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Genders, inflectional classes of nouns, and the context-free use of "classes" in Jóola Fóoñi (Atlantic)

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Abstract. According to commonly agreed definitions, gender is a classification of nominal lexemes manifested in their behavior as agreement controllers, and a gender is a subset of nominal lexemes that have the same agreement behavior in all their inflected forms and in all the constructions in which they may act as agreement controllers. In addition to a relatively high number of genders, a major characteristic of the Niger-Congo systems traditionally designated as 'noun class systems' is the more or less complex relationship between genders and number inflection (singular vs. plural).

'Class' as this term is traditionally used in the description of Niger-Congo gender systems contains some ambiguities that may create confusion, but it can be retained as referring to (a) the division of noun *forms* (not *lexemes*!) into agreement classes, and (b) the inflectional feature of adnominals and pronouns whose variation may express agreement with a head noun or antecedent.

Defining 'class' as the inflectional feature by which adnominals and pronouns mark agreement with their head or antecedent does not necessarily imply that marking agreement with a noun present in the construction or suggested by the context is the only possible function of this inflectional feature. This is indeed crucial, since 'class' may also encode notions such as 'person', 'thing', 'place', 'time' or 'manner' independently of any contextual conditioning. It may even happen that some values of 'class' as an inflectional paradigm are never determined by agreement with a noun, since they do not correspond to any agreement class of noun forms, and consequently can only be found in context-free uses.

Jóola Fóoñi (an Atlantic language spoken in Senegal) provides a good example of this kind of complexification in Niger-Congo gender systems.

1. Introduction

Jóola Fooñi (aka Diola-Fogny), spoken in south-western Senegal, belongs to the Bak group of languages included in the Atlantic family. Two comprehensive descriptions are available: Sapir 1965 and Hopkins 1995. The investigation whose results are presented here has been carried in collaboration with Alain Christian Bassène (teacher at the Cheikh Anta Diop University of Dakar) and Boubacar Sambou (graduate student at the Cheikh Anta Diop University of Dakar). Most of the data are from our work on a corpus of more than ten hours of recorded naturalistic texts.

The paper is organized as follows. Section 2 consists of introductory remarks and terminological clarifications. Section 3 discusses the definition of "class" as an inflectional feature characterizing a set of words that may be the target of an agreement mechanism in which nouns act as controllers. Section 4 deals with the division of noun forms into agreement classes. Section 5 describes the system of nominal prefixes, their number value and relationship with the agreement system. Section 6 discusses the relationship between inflectional classes of nouns and genders. Section 7 analyzes the distinction between contextual and context-free uses of classes and shows that it is not always possible to explain

the context-free use of classes as the result of the ellipsis of an understood controller. Section 8 summarizes the conclusions.

2. Introductory remarks and terminological clarifications

In the same way as most Atlantic languages and many other languages across the other branches of Niger-Congo, Jóola Fóoñi has a particular type of organization of the relationship between nominal, adnominal and pronominal inflection traditionally described in terms of "noun classes".[1]

Even if the terminology I use is not exactly identical to that proposed by Güldemann and Fiedler (2017), I completely agree with them on the criticism of the notion of noun class inherited from the Bantu philological tradition, and of the way it is manipulated in Niger-Congo studies. In particular, I agree with them on the idea that the so-called 'noun class systems' found in various branches of Niger-Congo can only be described properly within a conceptual framework that articulates the notions of nominal inflection and agreement classes of nouns without trying to conflate them.

Jóola Fóoñi does not have one, but two grammaticalized systems of noun classification that are very closely related but nevertheless do not completely coincide: on the one hand, a division of nouns into *inflectional classes* according to the way they express the singular vs. plural distinction, on the other hand, a division into *agreement classes* according to the agreement marks they control on their modifiers or on the pronouns that resume them.

Moreover, this paper is intended to draw the attention to the fact that the adnominal and pronominal morphology involved in the expression of agreement with nouns also has functions that, synchronically, cannot be described in terms of agreement with a controller noun. This phenomenon, particularly prominent in Jóola Fóoñi, makes even more problematic the traditional notion of noun class, and cannot be accounted for properly if particular care is not paid to the definition of the notions manipulated in the description of such systems.

In order to clarify the situation, in this article, the use of 'class' as referring to a morphological feature will be strictly reserved to adnominals and pronouns. Moreover, the definition of 'class' as a morphological feature of adnominals and pronouns will be formulated so as to be compatible with functions of this feature other than the expression of agreement.

With reference to the classification of nouns, I will try to avoid 'class' without further specification, and to always specify 'inflectional class' or 'agreement class'.

In the terminology I propose, nouns are not inflected for 'class', but for number. Contrary to the inflectional affixes of adnominals and pronouns, the inflectional prefixes of nouns are not class prefixes, but number prefixes. Of course, I do not intend to negate the obvious existence of a close relationship between the prefixes of nouns and the division of nouns into agreement classes, but simply to discuss the type of relationship between nominal, adnominal and pronominal morphology that characterizes Jóola Fóoñi within the frame of a terminology minimizing the risk of misunderstandings in the description of its intricacies.

[1] In this paper, 'inflection' must be understood as referring to the part of morphology directly relevant to the formulation of syntactic rules, as opposed to derivation, which may operate on the syntactic properties of lexemes, but is not directly relevant to syntax in the sense that the conditioning of syntactic rules does not refer to the derivational history of lexemes.

3. ‘Class’ as an inflectional feature of adnominals and pronouns

3.1. Definition

In Jóola Fóoñi, most of the words that can be used adnominally and/or pronominally have an inflection that shows no immediate evidence of involving the combination of two or more features. The only simple way of describing this inflectional paradigm is to posit a single feature, for which the term ‘class’ is conventionally retained here, with fifteen possible values. The essential characteristic of the inflectional feature ‘class’ of adnominals and pronouns is that:

– in a ‘noun + modifier’ construction, if the modifier is inflected for class, it is the head noun that determines the value of the feature ‘class’ expressed by the modifier;
– when a word inflected for class is used pronominally in reference to an antecedent present in the context, it is the noun form in the role of antecedent that determines the value of the feature ‘class’ expressed by the pronoun.

Note that this definition of ‘class’ as an inflectional feature of adnominals and pronouns refers explicitly to its involvement in agreement with nouns as an essential property, but nevertheless does not imply that the value taken by the feature ‘class’ should always refer to a controller.

3.2. The labeling of the values of the feature ‘class’

The 15 possible values of the feature ‘class’ that constitute the inflection of most adnominals and pronouns in Jóola Fóoñi will be designated here as classes A, BK, E, S, B, U, F, K, J, M, Ñ, T, D, D´ and N. These labels evoke the phonological shape of the corresponding affixes, and thus have a purely mnemonic justification.[2] It might be confusing to use semantically motivated labels, due to the high degree of semantic heterogeneity of most of the agreement classes of noun forms, and in the present state of the reconstruction of Proto-Atlantic, 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 phonetically motivated labels.

