since the construction does have a non-incorporated counterpart (*ŋgunī-ŋgūnī lām̀b̀īn-nā*).

Another case is represented by nouns combining with non-derived adjectives. In (25), the adjective *lām̀b̀īn-nā* is composed of the verbal root and the suffix *-nā* (plural *-nē*), which functions as an attributive marker and presumably goes back to the class marker having correspondences in some Gur languages. In Natioero, there is a set of non-derived adjectives which do not combine with this suffix. These adjectives have a prefix, *ka-*, when used predicatively (25), and do not have any affixes in the attributive position (26).

- (25) *bā:b-ā nī kā-fō:*  
 sheep-CL DEM KA-white  
 ‘This sheep is white’.
- (26) *bā:b-ā (\*kā-)fō:*  
 sheep-CL (KA-)white  
 ‘a white sheep’

Bare noun stems can be used with these adjectives, which is illustrated below. One can see that the nouns *yā:sī* ‘sauce’ and *cwā* ‘woman’ do not change their phonological form. In contrast, the noun *sīsiā* ‘toh (local dish)’, belonging to the A-class, is truncated.

- (27) *yā:sī*            *ʔnà:*  
 sauce                red  
 ‘red sauce’ (*yā:sī* ‘sauce’)
- (28) *cwā*             *ʔnà:*  
 woman                red  
 ‘a white (= European or Berber) woman’ (*cwā* ‘woman’)
- (29) *sīsī*              *ʔnà:*  
 cake                  red  
 ‘red toh (local dish)’ (*sīsīā* ‘toh’)

A question arises whether these cases can be regarded as incorporated structures or compounds at all. Let us assume that the sequences in (27)–(29) are simple attributive constructions. Then, for some reason, the noun (even if it occurs as a bare stem) triggers agreement with the dependent adjective. It can be seen below in (30a), where the bare noun stem combines with a full-fledged adjective. (30b) shows that combinations of a full-fledged noun stem and an adjective are also felicitous. Thus, if we deal with an attributive construction, an explanation of the fact that the head can occur both with and without its class marker is needed. In contrast, the incorporation hypothesis does not require any additional assumptions – under this approach, (30a) can be regarded as an incorporated version of (30b).

- (30) a. *yé<sup>n</sup>*                *pāŋ-bān-jē*  
 mosquito                big-RDP-CL.PL
- b. *yé<sup>n</sup>-zī*                *pāŋ-bān-jē*  
 mosquito-CL.PL        big-RDP-CL.PL  
 ‘big mosquitoes’

The morphological makeup of the constructions in question (namely, the lack of class markers) suggests some parallels with incorporated constructions like those exemplified in (1b). Then in (30), the noun is incorporated into the adjective, but not vice versa. This is not an impossible scenario, but it is not clear whether this suggestion can be

extended to cases where the truncated noun is merged with other types of modifiers (see §4.1). Whereas the problem with the incorporation analysis seems to be unresolved, I assume that the cases shown above are not instantiations of  $\sqrt{n} + \sqrt{\text{adj}}$  compounding. One can say that constructions like (29) form tightly-knit semantic units – ‘red toh’ is not just a dish which is red, but is a special type of this dish. However, this explanation can hardly be applied to cases like (31), where the NP denotes just a goat of a certain color.

- (31) *pú<sup>n</sup>* / \**pú<sup>n</sup>-wā fō:*  
 goat      goat-CL    white  
 ‘a white goat’ (*pú<sup>n</sup>wā* ‘goat’)

The semantic criterion (that is, whether the sequences denote “tightly-knit entities” or not) is quite impressionistic and, therefore, unreliable. At the same time, it is difficult to evaluate the productivity of constructions with omitted class markers. If they were less productive than constructions with non-omitted class markers, it would be a more reliable argument in favor of their compound status.

There is at least one other possibility that has to be considered with more attention. We have already seen that non-derived adjectives occur in two forms, attributive and predicative. The difference between them is that the latter attaches the prefix *ka-*. What is the nature of this prefix? Although it only occurs in predicative contexts, I argue that it has nothing to do with any predicative categories. It is quite possible that this prefix is related to the noun-like element *kā*, functioning as a demonstrative pronoun. Its use is exemplified in (32). In Natoro, it was grammaticalized as a marker deriving adjectives and participles from verbs: *pē:<sup>n</sup>* ‘break (INTR)’ – *pē:<sup>n</sup>-kà* ‘broken’.

- (32) *ká*      *ná*      *déŋgúlā*  
 DEM      FOC      baptism  
 ‘It is this thing that is [called] baptism’.

