

THE EMERGENCE OF AN ALTERNATIVE SET OF PREFIXES IN THE CLASS INFLECTION OF ADNOMINALS AND PRONOUNS IN JOOLA FÓOÑI (ATLANTIC)

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Abstract: In this article, we describe and analyze a set of alternative forms of class prefixes found in the inflection of adnominals and pronouns that have never been mentioned so far in the literature on Jóola Fóoñi. This alternative form of class prefixes differs from the standard form by the presence of a vowel *a*. We argue that the existence of the *Ca*-variant of the class prefixes of adnominals and pronouns is not related to the fact that some nouns have a *Ca* prefix, and results rather from the reanalysis of the prefixal sequence that characterizes participles as an alternative set of class prefixes whose use tends to be extended to other types of noun modifiers.

Key words: Atlantic languages, Jóola Fóoñi / Diola-Fogny, noun classes, gender-number agreement, participles.

1. Introduction

Jóola Fóoñi (aka Diola-Fogny), spoken in south-western Senegal by approximately 500,000 speakers, belongs to the Bak branch of the Atlantic family.¹ The main references on Jóola Fóoñi are (Weiss 1938; Sapir 1965;

¹ As discussed by Barry (1987), who to the best of our knowledge was the first to use the term “Central Jóola”, Jóola languages can be divided into the Central Jóola dialect continuum and peripheral Jóola varieties such as Karon,

Hopkins 1995).² This article is based on a corpus of more than twelve hours of recorded naturalistic texts that we transcribed and analyzed within the frame of our project of writing a reference grammar of Jóola Fóoñi.

The phenomenon we describe and analyze in the present paper is not mentioned in the available descriptions of Jóola Fóoñi or of any other Jóola variety. The point is that the corpus we transcribed includes many occurrences of noun modifiers with class prefixes that differ from those described in the literature on Jóola languages by the presence of a vowel *a*, as in *fɔ-nak fa-cɛɛn* ‘some day’ instead of *fɔ-nak fɔ-cɛɛn*. After describing this phenomenon, we discuss possible explanations.

The article is organized as follows. §2 provides general information about genders, inflectional types of nouns and classes in Jóola Fóoñi. §3 describes the standard prefixes involved in the class inflection of adnominals and pronouns and the *Ca*-variants found with consonant-initial stems. §4 discusses the possible origin of the *Ca*-variants of class prefixes. §5 summarizes our conclusions.

2. Genders, inflectional types of nouns and classes in Jóola Fóoñi³

2.1. Introductory remarks

In this paper, we adopt the definition of gender as a classification of nominal lexemes that manifests itself in their behavior as agreement controllers. A gender is a subset of nominal lexemes that have the same

Kwaataay, Mlomp-North, or Bayot. Jóola Fóoñi is part of the Central Jóola dialect continuum. On the classification of Jóola languages, see also Segerer & Pozdniakov (forthcoming).

² On the gender systems of other Central Jóola varieties, cf. Sambou (1979) on Kaasa, Bassène (2007) and Sagna (2008) on Banjal, Segerer (2015a) on Keeraak, Watson (2015) on Kujireraay, Creissels et al. (2021) on Fóoñi. For a general survey of Atlantic gender systems, cf. Creissels & Pozdniakov (2015).

³ For a more detailed discussion of the data presented in this section, readers are referred to (Creissels et al. 2021).

agreement behavior in all their inflected forms and in all the constructions in which they control agreement. In addition to a relatively high number of genders, a major characteristic of Niger-Congo systems is that the division of nouns into genders (based on their agreement properties) and their division into inflectional types (based on the particular pairs of singular/plural markers they select) are closely related, but do not fully coincide. Jóola Fóoñi is quite typical in this respect.

The theoretical and terminological framework underlying this article is discussed with reference to Jóola Fóoñi in (Creissels & al. 2021), and in more general terms in (Creissels forthcoming a; forthcoming b). Crucially, in order to avoid confusion between the various meanings of the term “class” in the tradition of Niger-Congo studies, we avoid using “class” with reference to either noun morphology or sets of nouns (be it with reference to their agreement properties or morphological characteristics). In our terminology, *CLASS* refers *exclusively* to the inflection of the adnominals and pronouns that can act as targets of gender-number agreement mechanisms controlled by nouns. For us, the nominal prefixes commonly designated as class markers are not class markers, but number markers. Inflectional types of nouns have an obvious (although sometimes complex) relationship with the properties of nouns as agreement controllers, and the inflectional affixes of nouns are often similar or even identical to the corresponding agreement markers, but the intricacies of the relationship between the inflectional morphology of nouns and that of the adnominals and pronouns involved in the same agreement chains are much easier to describe consistently within a framework that does not try to conflate the number markers of nouns and the gender-number agreement markers of adnominals and pronouns into a single category of “class markers”.

