

Morphology-syntax mismatches in agreement systems:

the case of Jóola Fóoñi

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In this study we examine the agreement system of Jóola Fóoñi, an Atlantic language of Senegal with a noun class system of the Niger-Congo type. We show that synchronically the inflectional paradigm characterising the adnominals and pronouns that can be the target of gender-number agreement controlled by nouns is syntactically heterogeneous in several respects. Firstly, out of the 15 ‘classes’ that structure the inflectional paradigm of adnominals and pronouns involved in the expression of agreement with heads or antecedents, two do not have any potential nominal controllers. These two classes only appear in non-contextual uses in which they independently contribute to the interpretation of the sentence. Secondly, among the 12 classes that have non-contextual uses, the classes expressing place, time and manner display a special syntactic behaviour whose most obvious manifestation is that, in their non-contextual use, the forms belonging to the classes in question cannot control verb agreement. And finally, the three classes that refer to different conceptualisations of place show a special behaviour in relativisation. We propose to analyse these differences as the reflex of a reorganisation of the inflectional class system: the forms inflected for class that express place, time or manner in their non-contextual use have become adverbs, and the locative relativisers have been reanalysed as locative pronouns.

1 Outline

The present study examines the syntactic behaviour of the cells that constitute the inflectional paradigm of predicates, adnominals and pronouns in Jóola Fóoñi.¹

(1) insert here

If we present the inflectional paradigm of xx as in () we get something that looks familiar of inflection of an agreeing predicate in other languages. One well-known difference with more familiar Indo-European paradigms of modifiers is that the values of inflection are not as clearly associated with singular and plural number.

In what follows, we will show that the inflectional paradigm of JF differs from more familiar paradigms in other aspects. First, the JF paradigm looks like inflectional paradigms of target genders in IE – however, JF contains a cell that is morphologically parallel to the other classes but syntactically different in that it is never involved in syntactic agreement (so never functions as a target gender). Second, two of the cells of JF paradigm do not have any corresponding nouns. Thirdly, the default agreement class cID is found on a full range of agreeing hosts, unlike default agreement forms that are often limited to certain forms. Thirdly, when used without a noun and without an implied antecedent (what we call non-contextual uses) 11 of the 15 cells are associated with specific semantic meanings, of which only 6 are pronominal – 5 of the 11 meanings have adverbial meaning (place, manner, place) and the syntax of adverbs.

In traditional descriptions of the Niger-Congo languages that have a gender system of the same kind as JF, the term “NOUN CLASS” is used to cover three domains: (i) singular and plural marking morphology on nouns, (ii) the division of noun forms depending on their agreement pattern and (iii) the inflectional affixes of adnominals and pronouns. Diachronically, these systems plausibly have a common origin, and synchronically, they are still closely intertwined. However, as this study shows in detail, given the synchronic grammar of **Jóola Fóoñi**, a uniform terminology for these three aspects of the grammar is highly misleading. In what follows, we therefore clearly distinguish the morphology marking singular/plural on nouns (the inflectional type of nouns), noun forms that share the same agreement patterns, and the cells in the inflectional paradigm of modifiers and pronouns (that we will refer to as CLASSES).

We first present the inflection types found with JF nouns (section 2.1), the equivalence classes of noun forms defined by their agreement behaviour and the genders in Jóola Fóoñi (section 2.2). We then briefly summarise the relationship between genders and the inflectional paradigm of adnominals and pronouns involved in gender-number agreement (section 3). We

¹ The main references on Jóola Fóoñi are Weiss 1938, Sapir 1965, and Hopkins 1995.

show that the inflectional paradigm of modifiers, predicates and pronouns cannot be understood straightforwardly as marking agreement with nominal controllers. One of the two classes - class D - marks agreement but does not have any corresponding noun: it is a NON-LEXICAL CLASS (in analogy with Corbett’s NON-LEXICAL GENDER, Corbett 1991:159). The second class – class N – is part of the morphological paradigm of a subset of agreement-targets but there are no corresponding nouns and more surprisingly, class N is never used as agreement. We proceed to examine the inflectional paradigms for verbs and pronouns. We show that in their non-contextual use, the classes fall into three groups: Group 1 does not allow non-contextual uses, for Group 2 non-contextual uses yields **pronominal** expressions while for the classes in Group 3 yield **adverbial** expressions (section 4). Section 5 deals with the particular behaviour of inflected relative linker. Section 6 summarises the analysis.