The labels D and D´ call for the following comment. Since the acute accent is used in Jóola orthography to mark +ATR vowels, D and D´ are convenient labels for two classes whose markers are segmentally identical, and differ in that the markers of class D´ are inherently +ATR, and impose the +ATR feature to the stems to which they combine, whereas the markers of class D, like all the other class markers, are inherently –ATR and undergo vowel harmony. This has been a major source of confusion in the previous analyses of Jóola Fóoñi, none of which provides a proper analysis of the distinction between these two classes.

[2] Like the other agreement systems found across the Atlantic family, the agreement system of Jóola Fóoñi is far for been perfectly alliterative. For example, the exponents of class A may be **a** (as in adjectives), **w** (as in the definite article), or **m** (as in demonstratives). In such cases, the choice of a label was mainly motivated by the concern for avoiding ambiguity with the other classes.

3.3. Illustrations

The relativizer (a grammatical word that introduces non-subject relatives) has the morphological structure CL-**an** and shows the following paradigm, with 14 distinct forms only, due to the use of the same form for classes BK and K:

(1) The class inflection of the relativizer

class	relativizer
A	**Ø-an**
BK	**k-an**
E	**y-an**
S	**s-an**
B	**b-an**
U	**w-an**
F	**f-an**
K	**k-an**
J	**j-an**
M	**m-an**
Ñ	**ñ-an**
T	**t-an**
D	**d-an ~ r-an**
D′	**d-ɐn ~ r-ɐn**
N	**n-an**

When a relative clause introduced by the relativizer CL-**an** modifies a noun, the value of the feature 'class' is determined by the noun form fulfilling the role of head (and conversely, each value of the feature 'class' selects a subset of noun forms as the potential heads of the relative clause).[3] The reason why (2) illustrates only eleven of the fifteen classes that constitute the inflection of the relativizer will become apparent later.

(2) The agreement of the relativizer with a head noun

a-sɛɛk-a-w	**Ø-an**	**ɪ-jɔk-ɔ-m**	'the woman I saw'	(cl.A)
NP-woman-D-CL	CL-REL	sI:1SG-see-EP-ACT		
kɔ-sɛɛk-a-k	**k-an**	**ɪ-jɔk-ɔ-m**	'the women I saw'	(cl.BK)
ɛ-yɛn-ɛ-y	**y-an**	**ɪ-jɔk-ɔ-m**	'the dog I saw'	(cl.E)
sɪ-yɛn-a-s	**s-an**	**ɪ-jɔk-ɔ-m**	'the dogs I saw'	(cl.S)
bu-bɐɐr-ɐ-b	**b-an**	**ɪ-jɔk-ɔ-m**	'the tree I saw'	(cl.B)
u-bɐɐr-ɐ-w	**w-an**	**ɪ-jɔk-ɔ-m**	'the trees I saw'	(cl.U)
f-al-a-f	**f-an**	**ɪ-jɔk-ɔ-m**	'the river I saw'	(cl.F)
k-al-a-k	**k-an**	**ɪ-jɔk-ɔ-m**	'the rivers I saw'	(cl.K)
jɪ-bɛcɛl-a-j	**j-an**	**ɪ-jɔk-ɔ-m**	'the palm tree I saw'	(cl.J)
mɔ-bɛcɛl-a-m	**m-an**	**ɪ-jɔk-ɔ-m**	'the palm trees I saw'	(cl.M)
ñɪ-wɔj-a-ñ	**ñ-an**	**ɪ-jɔk-ɔ-m**	'the chain I saw'	(cl.Ñ)

[3] It is important to emphasize that, at this point, we are dealing with noun *forms* (not with *lexemes*), which means in particular that the singular and the plural of a given noun count as two distinct forms whose relationship is not considered at this stage of the analysis.

The same feature ‘class’ with the same possible values (and the same relationship with subsets of noun forms as potential controllers in an agreement mechanism) characterizes the definite article suffixed to nouns (as can be seen in (2), where nouns are in the definite form), various types of noun modifiers (adjectives, demonstratives, etc.), the third person pronoun, the third person subject and non-subject indexes, and the ostensive (a predicative word corresponding to English ‘here is *x*’).

For example, the ostensive has the morphological structure CL-**ɔɔ**-CL, and agrees with its argument as illustrated in (3):

(3) The agreement of the ostensive with its argument

a-sɛɛk-a-w	**Ø-ɔɔ-mʊ**	‘here is the woman’	(cl.A)
NP-woman-D-CL	CL-OST-CL		
kʊ-sɛɛk-a-k	**(bʊ)k-ɔɔ-kʊ**	‘here are the women’	(cl.BK)
ɛ-yɛn-ɛ-y	**y-ɔɔ-yʊ**	‘here is the dog’	(cl.E)
sɪ-yɛn-a-s	**s-ɔɔ-sʊ**	‘here are the dogs’	(cl.S)
bu-bɐɐr-ɐ-b	**b-ɔɔ-bʊ**	‘here is the tree’	(cl.B)
u-bɐɐr-ɐ-w	**w-ɔɔ-wʊ**	‘here are the trees’	(cl.U)
f-al-a-f	**f-ɔɔ-fʊ**	‘here is the river’	(cl.F)
k-al-a-k	**k-ɔɔ-kʊ**	‘here are the rivers’	(cl.K)
jɪ-bɛcɛl-a-j	**j-ɔɔ-jʊ**	‘here is the palm tree’	(cl.J)
mʊ-bɛcɛl-a-m	**m-ɔɔ-mʊ**	‘here are the palm trees’	(cl.M)
ñɪ-wʊj-a-ñ	**ñ-ɔɔ-ñʊ**	‘here is the chain’	(cl.Ñ)

4. The division of noun forms into agreement classes

Noun forms divide into subsets according to the value of the feature ‘class’ they impose to the targets of the agreement mechanisms they control.

Of the 15 values of the feature ‘class’ manifested in the inflection of adnominals and pronouns, 11 correspond in a non-marginal way to subsets of noun forms that are their potential controllers: A, BK, E, S, B, U, F, K, J, M, Ñ. These are precisely the values of the feature ‘class’ that were retained for the illustrations given in the previous section.

The involvement of classes T and D´ in agreement mechanisms controlled by nouns is very marginal. In principle, Jóola Fóoñi has noun forms that can act as the head or antecedent of adnominal or pronominal forms marked for one of these two classes (**tɪn** or **tan** ‘place conceived as delimited in a precise way’, and **din** or **dɐn** ‘place conceived as an interior’), but they are extremely rare in discourse. The corpus includes just one occurrence of **tɪn**, two occurrences of **tan**, and no occurrence of **din** or **dɐn** at all, whereas class T and class D´ forms of adnominals and pronouns are extremely frequent. This question will be resumed in section 7.

Finally, classes D and N are never involved in agreement mechanisms controlled by nouns.

The relationship between the inflectional prefixes of nouns and the division of noun forms into agreement classes will be described in 5.