2.2. The classes of Jóola Fóoñi

2.2.1. The inventory of classes

Jóola Fóoñi has 15 classes in the sense of cells in the inflectional paradigm of the adnominals and pronouns involved in the expression of

agreement with nouns. This means that, with the exception of a limited number of invariable adnominals or pronouns (such as *burom* ‘all’) adnominals and pronouns have a paradigm of up to 15 distinct forms (designated here as classes A, BK, E, S, B, U, F, K, J, M, Ñ, T, D, D’, and N) with the following property: when a word characterized by this morphological paradigm modifies or resumes a noun, the choice of a particular class value is determined by the noun acting as head or antecedent.

In the paradigms of indexes (in particular, in the paradigm of obligatory subject indexes prefixed to verbs), the same distinctions are found in the third person.

The labels we use to refer to the individual classes evoke the phonological shape of the corresponding affixes.⁴ Semantically motivated labels would be confusing, due to the semantic heterogeneity of most of the sets of nouns associated with a given agreement pattern, and the difficulties in establishing cognacy between the classes attested in the various branches of the Atlantic family are such that it is impossible to propose a numbering system based on the same principles as that used for Bantu languages. In such a situation, the only practical and non-confusing solution is to use language-specific and phonetically motivated labels.⁵

⁴ See §3 for a systematic presentation of the class inflection of adnominals and pronouns.

⁵ The labels D and D’ call for a comment, since the distinction between their exponents is not immediately obvious. Formally, with stems beginning with a vowel, they differ only in the ATR value they impose to the vowels of the stem. For example, the third person pronoun is *d-ɔɔ* in class D and *d-oo* in class D’. Given that, in the vowel system of Jóola Fóoñi, -ATR and +ATR can be analyzed as the default value and the marked value of the ATR feature, we analyze the underlying forms of the markers of class D and class D’ as *d* and *d^{+ATR}* (i.e. *d* plus a floating +ATR feature), respectively. Since the acute accent is used in Jóola orthography to mark +ATR vowels, D’ is a convenient label for a class whose exponents include a +ATR feature. Semantically, class D expresses ‘vague reference to things or events’, whereas class D’ expresses ‘place conceived as an interior’.

For example, non-subject relatives are introduced by a relativizer *-an* with the 14 distinct forms listed in (1).⁶

(1) class inflection of the relativizer *-an*

class	relativizer
A	<i>∅-an</i>
BK	<i>k-an</i>
E	<i>y-an</i>
S	<i>s-an</i>
B	<i>b-an</i>
U	<i>w-an</i>
F	<i>f-an</i>
K	<i>k-an</i>
J	<i>j-an</i>
M	<i>m-an</i>
Ñ	<i>ñ-an</i>
T	<i>t-an</i>
D	<i>d-an</i> ~ <i>r-an</i> ⁷
D'	<i>d-en</i> ~ <i>r-en</i>
N	<i>n-an</i>

When an object relative clause modifies a noun, the class value expressed by the relativizer is determined by the head noun (and conversely, each class value selects a subset of noun forms as the potential heads of the relative clause), as in (2). Nouns are in the definite form, characterized by the suffixed definite article *-a-CL*. Only 13

⁶ The fact that there are only 14 distinct forms in (1) is due to the use of the same form for classes BK and K. The exponents of classes BK and K are clearly distinct, for example, in the paradigm of non-subject indexes (i.e., the verbal suffixes that refer to objects and the nominal suffixes that refer to possessors: *-il* for class BK, *-kɔ* for class K), but have a syncretic form in many other paradigms.

⁷ In Jóola Fóoñi, the possibility of contrast between *d* and *r* is mostly limited to relatively recent borrowings (mainly from Mandinka, Wolof, or French). In the markers of classes D and D', *d* and *r* are in free variation.

of the 15 forms of the relativizer are illustrated in (2), since the other two (the ‘orphan classes’, see §2.2.2) can only be found in free relatives.

(2) <i>a-sɛɛk-a-w</i>	\emptyset - <i>an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the woman I saw’	(A)
SG-woman(A)- D-CLA	CLA-REL	SI:1SG-see- EP-R/F		
<i>kɔ-sɛɛk-a-k</i>	<i>k-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the women I saw’	(BK)
<i>ɛ-yɛn-ɛ-y</i>	<i>y-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the dog I saw’	(E)
<i>sɪ-yɛn-a-s</i>	<i>s-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the dogs I saw’	(S)
<i>bu-bɔɔr-ɛ-b</i>	<i>b-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the tree I saw’	(B)
<i>u-bɔɔr-ɛ-w</i>	<i>w-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the trees I saw’	(U)
<i>f-al-a-f</i>	<i>f-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the river I saw’	(F)
<i>k-al-a-k</i>	<i>k-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the rivers I saw’	(K)
<i>ji-bɛɛl-a-j</i>	<i>j-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the palm tree I saw’	(J)
<i>mɔ-bɛɛl-a-m</i>	<i>m-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the palm trees I saw’	(M)
<i>ñɪ-wɔj-a-ñ</i>	<i>ñ-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the chain I saw’	(Ñ)
<i>t-in-a-t</i>	<i>t-an</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the place I saw’	(T)
<i>d-in-ɛ-d</i>	<i>d-ɛn</i>	<i>ɪ-jɔk-ɔ-m</i>	‘the place I saw’	(D’)

2.2.2. Canonical classes and orphan classes

We designate as CANONICAL CLASSES the 11 classes that correspond to sets of potential controllers including at least two noun forms that cannot be viewed as variants of each other: A, BK, E, S, B, U, F, K, J, M, and Ñ.