2 Nouns in Jóla Fóoñi: inflectional types, agreement and gender

The present paper follows the analysis of Niger-Congo noun-class systems in Creissels (2018) and Güldemann & Fiedler (2017). These authors show that the prefixal marking of number on noun lexemes and the agreement triggered by noun forms are interrelated but distinct aspects of the grammatical system (see Corbett’s 1991 analysis of Bantu noun-class systems, Corbett 1991:44). The following sections briefly summarise the facts regarding number marking and agreement behaviour of nouns in Jóla Fóoñi.

2.1 Inflectional types of nouns

In JF the paradigm of nouns has 2 cells: the singular noun form and the plural noun form. The prefixes of the singular and plural noun forms are not predictable and have to be specified for the lexeme. Nouns divide into inflectional types according to the way they express the singular vs. plural distinction (for a full list see Creissels 2018b). The inflectional type will be referred to by the pair of prefixes that are the morphological exponents of the singular and plural form of the noun as exemplified in (1).

(1) Examples of inflectional types of nouns

a. Inflectional type \emptyset -/ *bok*-

SINGULAR NOUN FORM	PLURAL NOUN FORM
\emptyset -an ‘person’	<i>bok</i> -an ‘persons’

Lexeme PERSON

b. Inflectional type *a*-/ *k(v)*-

SINGULAR NOUN FORM	PLURAL NOUN FORM
a-sɛɛk ‘woman’	ku-sɛɛk ‘women’

Lexeme WOMAN

c. Inflectional type ϵ -/ $s(t)$ -²

SINGULAR NOUN FORM	PLURAL NOUN FORM
e-suk ‘village’	si-suk ‘villages’

Lexeme: VILLAGE

d. Inflectional type \emptyset -/ $s(t)$ -

SINGULAR NOUN FORM	PLURAL NOUN FORM
\emptyset -sindo ‘home’	si-sindo ‘homes’

Lexeme: HOME

Jóola Fóoñi also has a sizeable minority of nouns that do not have contrasting singular and plural forms. For example, *s-ambon* ‘fire’ and *s-ɛuut* ‘dream’ are pluralia tantum, in the sense that they behave in all respects like the plural of nouns belonging to the inflectional types ϵ --/ st -- or \emptyset - / $-st$ -, except for the fact that there is no corresponding singular form.³

2.2 Agreement patterns in Jóola Fóoñi

As shown in 2.1, noun lexemes in Jóola Fóoñi differ with respect to the exponents marking their singular and plural forms. In addition to this, the singular and plural noun-forms differ with respect to the agreement they trigger on predicates, modifiers, pronouns and pronominal indices. Based on the agreement they trigger on a range of targets, noun-forms fall into 13

² Note that Jóola Fóoñi has ATR vowel harmony. The underlying form of the inflectional prefixes is the [--ATR] pair (ϵ -/ st in this example), the realisation as [+ATR] (e -/ si - in this example) is phonologically predictable (Hopkins 1995: 18-20).

³ Note that the nouns without a dedicated singular form do not form a homogeneous class. While *s-ɛuut* ‘dream’ combines with numerals, including the numeral one (i), *s-ambon* ‘fire’ is incompatible with numerals and behaves as a mass noun; for example, ‘He lit two fires’ can only be rendered as ‘He lit fire in two places’ (ii).