5. The inflectional prefixes of nouns

5.1. The segmentation of noun forms as 'inflectional prefix + stem'

In the noun forms of Jóola Fóoñi, the usual procedures of morphological analysis are most of the time sufficient to isolate a prefix whose inflectional nature follows from its relationship to the agreement system. With the exception of the noun forms including the prefix **k-** and of those devoid of overt prefix, the general rule is that forms including the same prefix belong to the same agreement class.

The recognition of an inflectional prefix is particularly easy in the case of nouns whose prefix varies to express the *singular* vs. plural distinction.

When this is not the case, the recognition of a prefix related to the agreement system can most of the time be justified by comparison with semantically related lexemes. For example, **ja-sʊʊñ** 'theft' (agreement class J) cannot vary in number, but the recognition of a prefix **ja-** is justified by the existence of a verb stem **-sʊʊñ** 'steal', and its inflectional nature follows from the fact that a prefix **ja-** can be isolated in a similar way in other nouns belonging to the same agreement class J.

There is however a limited number of cases in which the recognition of a nominal prefix entirely relies on analogy with other nouns showing the same initial and the same agreement properties. For exemple, **sambʊn** 'fire' cannot be segmented on a purely morphological basis, and the only justification for the analysis of this form as **s-ambʊn** is that it accounts for the fact that this form belongs to the same agreement class S as noun forms in which it is possible to isolate a plural prefix **s-** alternating with a singular prefix **y-**.

Abstracting from phonologically predictable variations, it is possible to recognize 19 prefixes of nouns related to the agreement system, two of which have an extremely marginal status. Note that, as will become clear in 5.2, the precise number of inflectional prefixes to be recognized in the description of Jóola Fóoñi relies on analytical decisions that are not always perfectly uncontroversial. In the following section, I present what I consider the simplest and most consistent account of this inventory, but I am aware that some of my decisions can be challenged, in particular those about the prefixes **k-**, **ka-** and **Ø-**. Interestingly, there is no such problem with the inventory of class values in the inflection of adnominals and pronouns, or of agreement classes of noun forms.

5.2. Inventory and morphosyntactic properties of nominal prefixes

With the exception of **d´-** (cf. 5.2.7), the nominal prefixes are –ATR, and when they include vowels, their vowels acquire the +ATR feature in contact with +ATR stems. They can be divided into 4 types according to their other morphophonological properties.

*5.2.1. The nominal prefix **a-***

The prefix **a-** is only found with human nouns whose stem begins with a consonant. A zero prefix is found with the human nouns that have a vowel initial stem, take the same plural prefix and have the same agreement properties (cf. for example **a-sɛɛk** 'woman' vs. **Ø-ɪñaay** 'mother'), which suggests analyzing this zero prefix as a phonologically conditioned variant of **a-**. However, this analysis is undermined by the term **papa** ~ **paapa** ~ **paam** 'father', which has the same agreement properties as the other human nouns, and consequently can

only be analyzed as having a lexically determined zero prefix.[4] Consequently, the possibility of a zero prefix which is not a predictable variant of the regular prefix **a-** must be recognized for the human nouns belonging to agreement class A.

*5.2.2. The nominal prefixes **ɛ-** and **ʊ-***

The form of these two prefixes is V before consonant alternating with a semi-vowel before vowel, cf. for example **ɛ-yɛn** 'dog', **e-suk** 'village' vs. **y-ɔn** 'crocodile' for the prefix **ɛ-**, and **ʊ-rʊŋ** 'roads', **u-bɐɐr** 'trees' vs. **w-ɯt** 'rice fields' for the prefix **ʊ-**.

*5.2.3. The nominal prefixes **k-**, **s-**, **f-**, **b-**, **ñ-**, **j-** and **m-***

The form of these prefixes is C before vowel alternating with 'C + closed vowel' before consonant. The vowel in question can be predicted according to a simple and phonetically motivated rule (**ɪ ~ i** after coronals, **ʊ ~ u** after labials or velars), which justifies positing C as their underlying form, and analyzing the vowel as inserted in order to satisfy constraints on syllable structure, cf. for example **sɪ-yɛn** 'dogs', **si-suk** 'villages', **s-ɔn** 'crocodiles' with the prefix **s-**, and **fʊ-lɛɛŋ** 'moon, month', **fu-rɐɐr** 'play', **f-al** 'river' with the prefix **f-**.

*5.2.4. The nominal prefixes **ka-**, **fa-**, **ba-**, **ja-** and **ma-**.*

In addition to ATR harmony (cf. for example **ka-sɔnd** 'roof' vs. **kɐ-sit** 'feather'), **ka-** may be analyzed as having an allomorph **k-** before vowel (as in **k-eel** 'year', **k-een** 'cock'), since as regards variation in number, the forms in question do not behave like the other forms in which a prefix **k-** can be isolated, but like the forms showing a prefix **ka-**. The point is that **ka-** is only attested with stems beginning with a consonant, and forms such as **k-eel** 'year' or **k-een** 'cock' are singular forms with a corresponding plural in **ʊ-** (**w-eel** 'years', **w-een** 'cocks'), like forms in which **ka-** combines with a consonant-initial stem, whereas **k-** is otherwise a plural prefix.

Such a problem does not arise for the other C**a-** prefixes, since the only one attested in a singular vs. plural contrast is **ba-** (cf. **ba-caac** 'bed' pl. **ʊ-caac**), and the number value it expresses is the same as that expressed by **b-**.

It is tempting to imagine that, originally, the C**a-** prefixes were analyzable as a sequence of two morphemes: C-**a-**. However, I am aware of no evidence suggesting a hypothesis about the original function of this **-a-**, and in a synchronic analysis, there isn't the slightest justification for recognizing it as a distinct morpheme.

*5.2.5. The nominal prefix **bʊk-***

This is the only nominal prefix consisting of a CVC syllable, and it is found in one noun form only: **bʊk-an** 'persons', plural of **Ø-an** 'person'.

*5.2.6. The nominal prefix **Ø-***

Ø- is mainly found as the singular prefix of non-human nouns whose plural prefix is **s-**, such as **Ø-jimukor** (pl. **si-jimukor**) 'lion'). Most of them are borrowed nouns, in which the zero

[4] For 'father', there is also the variant **a-mpa**, with the regular prefix for human nouns whose stem begins with a consonant.

prefix is often in free variation with the prefix **ɛ-**. This variation has no incidence on the agreement properties or plural formation of the nouns in question.[5]

As already signaled in 5.2.1, a zero prefix is also found with a few human nouns whose plural prefix is **bʊk-** or **k-**, and it is not always possible to analyze it as a mere variant of the regular prefix **a-** of human nouns.

*5.2.7. The nominal prefixes **d´-** and **t-***

The nominal prefixes **d´-** and **t-** occur in just two synonymous nominal forms each. Moreover, the two nominal forms in question (**d-in** or **d-ɐn** 'place conceived as an interior' and **t-ɪn** or **t-an** 'place conceived as delimited with precision') are extremely rare in discourse, as already signaled in 4.