We designate as ORPHAN CLASSES the two classes (D and N) that do not correspond to sets of potential controllers, and hence never mark agreement with a noun assuming the role of controller.

The remaining two classes (T and D’) are neither canonical classes nor orphan classes. They can be involved in agreement mechanisms controlled by nouns, but their involvement in agreement mechanisms controlled by nouns is both atypical and relatively marginal in discourse. T agreement can only be controlled by *t-in* ~ *t-an* ‘place conceived as delimited in a precise way’, and D’ agreement can only be controlled by *d-in* ~ *d-ɛn* ‘place conceived as an interior’, which means that there

is no possible choice about the possible head or antecedent of a class T or D' form. Moreover, the only possible controllers of classes T and D' are formed on what we propose to call a CHAMELEON STEM (*-m ~ -an*) also found in *b-m ~ b-an* 'place conceived as vaguely delimited' and in *Ø-an* plural *bok-an* 'human being'. Such a stem can be analyzed as having no content of its own, and as serving to form nouns expressing a notion basically expressed by a class in its non-contextual use (see §2.2.3), which makes problematic the very notion of agreement with a noun in the role of controller.

2.2.3. Contextual and non-contextual use of classes

By contextual use of classes, we mean the situation implicitly considered as canonical in Niger-Congo studies, in which either a form inflected for class can be related to an overtly expressed controller, or the sentence including this form can only be interpreted with reference to a controller suggested by the context of utterance.

However, forms inflected for class are not always analyzable as the target of an agreement mechanism controlled by a noun present in the context or suggested by the context. They may also have NON-CONTEXTUAL uses in which no controller is present, and the particular context in which they are uttered plays no role in their interpretation.

For example, 11 out of the 15 forms of the relativizer *CL-an* may be found in constructions in which no head noun is present, and the context plays no role in the selection of the domain within which the property expressed by the relative clause delimits a sub-domain. In its non-contextual use, the relativizer is interpreted as indicated in (3), regardless of the context.

(3) the relativizer *-an* introducing free relatives

<i>Ø-an</i>	(A)	'the person that'
<i>k-an</i>	(BK)	'the people that'
<i>y-an</i>	(E)	'the thing that'
<i>s-an</i>	(S)	'the things that'
<i>b-an</i>	(B)	'where'

<i>w-an</i>	(U)	‘the thing that’
<i>m-an</i>	(M)	‘how’
<i>t-an</i>	(T)	‘where’
<i>d-an</i>	(D)	‘the thing that’
<i>d-ən</i>	(D’)	‘where’
<i>n-an</i>	(N)	‘when’

2.2.4. Two types of non-contextual use of classes

The non-contextual use of the following classes concerns forms that occur in typically nominal syntactic positions (including those of subject and object), and can therefore be described as PRONOMINAL:

- forms of class A or BK used as antecedentless pronouns⁸ referring to human beings, such as *a-cila* ‘the aforementioned person’, or *kʊ-cɛɛn* ‘some persons’;
- forms of class E or S used as antecedentless pronouns referring to things, such as *y-anɔɔsan* ‘everything’,⁹ or *s-an kɔŋarɔlɔm dɪ lɛkɔɔlɛy* ‘what they brought from school’;
- forms of class U used as antecedentless pronouns referring to things, such as *w-anɔɔsan* ‘everything’, or *w-an akaanom* ‘what (s)he did’;
- forms of class D used as antecedentless pronouns referring to things, such as *dɪ-cɛɛ* ‘something’, or *d-an ɪwɔnɔɔrɛ* ‘what I think’; class D forms have no other possible use, since class D is an orphan class, and class D forms are not used adverbially either (see below).

⁸ By “antecedentless pronouns”, we mean pronouns whose interpretation is not conditioned by the identification of a particular noun acting as their antecedent, such as English *somebody* or *nothing*.

⁹ The indefinite determiner/pronoun *CL-anɔɔsan* ‘every, any’ has a variant in which the class marker is repeated: *CL-an-ɔɔ-CL-an* (as for example class E *y-an-ɔɔ-y-an*). The etymology of this variant is more transparent, since it involves the reduplication of a formative *-an-* probably cognate with the stem of the relativizer *CL-an*, and a formative *-ɔɔ-* cognate with distributive/free-choice *oo* triggering reduplication of noun stems, as in *a-sɛɛk oo sɛɛk* ‘every/any woman’ or *ɛ-loop oo loop* ‘every/any house’.