(i) $\text{s}\epsilon\text{uut}$ s - $\text{ɛk}\text{on}$ $\text{s}\epsilon\text{uut}$ st - $g\text{aba}$
dream CLS-one dream CLS-two
‘one dream’ ‘two dreams’

(ii) na - $y\text{ab}\epsilon\text{ne}$ $s\text{amb}\text{on}$ - as $t\text{in}$ $t\text{ɪ}$ - $g\text{aba}$.
SI:CLA-lit fire-DET.CLS place CLT-two
lit. ‘He lit fire in two places.’ > ‘He lit two fires.’

subsets. The labels of the agreement patterns (A, BK, E, S, B, U, F, K, J, M, Ñ, T, D') evoke the phonological form of (a subset of) the corresponding agreement markers.⁴

(1) Example of agreement forms with agreement pattern E

Definite determiner	Wh-determiner	Indefinite
e-suk-ey	e-suk y-ey?	e-suk ε-cεεn
SG-village(E)-DET.CLE	SG-village(E) CLE-WH	SG-village(E) CLE-INDEF
'the village'	'which village'	'some village'

The inherent agreement pattern associated with each noun form is included in parentheses as part of the gloss: e.g. the noun form of class E meaning *village (sg)* will be glossed as *e-suk* 'SG-village(E)'. The examples in (2) illustrate agreement as displayed on the vowel-initial adjectival stem *-ajakε* 'good' (for more detailed examples of agreeing modifiers and pronouns see section 3 below.)

(2) Agreement of noun forms⁵

AGREEMENT PATTERN		NOUN FORM	MODIFIER	
A	a.	Ø-an SG-person(A)	Ø-ajakε CLA-good	'a good.CLA person(A)'
	b.	a-sεεk SG-woman(A)	Ø-ajakε CLA-good	'a good.CLA woman(A)'
E	c.	e-suk SG-village(E)	y-ajakε CLE-good	'a good.CLE village(E)'
	d.	Ø-sindo SG-home(E)	y-ajakε CLE-good	'a good.CLE home(E)'
BK	e.	buk-an PL-person(A)	k-ajakε CLBK-good	'good.CLBK persons(BK)'
	f.	kU-sεεk	k-ajakε	'good.CLBK women (BK)'

⁴ The label D' for one of the agreement patterns is in keeping with the current orthography of JF that marks the [+ATR] feature by means of the acute accent: the agreement marks characteristic of the D' pattern are underlyingly [+ATR], and impose the [+ATR] feature to the stems to which they attach.

⁵ Throughout this article, we use a simplified system of segmentation and glossing in which formatives that play no direct role in the aspects of JF grammar we analyse are neither segmented nor glossed separately. For example, the stem *-ajake* 'good' is in fact *-a-jak-ε*, where *-jak* is the verb root 'be good', *-a-* is a participial prefix, and *-ε* is an 'actualizer', i.e. one of three suffixes that, in JF, constitute the characteristic inflection of relative verb forms and participles (Creissels 2018a).

		PL-woman(A)	CLBK-good	
S	g.	si-suk PL-village(S)	s-ajake CLS-good	‘good.CLS villages(S)’
	h.	si-sindo PL-home(S)	s-ajake CLS-good	‘good.CLS good homes(S)’

In JF, the exponents of plural agreement cannot be decomposed into exponents for gender and number as e.g. in Spanish (3).⁶ The plural forms of *ka-sɔnd* / *ɔ-sɔnd* ‘roof sg/pl’ and *bɔ-rɔŋ* / *ɔ-rɔŋ* ‘road sg/pl’ trigger identical U agreement (4a/a’) even though the corresponding singular forms are associated to different agreement patterns K and B (4b/b’)

(3) (Spanish)

- a. el cerro alt-o b. lo-s cerro-s alt-o-s
 DET.MS mount(M) high-M DET.MPL mount(M)-PL high-M-PL
- b. la casa alt-a b. la-s casa-s alt-a-s
 DET.FS house(F) high-F DET.FPL house(F)-PL high-F-PL

(4)

a.	<i>ɔ-sɔnd</i>	<i>w-ajake</i>	a.’	<i>ɔ-rɔŋ</i>	<i>w-ajake</i>
	PL-roof(U)	CLU-good		PL-road(U)	CLU-good
	‘good roofs(U)’			‘good roads(U)’	
b.	<i>ka-sɔnd</i>	<i>k-ajake</i>	b.’	<i>bɔ-rɔŋ</i>	<i>b-ajake</i>
	SG-roof(K)	CLK-good		SG-road(B)	CLB-good
	‘a good roof(K)’			‘a good road(B)’	