5.2.8. Noun prefixes, number values and agreement

If the prefix **ka-** is analyzed as having an allomorph **k-** with vowel-initial stems (cf. 5.2.4), the relationship between noun prefixes and number values can be described as follows:

- whenever they occur in nouns lending themselves to variation in number, **a-**, **ɛ-**, **Ø-**, **f-**, **ka-**, **b-**, **ba-**, **ñ-** and **j-** express singular;
- whenever they occur in nouns lending themselves to variation in number, **bʊk-**, **k-**, **s-**, **ʊ-** and **m-** express plural;
- **fa-**, **ja-**, **ma-**, **t-** and **d´-** are exclusively attested in nouns that do not lend themselves to number variation.

As regards the relationship between noun prefixes, number values and agreement classes, three prefixes raise a particular problem: **Ø-**, **k-** and **s-**.

Ø- is found in two subsets of noun forms: a subset of singular forms belonging to agreement class E corresponding to plural forms marked with **s-** (such as **Ø-jimukor** pl. **si-jimukor** 'lion'), and a subset of singular forms belonging to agreement class A corresponding to plural forms marked with **bʊk-** or **k-** (**Ø-an** pl. **bʊk-an** 'human being', **Ø-ɪñaay** pl. **k-ɪñaay** 'mother'). One may therefore distinguish **Ø$_1$-** alternating with the plural prefixes **bʊk-** or **k-** from **Ø$_2$-** alternating with the plural prefix **s-**.

k- is shared by two subsets of noun forms: a subset of plural forms belonging to agreement class BK and corresponding to singular forms marked with **a-** (such as **kʊ-sɛɛk** (cl. BK) 'women', singular **a-sɛɛk** (cl. A)), and a subset of plural forms belonging to agreement class K and corresponding to singular forms marked with **f-** (such as **kʊ-nak** 'days' (cl. K), singular **fʊ-nak** (cl. F)). One may therefore distinguish two homonymous prefixes, **k$_1$-** corresponding to the singular prefix **a-**, and **k$_2$-** corresponding to the singular prefix **f-**. Note that the rejection of the analysis of **k-** as a possible allomorph of **ka-** with vowel-initial stems would imply the recognition of yet another variety of **k-** expressing singular and alternating with the plural suffix **ʊ-**.

As regards **s-**, the general rule is that plural forms in **s-** correspond to singular forms in **ɛ-** or **Ø-** belonging to agreement class E (cf. for example **sɪ-yɛn** 'dogs', singular **ɛ-yɛn**), but there

[5] Among loan words, the exceptions to the general rule according to which the prefix **a-** is added to the singular form of human nouns whose stem begins with a consonant are extremely rare. By contrast, non human nouns are very often left without any overt prefix.

are two exceptions: **sʊ-mpa** ‘fathers’ and its variants (**sɪ-paapa**, etc.), and **s-ɪñaay** ‘mothers’.[6] The corresponding singular forms have the regular prefixes of human nouns **a-** or zero and belong to agreement class A. Moreover, the plural of these two nouns may optionally be marked by **k-** instead of s- (**kʊ-mpa** ‘fathers’, **k-ɪñaay** ‘mothers’), and even when their plural is marked by **s-**, it may optionally control BK agreement or S agreement. On may therefore introduce a distinction between **s_1-** in plural forms that can only behave as members of agreement class S, and **s_2-** varying freely with **k_1-** in plural forms that can behave optionally as members of the S or BK agreement classes.

The prefixes other than **Ø-**, **k-** and **s-** unequivocally determine the agreement class to which the noun forms they mark belong.

The 19 noun prefixes are recapitulated in (4), with the indication of the agreement classes with which they are compatible, and of the number values they can express. ‘–’ in the ‘number value’ column indicates that the prefix in question is only attested in nouns that do not have a *singular* vs. *plural* contrast.

(4) nominal prefixes, agreement classes and number values

nominal prefixes	agreement classes	number values
a-	A	sg.
$Ø_1$-	A	sg.
ɛ-	E	sg.
$Ø_2$-	E	sg.
f-	F	sg.
fa-	F	–
ka-	K	sg.
b-	B	sg.
ba-	B	sg.
ñ-	Ñ	sg.
j-	J	sg.
ja-	J	–
bʊk-	BK	pl.
k_1-	BK	pl.
s_1-	S	pl.
s_2-	S~BK	pl.
k_2-	K	pl.
ʊ-	U	pl.
m-	M	pl.
ma-	M	–
t-	T	–
d´-	D´	–

[6] The irregular variant **sʊ-** of the prefix **s-** in **sʊ-mpa** can be explained as follows. The stem of this form begins with a sequence **mp**, which is very exceptional in Jóola Fooñi. Consequently, the prefix does not constitute a syllable by itself (since **m** is syllabified as the coda of the preceding syllable), and its vowel undergoes the influence of the labial nasal in coda position.

6. Inflectional classes of nouns and genders

6.1. General remarks on the number inflection of nouns

In Jóola Fóoñi, most nominal lexemes are compatible with a pair of prefixes expressing the *singular* vs. *plural* contrast. However, there is a sizeable minority of nominal lexemes that do not have variation in number. Some of them show a prefix which is not attested at all with a number value, others show a prefix that expresses a number value (either singular or plural) with other lexemes. For example, **m-ɔf** 'ground', **s-ambʊn** 'fire' and **bʊ-nʊk** 'palm wine' do not show variation in number. The prefix of **m-ɔf** 'ground' and **s-ambʊn** 'fire' is found with other nouns as a plural prefix, whereas the prefix of **bʊ-nʊk** 'palm wine' is found with other nouns as a singular prefix. By contrast, the prefix **ma-** of **ma-lɛgɛn** 'truth' is not attested with a number value.

Cobbinah & Lüpke (2014) have argued that the number category in Atlantic languages is better described as having three values for a subset of nouns that typically includes nouns referring to fruits, small objects such as pearls, feathers, seeds, and small animals (such as insects or rodents). The 'uncountable plurals' they propose to recognize are traditionally analyzed as collective nouns derived by gender shift. At least for Jóola Fóoñi, I am aware of no property of collective nouns that would support re-analyzing them in terms of a third value of the inflectional feature 'number'.