The non-contextual use of the following classes concerns forms that cannot be used as subjects or objects, and can be described as ADVERBIAL, since they typically occur as adjuncts with a semantic role entirely determined by the class marker:

- forms of class B used as spatial adverbs referring to vaguely delimited places, such as *bv-ceen* ‘somewhere’, or *b-anɔɔsan* ‘everywhere’;
- forms of class T used as spatial adverbs referring to places delimited with precision, such as *t-aa-t-e* ‘here’, or *t-an anenom kɔɔraa* ‘where he left the herd’;
- forms of class D’ used as spatial adverbs referring to the interior of something, such as *d-ɛɛ-r-e* ‘herein’, or *d-en kɔnɔcenom* ‘where they entered’;
- forms of class Ñ used as iterative adverbs, such as *ñ-gaba* ‘twice’;
- forms of class N used as temporal adverbs, such as *ni-cee* ‘sometimes’, or *n-anɔɔsan* ‘always’; class N forms have no other possible use, since class N is an orphan class, and class N forms are not used pronominally either.

Class M has the particularity of lending itself to non-contextual uses of both types, adverbial and pronominal, but with different meanings:

- class M forms are particularly frequent in an ADVERBIAL non-contextual use in which they act as manner adverbs, such as *m-ɔɔ-mv* ‘thus’, *m-anɔɔsan* ‘anyway’ or *m-an iregim* ‘as I told you’.
- class M forms of possessives and of the genitival linker also have a PRONOMINAL non-contextual use in which they can be glossed ‘what concerns X’. For example, *m-ɔɔl-ɪl* ‘theirs (cl.M)’ can be understood as ‘what concerns them’.¹⁰

¹⁰ Comparison with other languages suggests that a noun glossable as ‘matter’ and triggering M agreement may have been involved in the emergence of this use of class M forms, but no such noun is attested in present-day Joola Fóõñi.

2.3. The inflectional prefixes of Jóola Fóoñi nouns

Abstracting from phonologically predictable variations, Jóola Fóoñi can be analyzed as having 19 prefixes of nouns related to the agreement system. However, this count relies on analytical decisions that are not always easy to make. In this article, we present what we consider the simplest and most consistent account of noun prefixes without discussing the problematic points, since the decision on the precise number of nominal prefixes to be recognized has no impact on the question that constitute the central topic of this paper, and would require more space than available here.

The 17 prefixes listed in (4) unequivocally determine the agreement pattern and number value of the noun forms they mark. A dash in the ‘number value’ column indicates prefixes only attested in nouns that do not have distinct singular and plural forms.¹¹

(4) nominal prefix (underlying form)	nominal prefix (C-initial stems)	nominal prefix (V-initial stems)	agreement pattern	number value
<i>a-</i>	<i>a- ~ e-</i>	<i>∅-</i>	A	singular
<i>ε-</i>	<i>y-</i>	<i>ε- ~ e-</i>	E	singular
<i>f-</i>	<i>fɔ- ~ fu-</i>	<i>f-</i>	F	singular
<i>fa-</i>	<i>fa- ~ fɛ-</i>	—	F	—
<i>ka-</i>	<i>ka- ~ kɛ-</i>	<i>k-</i>	K	singular
<i>b-</i>	<i>bɔ- ~ bu-</i>	<i>b-</i>	B	singular
<i>ba-</i>	<i>ba- ~ bɛ-</i>	—	B	singular
<i>ñ-</i>	<i>ñi- ~ ñi-</i>	<i>ñ-</i>	Ñ	singular

¹¹ The lack of variants for the prefixes *bok-*, *t-* and *d^{+ATR}-* is due to the fact that each of them is only found with one single stem: *-an* ‘person’ for *bok-*, *-in ~ -an* ‘place’ for *t-* and *d^{+ATR}-*. Note that, with the exception of ‘father’ and ‘mother’ (see §2.4), the (non-diminutive) human nouns other than *an* ‘person’ share their plural suffix (*k-*) with those non-human nouns whose singular prefix is *f-*, although the agreement patterns coincide only partially.

<i>j-</i>	<i>ji- ~ ji-</i>	<i>j-</i>	J	singular
<i>ja-</i>	<i>ja- ~ jv-</i>	—	J	—
<i>bok-</i>	<i>bok-</i>	—	BK	plural
<i>s-</i>	<i>si- ~ si⁻¹²</i>	<i>s-</i>	S	plural
<i>o-</i>	<i>w-</i>	<i>o- ~ u-</i>	U	plural
<i>m-</i>	<i>mɔ- ~ mu-</i>	<i>m-</i>	M	plural
<i>ma-</i>	<i>ma- ~ mɐ-</i>	—	M	—
<i>t-</i>	—	<i>t-</i>	T	—
<i>d^{+ATR-}</i>	—	<i>d-</i>	D'	—

Each of the two nominal prefixes presented in (5) is found in two sets of noun forms that differ in their agreement pattern.