The division of noun forms into subsets according to their agreement patterns must not be confused with gender, although it constitutes the basis on which genders can be established. Gender classifies *noun-lexemes* according to their agreement pattern (Corbett 2006:126) and a noun has the same gender irrespective of the number specification it appears with (Corbett 1991:154). In the examples in (4) the same gender morphology appears in the singular and in the plural forms, with plural marked by an independent plural morpheme *-s*. In contrast, the observable agreement patterns in JF as illustrated in (2) above classify *noun-forms* (singular or plural forms of a noun) not noun-lexemes. In JF, the noun lexemes for ‘roof’ and ‘day’

⁶ In this respect, the gender-number agreement systems found across the Niger-Congo family are essentially similar to the Italian system, as illustrated by the impossibility of dissociating gender agreement from number agreement in the inflection of an Italian adjective such as ‘tall’: *alt-o* (MSG) / *alt-a* (FSG) / *alt-i* (MPL) / *alt-e* (FPL).

The inflectional type of nouns – i.e. the prefixal marking of singular and plural noun-forms – is not part of the agreement pattern but a separate (although closely related) system. Inflectional type is correlated with gender but not coextensive with it as shown by the genders A/BK, E/S, B/U and A/S in (6a/b/c/g).⁹ Inflectional type and gender are lexical properties of each noun lexeme, as shown in (7) for the lexemes in example (1).

(7)

	LEXEME	GENDER	INFL. TYPE	NOUN FORMS	
a.	PERSON	A/BK	∅- / bøk-	∅-an / bøk-an	‘person / persons’
b.	WOMAN	A/BK	a- / k-	a-sæek / kʊ-sæek	‘woman / women’
c.	VILLAGE	E/S	ε- / s-	e-suk / si-suk	‘village / villages’
d.	HOME	E/S	∅- / s-	∅-sindo / si-sindo	‘home/homes’

In sum, noun-lexemes are associated with two types of information: Gender (a pair of agreement patterns) and inflectional type (the pair of prefixes marking singular and plural for the noun). To differentiate inflection types and gender typographically, inflection types are notated as pairs of prefixes marked in lower case while gender is a pair of agreement patterns marked in upper case.

3 Class-morphology and agreement in JF

In the previous section we have seen that in Jóla Fóõñi the inflectional paradigm of nouns specifies the singular and the plural noun-forms.

In this section we examine the inflectional paradigm of adnominal modifiers, subject and non-subject indices and pronouns in JF.

3.1 The inflectional paradigm of modifiers and pronouns

The inflectional paradigm of modifiers and pronouns in Jóla Fóõñi has 15 cells, exemplified in (8) by the inflectional paradigm of the modifier *-cɛɛn*¹⁰ ‘some’.

(8)

⁹ As in other languages such as Ancient Greek and Latin, inflectional classes are good predictors of gender but gender does not predict inflectional class.

¹⁰ In Jóla Fóõñi final consonants are unstable. In particular, the stem *-cɛɛn* alternates with *-cɛɛ* without any discernible syntactic or semantic differences. It is not possible to formulate strict rules predicting the deletion of final consonants, but an important factor in the weakening of final consonants seems to be the speed of speech.

CLASS	-cɛɛn ‘some’		CLASS			CLASS	
A	a-cɛɛn		U	ʊ-cɛɛn		Ñ	ñt-cɛɛn
BK	kʊ-cɛɛn		F	fʊ-cɛɛn		T	tt-cɛɛn
E	ɛ-cɛɛn		K	kʊ-cɛɛn		D´	di-ceen
S	sɪ-cɛɛn		J	jt-cɛɛn		D	di-cɛɛn
B	bʊ-cɛɛn		M	mʊ-cɛɛn		N	ni-cɛɛn

We will refer to the cells of the inflectional paradigm of modifiers as CLASSES (class morphology is glossed CLX in what follows.)