6.2. The classification of nominal lexemes inflected for number

Taking into account both number prefixes and agreement classes, it is possible to establish the following inventory of 14 singular / plural pairings:

(5) the singular / plural pairings

singular		plural		examples		
Ø-	(A)	**bʊk-**	(BK)	**Ø-an**	pl. **bʊk-an**	'person'
Ø-	(A)	**k-**	(BK)	**Ø-ɪñaay**	pl. **k-ɪñaay**	'mother'
a-	(A)	**k-**	(BK)	**a-sɛɛk**	pl. **kʊ-sɛɛk**	'woman'
a-	(A)	**s-**	(S~BK)	**a-mpa**	pl. **sʊ-mpa**	'father'
Ø-	(A)	**s-**	(S~BK)	**Ø-ɪñaay**	pl. **s-ɪñaay**	'mother'
ɛ-	(E)	**s-**	(S)	**e-suk**	pl. **si-suk**	'village'
Ø-	(E)	**s-**	(S)	**Ø-sindo**	pl. **si-sindo**	'home'
b-	(B)	**ʊ-**	(U)	**bʊ-rʊŋ**	pl. **ʊ-rʊŋ**	'road'
ba-	(B)	**ʊ-**	(U)	**ba-caac**	pl. **ʊ-caac**	'bed'
f-	(F)	**k-**	(K)	**fʊ-lɛɛŋ**	pl. **kʊ-lɛɛŋ**	'moon, month
ka-	(K)	**ʊ-**	(U)	**ka-sɔnd**	pl. **ʊ-sɔnd**	'roof'
j-	(J)	**m-**	(M)	**jɪ-bɛcɛl**	pl. **mʊ-bɛcɛl**	'palm tree'
j-	(J)	**k$_2$-**	(K)	**ji-cil**	pl. **ku-cil**	'eye'
ñ-	(Ñ)	**ʊ-**	(U)	**ñɪ-wʊj**	pl. **ʊ-wʊj**	'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), nine genders can be recognized: A/BK, A/S~BK, E/S, F/K, J/M, J/K, B/U, K/U and Ñ/U.[7]

[7] Sapir (1969: 64) mentions the existence of two additional genders, F/Ñ and B/Ñ, expressing the feature 'augmentative' in alternation with the other genders. However, Hopkins (1995) does not confirm the existence of

Three out of the nine genders listed above have a marginal status. The first one is gender A/S~BK, with just two members, a-**mpa** pl. **sʊ-mpa** 'father' and **ɪñaay** pl. **s-ɪñaay** 'mother', and these two nouns can also be treated as belonging to gender A/BK, with plural forms **kʊ-mpa** and **k-ɪñaay** controlling BK agreement. Moreover, as shown in (6), even when they take the plural prefix **s-**, BK agreement is possible.

(6) **ɐmusɐɐw anagɔɔ matɪ akaanʊt jak matɪ lɛkɔɔlɛy, kʊmpaɔɔ rɪ kujoo kʊjʊʊm, wɔla sɪñaayɔɔ rɪ kujoo kʊjʊʊm.**
'If the teacher beats him (the child) because he didn't behave properly as regards school, his fathers come to protest, or his mothers come to protest.'

ɐ-musɐ˗ɐ-w	**a-nag-ɔɔ**	**m-atɪ**	**a-kaan-ʊt**	**jak**	
NPa-teacher-D-CLa	sI:CLa-beat-I:CLa	CLm-GEN	sI:CLa-do-NEG	(sI:CLd)be.good	
m-atɪ	**lɛkɔɔl-ɛ-y,**	**kʊ-mpa-ɔɔ**	**rɪ**	**ku-jɐ˗u**	**kʊ-jʊʊm,**
CLm-GEN	school-D-CLe	NPk_1-father-I:CLa	SEQ	sI:CLbk-come-CTRP	sI:CLbk-stand.up
wɔla	**s-ɪñaay-ɔɔ**	**rɪ**	**ku-jɐ˗u**	**kʊ-jʊʊm.**	
or	NPs-mother-I:CLa	SEQ	sI:CLbk-go-CTRP	sI:CLbk-stand.up	

The second marginal gender is gender J/K, whose sole member is **ji-cil** 'eye'. The explanation of this irregularity is probably that **ji-cil** was originally a diminutive corresponding to the plural form **mu-cil**. However, in the present state of the language, **ji-cil** has lost its diminutive value, replacing the old singular form of 'eye', whereas in the plural, the original form **ku-cil** has been maintained, and **mu-cil** has maintained its diminutive meaning.

Finally, gender Ñ/U is also statistically marginal. I am aware of only two nouns belonging to this gender: **ñɪ-wʊj** 'chain' and **ñɪ-kʊl** 'mourning').

To conclude, Jóola Fóoñi has six major (non-marginal) genders: A/BK, E/S, F/K, J/M, B/U and K/U. Three of them conflate two or three inflectional classes of nouns each (A/BK, E/S and B/U), whereas the other three (F/K, K/U and J/M) are morphologically homogeneous.

Gender A/BK can be designated as the human gender, since in Jóola Fóoñi, the coincidence between this grammatical gender and the semantic class of human nouns is almost perfect. In addition to **a-mpa** 'father' and **ɪñaay** 'mother' (see 5.2.8), the only exception I am aware of is (**a-**)**fulaŋ** 'pair', borrowed from Mandinka, which is optionally treated as a gender A/BK or E/S noun.

Gender J/M can be designated as the diminutive gender, since most of the nouns found in this gender are semantically the diminutive of nouns found in the other genders with the same stem (cf. **a-ñɪul** 'child' pl. **kʊ-ñiil** (gender A/BK) vs. **jɪ-ñɪul** 'baby' pl. **mʊ-ñɪul** (gender J/M)).

By contrast, the semantic heterogeneity of the other genders excludes using semantically motivated labels.

(7) the major genders

gender	number inflection	examples		
A/BK	**Ø- / bʊk-**	**Ø-an**	pl. **bʊk-an**	'person'
	Ø- / k-	**Ø-ɪñaay**	pl. **k-ɪñaay**	'mother'
	a- / k-	**a-sɛɛk**	pl. **kʊ-sɛɛk**	'woman'
E/S	**ɛ- / s-**	**e-suk**	pl. **si-suk**	'village'
	Ø- / s-	**Ø-sindo**	pl. **si-sindo**	'home'

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such genders, and they are not attested in my data either. The only case of gender alternation expressing augmentative I are aware of is the E/S > F/K alternation (as in **ɛ-yɛn** pl. **sɪ-yɛn** 'dog' > **fʊ-yɛn** pl. **kʊ-yɛn** 'big dog').

B/U	**b- / ʊ-**	**bʊ-rʊŋ**	pl. **ʊ-rʊŋ**	‘road’
	ba- / ʊ-	**ba-caac**	pl. **ʊ-caac**	‘bed’
F/K	**f- / k-**	**fʊ-lɛɛŋ**	pl. **kʊ-lɛɛŋ**	‘moon, month
K/U	**ka- / ʊ-**	**ka-sɔnd**	pl. **ʊ-sɔnd**	‘roof’
J/M	**j- / m-**	**jɪ-bɛcɛl**	pl. **mʊ-bɛcɛl**	‘oil palm’

Note that the distinction between genders B/U and K/U is neutralized in the plural (both in terms of agreement classes and number prefixes), and that the same class K expresses plural agreement in gender F/K, and singular agreement in gender K/U.

6.3. Nominal lexemes with no singular / plural contrast

As illustrated in (8), each of the agreement classes including singular or plural forms of non-human nouns that have a *singular* vs. *plural* contrast also includes nouns that have no *singular* vs. *plural* contrast.