(5) nominal prefix (underlying form)	nominal prefix (C-initial stems)	nominal prefix (V-initial stems)	agreement pattern	number value
<i>∅-</i>	<i>∅-</i>	<i>∅-</i>	A or E	singular
<i>k-</i>	<i>kɔ- ~ ku-</i>	<i>k-</i>	BK or K	plural

2.4. Inflectional types of nouns and genders

5 of the 19 noun prefixes (*fa-*, *ja-*, *ma-*, *t-*, and *d^{+ATR-}*) are only found in nouns that do not show number variation. Moreover, with the exception of those only found with human nouns (i.e., singular *a-* and plural *bok-*), all other prefixes are also found in nouns that do not have distinct singular and plural forms. For example, *ε-manɪŋ* ‘Mandinka people’ (a collective noun corresponding to *a-manɪŋ* ‘Mandinka person’ plural *kɔ-manɪŋ*) is a singular tantum, since *ε-* is in principle a singular prefix, whereas *m-ɔf* ‘ground’ is a plurale tantum, since *m-* is in principle a plural prefix.

¹² The variant *so-* found in *so-mpa* ‘fathers’ can be explained by the influence of a labial consonant in coda position, since this form is syllabified as *sɔm.pa*.

For the nouns that have distinct singular and plural forms, taking into account both number marking and agreement patterns, there are 14 possible singular / plural pairings, listed in (6).¹³

(6)	singular	plural	examples
	Ø- (A)	<i>bok-</i> (BK)	<i>Ø-an</i> pl. <i>bok-an</i> ‘person’
	Ø- (A)	<i>k-</i> (BK)	<i>Ø-ĩṅaay</i> pl. <i>k-ĩṅaay</i> ‘mother’ ¹⁴
	<i>a-</i> (A)	<i>k-</i> (BK)	<i>a-seek</i> pl. <i>kʊ-seek</i> ‘woman’
	<i>a-</i> (A)	<i>s-</i> (S)	<i>a-mpa</i> pl. <i>sʊ-mpa</i> ‘father’
	Ø- (A)	<i>s-</i> (S)	<i>Ø-ĩṅaay</i> pl. <i>s-ĩṅaay</i> ‘mother’
	<i>ε-</i> (E)	<i>s-</i> (S)	<i>e-suk</i> pl. <i>si-suk</i> ‘village’
	Ø- (E)	<i>s-</i> (S)	<i>Ø-sindo</i> pl. <i>si-sindo</i> ‘home’
	<i>b-</i> (B)	<i>ʊ-</i> (U)	<i>bʊ-rʊŋ</i> pl. <i>ʊ-rʊŋ</i> ‘road’
	<i>ba-</i> (B)	<i>ʊ-</i> (U)	<i>ba-caac</i> pl. <i>ʊ-caac</i> ‘bed’
	<i>f-</i> (F)	<i>k-</i> (K)	<i>fʊ-lɛɛŋ</i> pl. <i>kʊ-lɛɛŋ</i> ‘month’
	<i>ka-</i> (K)	<i>ʊ-</i> (U)	<i>ka-sɔnd</i> pl. <i>ʊ-sɔnd</i> ‘roof’
	<i>j-</i> (J)	<i>m-</i> (M)	<i>ji-bɛcel</i> pl. <i>mʊ-bɛcel</i> ‘palm tree’
	<i>j-</i> (J)	<i>k-</i> (K)	<i>ji-cil</i> pl. <i>ku-cil</i> ‘eye’
	<i>ñ-</i> (Ñ)	<i>ʊ-</i> (U)	<i>ñt-wʊj</i> pl. <i>ʊ-wʊj</i> ‘chain’

In terms of genders, i.e., if nominal lexemes that have exactly the same agreement properties both in the singular and the plural are grouped together (regardless of their prefixes), 9 genders can be recognized (A/BK, A/S, E/S, F/K, J/M, J/K, B/U, K/U and Ñ/U), but 3 of them (A/S, J/K, and Ñ/U) are statistically marginal: we are aware

¹³ Interestingly, across Jóola varieties, there is much more variation in the inventories of possible singular / plural pairings than in the inventories of noun prefixes and agreement patterns. For example, Keeraak has the same inventory of noun prefixes and agreement patterns as Jóola Fóofi, but the inventory of possible singular / plural pairings is considerably larger in Keeraak (Segerer 2015).

¹⁴ Note that *ĩṅaay* ‘mother’ has two possible plural forms, *k-ĩṅaay* and *s-ĩṅaay*, and two possible agreement patterns in the plural (BK and S). This particularity is shared by *mpa* ‘father’, pl. *kʊ-mpa* or *sʊ-mpa*.

of only two nouns belonging to gender A/S, one noun belonging to gender J/K, and two nouns belonging to gender Ñ/U.