In traditional descriptions of the Niger-Congo languages that have a gender system of the same kind as JF, the cells of the inflectional paradigm of modifiers are referred to under the cover term “NOUN CLASS” that also subsumes the patterns of inflectional number-marking on nouns (see INFLECTIONAL TYPES of nouns section 2.1) and the division of noun forms into subsets according to their AGREEMENT PATTERN (section 2.2.). However, given the synchronic grammar of JF, the term “noun class” is particularly misleading for the values of the inflectional paradigm of modifiers as in (8). In fact, in JF the cells of the paradigm do not uniformly reflect a categorization of nouns: there are no noun forms that control agreement of the classes D and N. In analogy with non-lexical genders (Corbett 1991) clD and clN can be termed NON-LEXICAL CLASSES. Out of the 15 classes marked on modifiers, only 13 classes can be used adnominally. Furthermore, as discussed above, the agreement patterns associated with nouns do not categorise noun lexemes but singular or plural *noun forms*.

For these reasons, as already discussed above, we avoid the cover term “NOUN CLASS” in the present discussion, distinguishing INFLECTIONAL TYPES of number marking on nouns and AGREEMENT PATTERNS associated with noun-forms. We reserve the term CLASS (glossed CLX) for the cells in the inflectional paradigm of adnominals and pronouns that show a set of inflected forms as in (8) above.

It has to be stressed that the relationship between the cells of the inflectional paradigm and syntactic agreement is complex as observed by Creissels (2018).

Firstly, while inflection for class marks agreement of adnominals and pronouns with their controller in some uses, 12 of the 15 classes also have NON-CONTEXTUAL USES that cannot be analysed as agreement. In non-contextual uses no controller (whether expressed or

understood) is involved, and the context plays no role in the construction of an interpretation (Creissels 2018b:XX, see section 4 for details).

Secondly, as already mentioned, in addition to 13 class values that have corresponding noun forms, the paradigm includes two non-lexical classes (D and N) that have no corresponding noun forms. The forms inflected for CLD and CLN are therefore never used to express agreement with a noun (Creissels 2018b). Moreover, as discussed below, the forms of CLD and CLN, although entirely parallel morphologically, do not have the same syntactic behaviour, since CLD forms such as *ri-cεen* ‘something, lit. CLD-some’ or *r-ajake* ‘something good, lit. CLD-good’ can be used as subjects or objects, whereas the corresponding CLN forms (for example *ni-cεen* ‘sometimes, lit. CLN-some’) function exclusively as adverbs. A particularly clear manifestation of this contrast is found in the paradigm of subject indexes: CLD has a phonologically empty subject index expressing agreement with CLD forms in subject function, but CLN has no corresponding subject index, as adverbial forms cannot be subjects in JF.

Class morphology appears on most adnominal modifiers, e.g. the enclitic definite article (9), determiners (10), the genitive linker (11), adjectives (12), relativisers (13), and numerals (14) as well as on subject predicate agreement (15) and indexes (bound pronouns) (16) and pronouns (17). The examples illustrate the agreement forms of *e-suk* ‘SG-village(E)’ (agreement in class E) and *bυ-ruη* ‘SG-road(B)’ (agreement in class B)

(9)	a.	e-suk-ey		bυ-ruη-ab	
		SG-village(E)-DET.CLE		SG-road(B)-DET.CLB	
		‘the village’		‘the road’	(definite det)
(10)	a.	e-suk-ey	υ-yυ	bυ-ruη-ab	υ-bυ
		SG-village(E)-DET.CLE	DEM-CLE	SG-road(B)-DET.CLB	DEM-CLB
		‘this village’		‘this road’	(demonstrative det)
	b.	e-suk	y-ey?	bυ-ruη	b-ey?
		SG-village(E)	CLE-WH	SG-road(B)	CLB-WH
		‘which village’		‘which road?’	(wh-determiner)
	c.	e-suk	ε-cεen	bυ-ruη	bυ-cεen
		SG-village(E)	CLE-INDEF	SG-road(B)	CLB-INDEF
		‘some village’		‘some road’	(indefinite determine)
	d.	e-suk	y-anoosan	bυ-ruη	b-anoosan

(16) a. pan iyiseni-**yɔ**
 FUT I.show.you-I:CLE
 ‘I’ll show it to you (the village)’

b. pan iyiseni-**bɔ**
 FUT I.show.you-I:CLB
 ‘I’ll show it to you (the road)’