(8) examples of nominal lexemes devoid of number contrast

cl.E prefix **ɛ-** **ɛ-maanɔ** ‘rice’ (collective)
e-rus ‘wind’

prefix **Ø-** **Ø-tɛntaam** ‘ground’
Ø-duniɐ ‘world’

cl.S prefix **s-** **s-ambʊn** ‘fire’
sɪ-naŋ ‘cooked rice’

cl.F prefix **f-** **fʊ-baj** ‘wealth’
fu-rɐɐr ‘play’

prefix **fa-** **fɐ-sim** ‘blood’
fa-kɔɔr ‘smoke’

cl.K prefix **k₂-** **kʊ-manɪŋaay** ‘the Mandinka language’
ku-gɐm ‘advice’

prefix **ka-** **ka-pɔr** ‘dust’
ka-mɔɔr ‘sleep’

cl.B prefix **b-** **bʊ-nʊk** ‘palm wine’
bʊ-fal ‘hair’ (collective)

prefix **ba-** **ba-paalaay** ‘friendship’
ba-jangata ‘peanuts’ (collective)

cl.Ñ prefix **ñ-** **ñɪ-fañaŋ** ‘gums’
ñ-ɔnk ‘cold’

cl.U prefix **ʊ-** **ʊ-aaf** ‘thing’
ʊ-at ‘waste’

cl.J prefix **j-** **ji-boom** ‘dance’

prefix **ja-** **ja-ŋɔr** ‘football’
ja-lɛɛb ‘fishing’

cl.M prefix **m-** **m-ɔf** ‘ground’
mʊ-kaanaay ‘manner of doing’

prefix **ma-** **ma-lɛgɛn** ‘truth’
ma-fɔs ‘grass’

Moreover, the agreement classes T and D´ include only nouns that have no *singular* vs. *plural* contrast.

cl.T prefix **t-** **t-ɪn** ‘place (conceived as delimited with some precision)’

cl.D´ prefix **d´-** **d-in** ‘place (conceived as an interior)’

7. Contextual and context-free uses of the feature ‘class’

7.1. The contextual use of the feature ‘class’

The notion of contextual use of class as an inflectional feature of adnominals and pronouns applies first to situations in which a form inflected for class agrees with a controller within the frame of a construction characterized by agreement between a controller and a target occupying each a particular function in the construction in question.

It may also occur that the value of the feature ‘class’ is interpreted as referring to a controller present in the context, but with which the form inflected for class does not have a particular syntactic relationship.

It is still possible to recognize a contextual conditioning of the value expressed by the inflectional feature ‘class’ in situations in which no potential controller is present, but the context suggests an understood controller with reference to which it is possible to imagine a plausible interpretation of the value expressed by the feature ‘class’.

For example, (9) is a free relative, i.e., a relative clause without any overt head noun, but the B value of the feature ‘class’ expressed by the distributive **b-anɔɔsan** and the relativizer **b-an** can only be explained as referring to the noun **bʊ-rɔk** (class B) ‘work’, which could be inserted before the relativizer without changing anything in the interpretation: **bʊrɔk banɔɔsan ban ʊjɛɛm b’ɛɛrɔkɛy**, lit. ‘any work that you are going to work’. Consequently, in this example, class B can be analyzed as expressing agreement with an unexpressed (or elided) controller, which can, however, be selected among the potential controllers of class B forms due to the presence of the verb ‘work’ in the context.

(9) **banɔɔsan ban ʊjɛɛm b’ɛɛrɔkɛy**
‘any work that you are going to do’

b-anɔɔsan	**b-an**	**ʊ-jaˬɛ-m**	**bɛˬɛ-rɔk-ɛ-y**
CLb-DISTR	CLu-REL	sI:2SG-go-INACP-ACT	DIR-INFe-work-D-CLe

Similarly, in (10), none of the nouns present in the context is a potential controller of the class F value expressed by the genitival linker **f-atɪ**, but the interpretation would not change if **fʊ-nak** (class F) 'day' were introduced in the role of head (**fʊnakaf fatɪ kajɔm** lit. 'the day of tomorrow' > 'the following day'). In this case, what conditions the possibility of leaving the head noun unexpressed is the presence of **kajɔm** 'tomorrow' in the role of modifier, and also the fact that temporal indications are expected in the description of a sequence of events.

(10) **... fatɪ kajɔm, dɪ kʊlaañ.**
'... and the following day, they returned there.'
... f-atɪ kajɔm, dɪ kʊ-laan.
CLf-GEN tomorrow SEQ sI:CLbk-return

In (11), exactly as in (10), the class F form of the genitival linker cannot be interpreted as referring to a noun present in the context. However, the fact that **fatɪ bɛɛ buyebo** is the object of **-sancɛn** 'speak' makes it possible to retrieve **fʊrʊm** 'word, speech' as the understood (or elided) controller; crucially, the interpretation would not be exactly the same if **fʊrʊmaf** 'word, speech' were inserted immediately before **fatɪ** (cf. **fʊrʊmaf fatɪ bɛɛ buyebo** lit. 'words of toward marriage' > 'marriage project').

(11) **Kaarɪ dɪ Kaarɪ kɔɔ kɔndɪ basangab yɔk kʊsankɛn fatɪ bɛɛ buyebo.**
'So and so have a love affair to the point that they are discussing a marriage project.'

Kaarɪ dɪ Kaarɪ k-ɔɔ k-ɔn-dɪ ba-sang-a-b yɔk
so.and.so and so.and.so CLbk-PRO sI:CLbk-be-PREP NPba-love.affair-D-CLb until
kʊ-sancɛn f-atɪ bɛɛ bu-yebo.
sI:CLbk-speak CLf-GEN DIR NPb-marriage

It is also **fʊrʊm** 'word, speech' that must be considered as the understood (or elided) controller in (12). What makes it possible to select **fʊrʊm** as the unexpressed controller of the class F form of the interrogative CL-**ɛy** 'which?' in (12) is that this sentence was uttered within the frame of a debate in which the interlocutors exchanged arguments. In such a context, what is expected to be added is a reply to what has just been said.

(12) **Fɛy nʊbajɛ bɛɛ kabɛnɛn ?**
'What do you have to add?'
F-ɛy nʊ-baj-ɛ bɛɛ ka-bɛnɛn?
CLf-which sI:2SG-have-ACT DIR INFka-add

To conclude on this point, the possibility of analyzing adnominals or pronouns inflected for class as the targets of agreement with a noun in the role of controller is not limited to situations in which the controller and the target are in a particular type of syntactic relationship, or even to situations in which the controller is present in the context without having a particular type of syntactic relationship with the target. The controller may also be a noun which is not present at all, which the speaker decided to leave unexpressed since the context gives indications that make it possible to select it among the set of potential controllers of the class form in question.

7.2. The context-free use of the feature ‘class’

Forms inflected for class are not only found in contexts in which they can be analyzed as the target of an agreement mechanism controlled by a noun present in the context of suggested by the context. They may also have context-free uses in which no controller is present, and the particular context in which they are uttered plays no role in their interpretation.