3. The prefixes involved in the class inflection of adnominals and pronouns

3.1. The standard form of class markers

Depending on the individual adnominals and pronouns inflected for class, class inflection may involve prefixes, suffixes, or a combination of both. Their standard forms (the only ones that have been mentioned so far in the literature on Jóola Fóoñi) are listed in (7).

(7) the standard form of class markers

class	class prefix (C-initial stems)	class prefix (V-initial stems)	class suffix ¹⁵
A	<i>a- ~ e-</i>	<i>∅-</i>	<i>-m</i> ¹⁶
BK	<i>ku- ~ kɔ-</i>	<i>(bu)k- ~ (bɔ)k-</i> ¹⁷	<i>-k</i>
E	<i>ɛ- ~ e-</i>	<i>y-</i>	<i>-y</i>
S	<i>si- ~ si-</i>	<i>s-</i>	<i>-s</i>
F	<i>fɔ- ~ fu-</i>	<i>f-</i>	<i>-f</i>
K	<i>kɔ- ~ ku-</i>	<i>k-</i>	<i>-k</i>
B	<i>bɔ- ~ bu-</i>	<i>b-</i>	<i>-b</i>
Ñ	<i>ñi- ~ ñi-</i>	<i>ñ-</i>	<i>-ñ</i>
U	<i>ɔ- ~ u-</i>	<i>w-</i>	<i>-w</i>
J	<i>ji- ~ ji-</i>	<i>j-</i>	<i>-j</i>

¹⁵ When not followed by another suffix (as for example *-ɛ ~ -e* ‘proximal’ or *-a ~ -ɛ* ‘distal’ in the inflection of demonstratives), class suffixes are optionally enlarged by a vowel *-ɔ ~ -u*.

¹⁶ Exceptionally, in the inflection of the suffixed definite article *-a/ɛ-CL*, the marker of class A is *-w*.

¹⁷ The variant *buk- ~ bɔk-* of the class BK prefix is found with some adnominals and pronouns only, and is never obligatory.

M	<i>mŭ-</i> ~ <i>mu-</i>	<i>m-</i>	<i>-m</i>
T	<i>ti-</i> ~ <i>ti-</i>	<i>t-</i>	<i>-t</i>
D'	<i>di-</i> ~ <i>ri-</i>	<i>d^{+ATR-}</i> ~ <i>r^{+ATR-}</i>	<i>-d</i> ~ <i>-r</i>
D	<i>di-</i> ~ <i>ri-</i> ~ <i>di-</i> ~ <i>ri-</i>	<i>d-</i> ~ <i>r-</i>	<i>-d</i> ~ <i>-r</i>
N	<i>ni-</i> ~ <i>ni-</i>	<i>n-</i>	<i>-n</i>

3.1. The *Ca*-variant of class prefixes

When we started analyzing our corpus of Jóola Fóoñi texts, one of the things that we did not expect was that, with consonant initial stems, the class prefixes of adnominals and pronouns sometimes occur in a form *Ca-* ~ *Cv-* that was not mentioned in previous descriptions, *C* being the consonant that constitutes the regular form of the standard prefix before vowel-initial stems. For example, the class E form of the anaphoric determiner ('the aforementioned X') occurs sometimes as *ε-cila* (standard form), and sometimes as *ya-cila* (*Ca*-variant).

In our corpus, the *Ca*-variant of class prefixes is not equally usual for all adnominals and pronouns, and the adjectival stem *-lejen* 'true' is the only one exclusively attested with the *Ca*-variant. In addition to *-lejen* 'true', the adnominals and pronouns with which the *Ca*-variant is particularly frequent in our corpus are the ordinal numerals, the indefinite determiner *-cεen* 'some', and the anaphoric determiner *-cila*.

The classes for which a *Ca*-variant of the class prefix is attested in our corpus are listed in (8). Given that, with most adnominals and pronouns, the *Ca*-variant is much less frequent than the standard variant, no particular significance should be given to the fact that the *Ca*-variant is not attested in all classes.¹⁸

¹⁸ Note however that a *Ca*-variant distinct from the standard form simply cannot be imagined for the prefix of class A, since the standard form of this prefix is *a-* ~ *v-* before consonants, and *Ø-* before vowels.