It is much more likely that the source of the prefix *ka-* is the element with generic meaning *kā* ‘this, this thing’. If it had gone back to the class marker, it would have been grammaticalized as a suffix (following the normal N-CL word order), but not as a prefix. In contrast, the N + Adj collocation would be easily reinterpreted as a prefix-stem sequence. Given the fact that copulas expressing identification are null verbs as in (32), I assume that the predicative uses of the adjectives in question are frozen combinations of a (semantically empty) noun and an adjectival stem. In other words, the sentence in (25), ‘This sheep is white’, can be literally translated as ‘This sheep is a white thing’.

Considering this suggestion, one can see that attributive collocations like those exemplified in (27)–(29) can in fact be combinations of an adjectival stem and a noun, the latter functioning as a participant bearing the role of the property holder. In predicative contexts, this role is performed by the dummy pronoun (or, in other terms, by the frozen combination of an adjective and a dummy pronoun). Thus, such N + Adj sequences can be regarded as constructions with relational elements, mirroring those with relational nouns. In constructions of the latter type (‘his mother’), the dependent noun is obligatorily expressed in many languages, since it refers to an entity relative to which the head noun is evaluated. In other words, relational nouns are semantically unsaturated, and it is the possessee in the construction ‘his mother’ that saturates the head noun, see, e.g., de Bruin & Scha (1988) for a description of the phenomenon. Similarly, the adjectives in (27)–(29) can be analyzed as relational elements requiring the dependent. Typologically, the Natoro data fit well in some generalizations made in Baker (2003), where adjectives that cannot be used without nouns are discussed.<sup>5</sup>

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<sup>5</sup> Baker (2003), following Postal (1979), discusses non-intersective readings of adjectives in Mohawk and makes the following observation: “[T]here is no uniform sense of goodness in Mohawk, but goodness must always be evaluated relative to some common noun” (Baker 2003: 260).

This suggestion is reinforced by the fact that adjectives of this class are noun-like elements. Non-derived adjectives have their own class markers which are assigned lexically. This property relates them to ordinary nouns. Plural forms of some non-derived adjectives are given in (33). One can see that the plural form of the adjective ‘white’ includes the vowel alternation (/o/ → /e:/), presumably involving the E class marker. In contrast, the plural form of the adjective ‘big’ is formed by irregular reduplication, and the adjectives combines with the JE class marker.

(33)	<b>SG</b>	<b>PL</b>
‘white’	<i>kā-fō:</i>	<i>kā-fwē:</i>
‘big’	<i>kā-pāŋ</i>	<i>kā-pāŋ-bān-jē</i>

The nominal properties of the non-derived adjectives suggest that the type of incorporation illustrated in (30) may have a different source than the type of incorporation shown in (24). In other words, whereas the latter involves a nominal and a verbal stem, the former involves two elements with nominal properties, one of which might be a property-denoting relational element. It is not clear whether derived and non-derived adjectives have identical syntactic properties, and this question needs further investigation.

To sum up, I have shown that there are at least two structural types of attributive constructions with adjectives in Natioro. The first type involves two stems and can be represented as [ $\sqrt{n} + \sqrt{\text{adj}}$ ], cf. (24). Structures of this type contain a noun and an incorporated adjective. The fact that the latter are taken as non-inflected roots can be confirmed by the absence of the regular adjectivizing marker (*-nā*). Thus, the structure involves adjectival incorporation. However, additional data are needed in order to show that this process is regular and cannot be regarded as compounding. The second type of incorporation is [ $\sqrt{n} + \text{ADJ}$ ]. It involves adjectives with nominal properties that may attach bare noun stems, but additional arguments in favor of the incorporation analysis are needed.

## 6. Conclusion

In this paper, I considered the properties of class marking in the Gur language Natoro. I described instances in which class markers are omitted and argued that the analyzed forms can be regarded as bare noun stems. Bare noun stems, as opposed to referential DPs, occur in a wide range of contexts in Natoro, including genitive constructions, predicative constructions of identification, secondary predications, and constructions with NP modifiers (pronouns, quantifiers, and adjectives). Natoro postpositions can also be regarded as bare noun stems lacking nominalizing affixes. I demonstrated that some of the constructions described in this paper can be regarded as incorporated structures, and put forward a hypothesis on the different sources of incorporation involving adjectival stems.

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## Abbreviations

1, 2, 3 – 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> person	KA – <i>ka</i> -prefix
ATTR – attributivizer	L – low tone overlay
CL – class marker	OBL – oblique
COM – comitative	PFV – perfective
DEM – demonstrative	PL – plural
FOC – focus	POSS – possessor
HL – falling (HL) tone overlay	PTCP – participle
IPFV – imperfective	REL – relative pronoun

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