For example, eleven out of the fifteen forms that constitute the inflection of the relativizer CL-**an** may be found in situations in which no head noun precedes the relative clause, 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 context-free use, the relativizer is interpreted as indicated in (13), regardless of the context.

(13) the forms of the relativizer that may have a context-free use

Ø-an	class A	‘the person that’
k-an	class BK	‘the people that’
y-an	class E	‘the thing that
s-an	class S	‘the things that’
b-an	class B	‘the place where’
w-an	class U	‘the thing that’
m-an	class M	‘the manner how’
t-an	class T	‘the precise place where’
d-an	class D	‘the thing that’
d-ɐn	class D´	‘the place within which’
n-an	class N	‘the moment when’

Example (14) illustrates free relatives whose interpretation is entirely determined by the class value expressed by the relativizer.

(14a) **an ɪwɔnkʊm**
‘the person I called’

Ø-an	**ɪ-wɔnk-ʊ-m**
CLa-REL	sI:1SG-call-EP-ACT

(14b) **kan ʊsɔɔlaam b’eeŋɐruley**
‘the people we must bring

k-an	**ʊ-sɔɔlaˬa-m**	**bɛˬe-ŋɐr-ul-e-y,**
CLbk-REL	sI:1PL-must-INCL-ACT	DIR-INFe-take-CTRP-D-CLe

(14c) **yan ɔnñaa dɪ ɛrɛgɛy**
‘what you are saying’

y-an	**ɔn-ñaa**	**dɪ**	**ɛ-rɛg-ɛ-y**
CLe-REL	sI:2SG.be-ACT	PREP	INFe-say-D-CLe

(14d) **san kʊŋarʊlɔm dɪ lɛkɔɔlɛy**
‘the things they brought from school’

s-an	**kʊ-ŋar-ʊlɔ-m**	**dɪ**	**lɛkɔɔl-ɛ-y**
CLs-REL	sI:CLbk-take-CTRP-ACT	PREP	school-D-CLe

(14e) **ban ʊmaŋʊm b'ɛɛjaay**
'the place where we want to go'
b-an **ʊ-maŋ-ʊ-m** **bɛ↓ɛ-ja↓a-y,**
CLb-REL sI:1PL-want-EP-ACT DIR-INFe-go-D-CLe

(14f) **wan akaanʊm**
'what (s)he did'
w-an **a-kaan-ʊ-m**
CLu-REL sI:CLa-do-EP-ACT

(14g) **man ʊrɛgɔɔm**
'the way you talked to him/her'
m-an **ʊ-rɛg-ɔɔ-m**
CLm-REL sI:2SG-talk-I:CLa-ACT

(14h) **tan anɛnʊm kɔɔraay**
'the place where he left the herd'
t-an **a-nɛn-ʊ-m** **kɔɔra↓a-y.**
CLt-REL sI:CLa-put-EP-ACT (NPø)herd-D-CLe

(14i) **dɐn kʊnɔkɛnʊm**
'the place where they entered'
d-ɐn **kʊ-nɔkɛn-ʊ-m**
CLd´-REL sI:CLbk-enter-EP-ACT

(14j) **dan ɪwɔnɔɔrɛ**
'what I think'
d-an **ɪ-wɔnɔɔr-ɛ**
CLd-REL sI:1SG-think-ACT

(14k) **nan ajawʊm**
'when he left'
n-an **a-jaw-ʊ-m**
CLn-REL sI:CLa-aller-EP-ACT

The eleven values of the feature 'class' illustrated in (14) with the relativizer have similar context-free uses with a variety of adnominals and pronouns. A twelfth value of the feature 'class' (Ñ) lends itself to a context-free use in more restricted conditions. The context-free use of class Ñ is possible with quantitative modifiers. The rule is that, in the absence of a head noun, the class Ñ form of quantitative modifiers can be interpreted as referring to a number of repetitions, regardless of the context. This is illustrated in (15) with the class Ñ form of **-amɛɛŋɛ** 'numerous' (participle of the verb **mɛɛŋ** 'be numerous'), interpreted as 'several times', 'often'.

(15) **Kuniinɐɐk ñamɛɛŋɛ kulɐkeeriit dɪ kʊsɛɛkak kɔɔlul.**
'Often the men do not live with their wives.'
ku-niine↓ɐ-k **ñ-a-mɛɛŋ-ɛ** **ku-lɐko↓eriit**
NPk_1-man-D-CLbk CLñ-PTCP-be.numerous-ACT Is:CLbk-live-ICPL.NEG

dɪ	**kʊ-sɛɛk-a-k**	**k-ɔɔl-ʊl.**
PREP	NPk_1-wife-D-CLbk	CLbk-POSS-I:CLbk

To summarize, only three of the fifteen values of the feature ‘class’ (F, K and J) do not lend themselves to context-free uses. The question that arises is to what extent the context-free use of the inflectional feature ‘class’ can be analyzed as a particular type or agreement with an understood controller.

7.3. Context-free use of the inflectional feature ‘class’ and ellipsis

The context-free use of some values of the feature ‘class’ can be explained in terms of ellipsis of a controller, provided one accepts the idea that certain nouns have the property of being elidable without any contextual conditioning. However, out of the twelve classes that have context-free uses, only three lend themselves to this kind of explanation without any problem. For three other classes it is problematic, and for the other six it cannot be considered within the limits of synchronic description.

7.3.1. The values of the inflectional feature ‘class’ whose context-free use can be explained in terms of context-free ellipsis of certain nouns

7.3.1.1. Classes A and BK

Context-free ellipsis of a particular noun among the potential controllers of a given value of the feature ‘class’ accounts for the context-free use of classes A and BK with reference to ‘person’ or ‘people’, since gender A/BK includes the noun **Ø-an** ‘human being’ pl. **bʊk-an**, and consequently the context-free use of classes A and BK can be explained by positing that:

- from the point of view of the speaker, in contrast to the other nouns of gender A/BK, the ellipsis of **Ø-an / bʊk-an** is not bound to any contextual conditioning;
- from the point of view of the hearer, when a class A or BK form occurs in a context that does not provide or suggest a particular controller, **Ø-an / bʊk-an** is interpreted as controller by default.

7.3.1.2. Class U

This is also the case for class U forms referring to ‘thing’ in the absence of any controller suggested by the context, since **w-aaf** ‘thing’ belongs to agreement class U, which makes it possible to posit that:

- from the point of view of the speaker, in contrast to the other noun forms belonging to agreement class U, the ellipsis of **w-aaf** is not bound to any contextual conditioning;
- from the point of view of the hearer, when a class U form occurs in a context that does not provide or suggest a particular controller, **w-aaf** is interpreted as controller by default.

7.3.2. The values of the inflectional feature 'class' whose context-free use cannot be explained in terms of context-free ellipsis of certain nouns

An explanation in term of context-free ellipsis of certain nouns is ruled out (at least in a strictly synchronic perspective) for six of the other classes lending themselves to context-free uses.