(8) standard form and *Ca*-variant of class prefixes

class	standard prefix with consonant-initial stems	<i>Ca</i> -variant	examples from the corpus
BK	<i>kɔ-</i> ~ <i>ku-</i>	<i>ka-</i> ~ <i>kɛ-</i>	<i>bok-an-a-k kɔ-cɪla</i> ~ <i>ka-cɪla</i> 'the aforementioned people'
E	<i>ɛ-</i> ~ <i>e-</i>	<i>ya-</i> ~ <i>yɛ-</i>	<i>mɪsɪŋ-ɛ-y ɛ-tɔŋand-ɛ-y</i> ~ <i>ya-tɔŋand-ɛ-y</i> 'the first mission'
S	<i>sɪ-</i> ~ <i>si-</i>	<i>sa-</i> ~ <i>sɛ-</i>	<i>sɪ-masɪm sa-lejɛn</i> 'true machines'
F	<i>fɔ-</i> ~ <i>fu-</i>	<i>fɑ-</i> ~ <i>fɛ-</i>	<i>fɔ-nak fɔ-cɛɛn</i> ~ <i>fɑ-cɛɛn</i> 'some day'
K	<i>kɔ-</i> ~ <i>ku-</i>	<i>ka-</i> ~ <i>kɛ-</i>	<i>ku-gonk-ɐ-k kɔ-cɪla</i> ~ <i>ka-cɪla</i> 'the aforementioned creepers'
B	<i>bɔ-</i> ~ <i>bu-</i>	<i>ba-</i> ~ <i>bɛ-</i>	<i>bɔ-nɔk-a-b bɔ-gabontɛn-a-b</i> ~ <i>ba-gabontɛn-a-b</i> 'the second palm wine'
U	<i>ɔ-</i> ~ <i>u-</i>	<i>wa-</i> ~ <i>wɛ-</i>	<i>w-aaf ɔ-cɪla</i> ~ <i>wa-cɪla</i> 'the aforementioned thing'
M	<i>mɔ-</i> ~ <i>mu-</i>	<i>ma-</i> ~ <i>mɛ-</i>	<i>mɔ-lɔba-a-m mɔ-cɪla</i> / <i>ma-cɪla</i> 'the aforementioned argument'

4. Analysis

The first hypothesis that comes to mind is that there might be some relationship between the *Ca*-variant of class prefixes and the fact that some nouns have a *Ca*- prefix. However, this hypothesis can be discarded for a number of reasons.

- (a) The examples in (8) show that the *Ca*-variant of class prefixes may express agreement with nouns whose prefix does not have a *Ca*-form.

- (b) Conversely, the *Ca*-variant of class prefixes is not particularly frequent with controller nouns having a *Ca*- prefix. Examples such as *ka-fɔl kɔ-cɪla* ‘the aforementioned cloth’ or *bɛ-gun bɔ-cɪla* ‘the aforementioned jinn’ abound in our corpus.
- (c) Finally, and most importantly, the prefixes of classes E, S, and U have variants *ya- ~ yɛ-*, *sa- ~ sɛ-*, and *wa- ~ wɛ-* that cannot be explained by a tendency for agreement prefixes to reproduce the prefixes of the controller nouns, since *ya- ~ yɛ-*, *sa- ~ sɛ-*, and *wa- ~ wɛ-* simply do not exist as noun prefixes.

In fact, a very important difference between *Ca*- prefixes as noun prefixes and *Ca*- prefixes as class prefixes is that the selection of a *Ca*-prefix is a lexical property of nouns, and with nouns, the *Ca*- prefixes are never interchangeable with *a*-less prefixes, whereas as agreement markers, the *Ca*- prefixes are always in free variation with an *a*-less prefix.

Doneux (1975) and Sambou (1979) argued that the *Ca*- prefixes of nouns can be analyzed, at least historically, as complex prefixes resulting from the addition of an ‘augment’ or ‘postprefix’ *-a-*. However, they did not put forward anything precise about the nature of this additional formative. Since we are aware of no concrete evidence supporting this hypothesis, we consider it as purely speculative. By contrast, our claim is that there is a very plausible explanation of the variation between standard prefixes and *Ca*-variants in the class inflection of adnominals and pronouns having a consonant-initial stem. The idea (which quite obviously cannot be extended to nominal prefixes) is that the morphological characteristics of participles (deverbal forms used in noun-modifier function) tend to contaminate the inflection of other types of noun modifiers.

Jóola Fóoŋi expresses subject relativization by means of participles that are used as noun modifiers exactly like underived adjectives such as *-ɛɛmɛk* ‘big’ or *-ɔnkɔl* ‘new’, but differ from them by their mixed morphological characteristics, and by their ability to be modified by the same objects and adjuncts as the other forms of the verb from which they derive.

The participles have a stem derived from a verb stem by the addition of a prefix *a- ~ v-*.¹⁹ Their suffixal inflection is identical to that of relative verb forms (which is consistent with the fact that participles are used for subject relativization), whereas their prefixal inflection is identical to the class inflection of other adnominals, with class prefixes preceding the formative *a-* that constitutes the distinctive mark of participles.

Since it is immediately followed by the formative *a- ~ v-* that characterizes participles, the class prefix of participles takes the form used in combination with vowel-initial stems. This is illustrated in (9) with the inflection of the participle of the verb *-jak* ‘be/become good’, which constitutes the Jóola Fóoñi equivalent of the English adjective *good*, since Jóola Fóoñi has no underived adjective expressing the same meaning.