(17) a. e-suk ε-cla, **y-ɔɔ** ε-kañom
 SG-village(E) CLE-aforementioned CLE-PRON CLE-was.destroyed.FOC
 ‘The village in question, it’s it that was destroyed.’

b. bu-roŋ bu-cla, **b-ɔɔ** bu-kañom
 SG-road(B) CLB-aforementioned CLB-PRON CLB-was.destroyed.FOC
 ‘The road in question, it’s it that was destroyed.’ (strong 3rd person pronoun -ɔɔ)¹¹

The words that are inflected for class maximally have a paradigm of 15 cells as in (8). The lack of a CLN form in some paradigms can be given an explanation in certain cases (for example, the fact that the paradigm of subject indexes does not include a cLN index can be viewed as a consequence of the fact that CLN forms cannot fulfill argumental functions), but this is not always the case (for example, the lack of a CLN form for demonstratives, as opposed to the existence of a CLN form for the 3rd person pronouns is probably accidental, since a CLN form of demonstratives expressing ‘at this/that time’ would be perfectly conceivable).

In the next section we examine the noun-less uses of class-inflection on adnominal modifiers.

4. Noun-less class-marking

Jóola Fóoñi allows class-inflection in the absence of a lexical noun in two syntactically distinct configurations. In the first configuration, class-inflection without a noun is used pronominally to refer anaphorically or deictically to a nominal of the respective class. We refer to such a use of forms inflected for class as their CONTEXTUAL use, as the content of the

¹¹ Jóola Fóoñi is a pro-drop language. The independent lexical pronouns are only used in contrastive contexts (topicalisation or focalisation). For simple anaphoric uses, the subject and non-subject indices are used. Focalisation requires a specific form of the verb also used in wh-questions and relativisation.

missing noun can be contextually recovered. In the second configuration, class marking without a noun is used in the absence of any explicit or implicit nominal controller. In the absence of a controller, class-marking is associated with a meaning that constitutes an inherent property of each of the classes that lend themselves to such a use. We refer to these uses of class-inflected forms as NON-CONTEXTUAL USES. In what follows we discuss each case in turn.

4.1. Class-inflection without nouns: anaphoric and deictic uses

In contextual uses of class-agreement, noun-less agreement is used pronominally: either anaphorically referring back to a nominal of the respective class or deictically referring to a referent designated by a nominal of the relevant class. This use is available for the 13 classes that have associated noun-forms. Class inflection can be used anaphorically and deictically with all adnominal agreeing modifiers.

(18) Examples

a. Adjective

umaŋot e-rəp-ey y-ukon-ey, **y-ɛɛmɛk-ey** nɪmaŋɛ.
 I.don't.want SG-cutlass(E)-DET.CLE CLE-small-DET.CLE **CLE-big-DET.CLE** I.want
 'I don't want the small cutlass(E), it's the big one that I want.'

b. Numeral

Nɪsɔfɛnsɔf matt a-nɪul ɐ-kon nabajɛ, bare kama **ku-feeji** nabajɛ.
 I.thought that SG-child(A)CLA-oneshe.had but in.fact **clBK-three** she.has
 'I thought that she has one child(A) but in fact she has three (children(BK)).'

c. Genitive linker

ɛ-luup-ey y-att ampaɔm dt **y-att apaalɔl** waatt yɛkon
 SG-house(E)-DET.CLE CLE-of my.father and **CLE-OF his.friend** time one
 st-tɛɛpt
 SI:CLS.were.built
 'My father's house and his friend's were built at the same time.'

d. Relative linker

ɛ-bɛkaan y-uya dt **y-an t-nɔɔmɔm** st-naamɔt.
 SG-bicycle(E) CLE-your and **CLE-REL SI:1SG-bought** SI:CLS-are.different
 'Your bicycle and the one I bought are different.'

e. Determiner

si-bɛ-ɛs s-an i-yisenim, s-ey si-suumisuum?

PL-cows(S)-DET.CLS CLS-REL SI:1SG-showed.you CLS-which CLS-please.you

‘The cows that I showed you, which ones do you like?’