7.3.2.1. Classes E and S

The context-free use of classes E and S with reference to 'thing(s)' cannot be explained in terms of context-free ellipsis, since gender E/S includes no noun whose general meaning could be glossed as 'thing'.

7.3.2.2. Class M

The context-free use of class M with reference to 'manner' cannot be explained in terms of context-free ellipsis either. Agreement class M includes several nouns with a meaning of manner, but none of them has a meaning general enough to be analyzed as the understood controller that could explain the context-free use of class M.

7.3.2.3. Class Ñ

As regards the context-free use of the class Ñ forms of quantitative modifiers with reference to 'time' in the sense of 'repetition', an explanation in terms of controller ellipsis is ruled out, since the only noun that expresses this notion is **bʊ-yaas** pl. **ʊ-yaas**, which belongs to gender B/U (with a gender K/U variant **ka-yaas** pl. **bʊ-yaas**), and is probably an adaptation of French **voyage** 'travel'. Moreover, in its context-free use, class Ñ implies plurality, whereas in its use in agreement contexts, it is a singular class.

7.3.2.4. Classes D and N

In the case of classes D and N, an analysis in terms of controller ellipsis is ruled out by the mere fact that there is no noun form triggering the choice of class D or N forms of its modifiers or of the pronouns that resume it.

7.3.3. The values of the inflectional feature 'class' for which an explanation of the context-free use in terms of context-free ellipsis of certain nouns is problematic

This concerns classes B, T, and D', which in their context-free use express the notion of 'place' (delimited in a relatively vague way in the case of class B, delimited in a relatively precise way in the case of class T, viewed as an interior in the case of class D´).

In addition to it context-free use, class B is used to express agreement with nouns belonging to various semantic types, since agreement class B is semantically heterogeneous, whereas classes T and D´ can only mark agreement with noun forms whose meaning is identical to that expressed by these two classes in their context-free use.

The problem is that the noun forms that could be analyzed as understood controllers in the context-free use of these classes (**b-ɪn** or **b-an** for class B, **t-ɪn** or **t-an** for class T, and **d-in** or d-**ɐn** for class D´) are extremely rare in discourse, and it seems that not all speakers use them. There is another noun with the lexical meaning 'place': **dula** (gender E/S), borrowed from Mandinka, but it is extremely rare too. In fact, it is obvious that the use of a noun form to

encode the notion of ‘place’ is something quite exceptional in Jóola Fóoñi, which makes very unsatisfactory the analysis according to which the ellipsis of a controller noun would be responsible for the context-free use of classes B, T and D´.

Since several other classes must be analyzed as having an inherent meaning that cannot be explained in terms of a privileged relationship with one of their potential controllers, one may consider that this is also the case for classes B, T and D´.

7.3.4. A plausible historical scenario

A plausible explanation is that, originally, the context-free use of classes referred in all cases to an understood controller. Later, the noun in question disappeared for some classes, but the possibility of a context-free use of the class with reference to the notion it expressed was maintained. In other words, the renewal of the lexicon is a plausible cause of the emergence of situations such as those described in section 7.3.2

The case of the context-free use of class Ñ is particularly interesting, because of the contradiction between the plural value it implies in its context-free use and its singular value when it expresses agreement with nouns of gender Ñ/U. Most probably, at the time when the context-free use of class Ñ grammaticalized, this class was a plural class. Later the plural noun form that was initially responsible for this use of class Ñ disappeared, and class Ñ was subsequently reanalyzed as a singular class.

However, further investigation would be necessary in order to determine to what extent cognates of the ‘ghost controllers’ involved in the situations described in section 7.3.2 could be identifiable in the other Atlantic languages, otherwise the hypothesis just proposed will remain purely speculative.

In the case of the ‘locative’ classes (B, T and D´), but also of gender A/BK, the question is further complicated by the fact that the stem of the noun forms that express the same meaning as the classes in question in their context-free use is a kind of ‘chameleon stem’ (**-an** or **-ɯn**) acting as a mere support for a prefix which entirely determines the meaning of the noun form. This suggests that, historically, the forms in question were originally adnominal or pronominal forms inflected for class, and were later reanalyzed as nouns. The coincidence between the ‘chameleon noun stem’ **-an** and the relativizer **-an** is probably not accidental. However, historically, this pushes even further the search for nominal lexemes whose ellipsis may have resulted in the context-free use of classes. A systematic compilation of comparative data would be necessary to advance towards solving this problem.

8. Conclusion

In this paper, Jóola Fóoñi has first served to illustrate the necessity of a revision of the conceptual framework and terminology traditionally used in the description of the systems of noun inflection and noun-controlled agreement typically found in Niger-Congo languages, if one is concerned to avoid false problems, logical inconsistencies and/or misunderstandings in the description of such systems.

In order to clarify the situation, I have proposed that the term ‘class’ without further specification should be reserved for the inflectional category of adnominals and pronouns involved in the agreement mechanisms controlled by nouns, and that nouns should not be viewed as inflected for class, but for number. I have also insisted on the necessity of giving a definition of ‘class’ that leaves open the possibility that this inflectional category of adnominals and pronouns may also have uses that cannot be described in terms of agreement with a controller noun (either explicit or understood).

In the last part of this paper, I have analyzed the context-free use of forms inflected for class in Jóola Fóoñi, showing that, synchronically, the hypothesis that certain nouns lend themselves to context-free ellipsis provides only a partial explanation, since out the 12 values of the feature 'class' that lend themselves to a context-free use, only 3 can be accounted for in this way without any problem in the present state of the language.

Abbreviations

ACT = actualizer, CL = class, CTRP = centripetal, D = definite, DIR = directive, DISTR = distributive, EP = epenthetic vowel, GEN = genitive, I = index (other than subject index), ICPL = incompletive, INCL = inclusive, INF = infinitive, NEG = negation, NP = nominal prefix, OST = ostensive, PL = plural, PREP = preposition, PRO = pronoun, REL = relativizer, SEQ = sequential, SG = singular, sI = subject index.

References

Cobbinah, Alexander & Friederike Lüpke. 2014. When number meets classification, the linguistic expression of number in Baïnounk languages. In Storch, Anne and Gerrit J. Dimmendaal (eds.), *Number – Constructions and Semantics: Case studies from Africa, Amazonia, India and Ocenia*. 199-220.

Güldemann, Tom & Ines Fiedler. 2017. Niger-Congo "noun classes" conflate gender with declension. In Francesca Di Garbo & Bernhard Wälchli (eds.), *Grammatical gender and linguistic complexity*. Berlin: Language Science Press. 85-135.

Hopkins, B. L. 1995. *Contribution à une étude de la syntaxe diola-fogny*. Doctoral dissertation. Dakar: Cheikh Anta Diop University.

Sapir, David J. 1965. *A Grammar of Diola-Fogny*. Cambridge University Press.