- (9) class inflection of the participle *-a-jak-ε < -jak* ‘be/become good’
- | | | |
|--------|------------------------------|--|
| cl. A | <i>Ø-a-jak-ε</i> | <i>a-ñiul Ø-a-jak-ε</i> ‘good child’ |
| | CL.A-PTCP-be/become.good-R/F | |
| cl. BK | <i>k-a-jak-ε</i> | <i>ko-seek k-a-jak-ε</i> ‘good women’ |
| cl. E | <i>y-a-jak-ε</i> | <i>ε-yen y-a-jak-ε</i> ‘a good dog’ |
| cl. S | <i>s-a-jak-ε</i> | <i>si-bekaan s-a-jak-ε</i> ‘good bicycles’ |
| cl. F | <i>f-a-jak-ε</i> | <i>fö-rim f-a-jak-ε</i> ‘a good word’ |
| cl. K | <i>k-a-jak-ε</i> | <i>ko-nak k-a-jak-ε</i> ‘good days’ |
| cl. B | <i>b-a-jak-ε</i> | <i>bo-rək b-a-jak-ε</i> ‘a good work’ |
| cl. U | <i>w-a-jak-ε</i> | <i>w-aaf w-a-jak-ε</i> ‘a good thing’ |

¹⁹ This formative is certainly cognate with the relativizer *-an* illustrated in (1) to (3) above. In fact, the existence of a participle has not been acknowledged in the previous descriptions of Jóola Fóoñi, in which the participle is implicitly considered as the mere realization of an underlying sequence ‘relativizer + finite relative verb form’. For example, *ko-seek-a-k k-v-siil-e-ñaa* PL-woman(BK)-D-CLBK CLBK-PTCP-COOK-ICPL-R/F ‘the women who are doing the cooking’ is implicitly considered as the reduction of **ko-seek-a-k k-an ku-siil-e-ñaa* PL-woman(BK)-D-clBK clBK-REL-COOK-ICPL-R/F. This analysis is quite plausible in a diachronic perspective, but we do not retain it for a synchronic analysis of Jóola Fóoñi, since our corpus includes hundreds (if not thousands) of occurrences of participles, but not a single occurrence of a sequence ‘relativizer + finite relative verb form’ that would express subject relativization.

Starting from that, given that the participles fulfill the same noun modifying function as the other types of noun modifiers, one can easily imagine that speakers tend to overlook the possibility of segmenting the morphological material that precedes the verb root into two formatives, and to reanalyze the sequence ‘class prefix + participle marker’ as a single segment constituting an allomorph of the class prefixes as found in the inflection of other types of noun modifiers.

This reanalysis is certainly favored by the class A form. The point is that, in class A, the zero-form of the class prefix is perfectly regular, but the result is that, in class A, the distinction between two successive formatives (the class prefix and the participle marker) is not apparent.

Once speakers have reanalyzed the sequence of prefixes that characterizes participles as a single prefix with the status of class agreement marker, they may extend the use of this paradigm, in competition with the standard paradigm of class markers, to other adnominals whose stem begins with a consonant. A factor that may play a role here is that participles have a very high frequency in discourse, due to the fact that, in Jóola Fóoñi, most of the meanings commonly considered as typically adjectival (such as ‘good’) are expressed by means of participles.

As regards specifically the ordinal numerals, which are among the noun modifiers that are most commonly found with the *Ca*-variant of class prefixes, the spreading of the *Ca*-variant may be favored by the fact that Jóola Fóoñi has ordinal adjectives for the numbers between one and five only, and expresses the ordinal meaning with numerals above five by means of a periphrasis involving the participle of the verb *-kaan* ‘make’, as in (10).

- (10) *falaƒ fakaanom fotɔk dɪ kogaba*
 f-al-a-f f-a-kaan-ɔ-m fotɔk dɪ kɔ-gaba
 SG-river(F)-D-CLF CLF-PTCP-make-EP-R/F five and CLK-two²⁰
 ‘the seventh river’ lit. ‘the river making five and two’

²⁰ The form of class K taken by ‘two’ in this example is due to the fact that *f-al* ‘river’ (plural *k-al*) belongs to gender F/K.

5. Conclusion

In this article, we have described and analyzed a set of alternative forms of class prefixes found in the inflection of adnominals and pronouns of Jóola Fooñi, characterized by the presence of a vowel *a*. We have argued that the existence of the *Ca*-variant of the class prefixes is not related to the fact that some nouns have a *Ca* prefix, and results rather from the reanalysis of the prefixal sequence that characterizes participles as an alternative set of class prefixes whose use tends to be extended to other types of noun modifiers.

Abbreviations

Capital letters between parentheses immediately after the lexical gloss of nouns (for example, ‘woman(A)’, or ‘dog(E)’) indicate the agreement pattern associated to the form in question.

C – consonant	PTCP – participle
CL – class	REL – relativizer
CLX – class X	R/F – verb suffix characterizing verb forms specifically used in relativization and focalization
D – definite	SG – singular
EP – epenthetic vowel	SI – subject index
PL, pl. – plural	V – vowel

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