Noun-less anaphoric and deictic uses display the same distribution and agreement behavior as noun-phrases with a lexical noun of the same class, exemplified in (19) with subject

agreement indices that mark subject agreement

- (19) a. e-rɛp-ey ɛ-jajak
 SG-cutlass(E)-DET.CLE **SI:CLE**-is.good
 ‘The cutlass is good.’
- b. y-umbəəm ɛ-jajak.
 CLE-POSS.1SG **SI:CLE**-is.good ‘Mine (= my cutlass) is good.’
- c. y-rəmək-ey ɛ-jajak. ‘The big one (= the big cutlass) is good.’
 CLE-big-DET.CLE **SI:CLE**-is.good
- d. y-an ɪnɔmɔm ɛ-jajak. ‘The one I bought (cutlass) is good.’
 CLE-RELI.bought **SI:CLE**-is.good

4.2 Class-inflection without nouns: non-contextual uses

In addition to the anaphoric and deictic uses of inflected modifiers discussed in the previous section, in which the class-inflection marks agreement with a nominal controller, there are N-less uses of class-inflected elements without a nominal controller, that we call *non-contextual class inflection*.

In what follows we show that the class value and the type of host impose restrictions on non-contextual uses. Firstly, the semantic and syntactic properties of the non-contextual uses depend on the class-value (section 4.2.1). And secondly, agreeing hosts vary with respect to the range of class-values that allow non-contextual uses (section 4.2.2).

4.2.1 Class-values and the syntax and semantics of non-contextual class inflection

Of the 15 class-values marked in the inflectional paradigm of adnominals and pronouns, only 12 classes have non-contextual uses, including the orphan classes D and N, that only have this use. The noun-less uses of classes F, K and J do not allow a non-contextual interpretation and are only felicitous in contexts with an explicit or implicit controller.

CLASSES	LEXICAL CONTROLLER	NON-LEXICAL USE
cID, cIN	no	yes

add cl.	yes	yes
clF, clK, clJ	yes	no

Each of the 12 classes that allow non-contextual uses is associated with an inherent semantic value. In non-contextual uses the values marked by class-inflection are associated with notions such as ‘person’, ‘thing’, ‘place’, ‘time’ or ‘manner’ independently of any contextual conditioning, as illustrated in (20). As apparent in (20), class-values that allow non-contextual uses do not necessarily appear with all inflecting modifiers: the relative linker *clX-an* does not permit a non-contextual use for the CLÑ form *ñ-an* (that appears in contextual uses with nouns of CLÑ).

(20) The meanings expressed by the relative linker *clX-an* in its non-contextual uses

	CLASS	clX-an ‘relative linker’	NON-CONTEXTUAL USE TRANSLATION
	class A	∅-an	‘the person that ...’
	class BK	k-an	‘the persons that ...’
	class E	y-an	‘the thing that ...’ ¹²
	class S	s-an	‘the things that ...’
	class B	b-an	‘at the place that ...’ ¹³
	class U	w-an	‘the thing that ...’
	class F	f-an	— no non-contextual uses
	class K	k-an	— no non-contextual uses
	class J	j-an	— no non-contextual uses
	class M	m-an	‘in the manner how ...’
	class Ñ	ñ-an	— no non-contextual use with target <i>clX-an</i>
	class T	t-an	‘at the place where ...’ ¹⁴
	class D’	d-ɐn	‘at the place where ...’
	class D	d-an	‘the thing that ...’

¹² Non-contextual uses of class D imply vague reference to things, situations, or events, comparable to French *ça*.

¹³ Class T implies a more precise delimitation of space than class B; class D’ implies reference to the interior of a space.

¹⁴ The only possible controllers of T and D’ agreement are *t-in ~ t-an* “place (delimited with precision)”, and *d-in ~ d-ɐn* “interior of a place”.

	class N	n-an	‘at the time when ...’
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As many noun-less inflected adnominals allow contextual and non-contextual uses, noun-less constructions may be ambiguous. For example, as a headed relative clause, *w-an inɔmɔm* ‘CLU-REL I bought’ can combine with any head noun associated to agreement pattern U, as in (21a). As a free relative, if a noun belonging to gender B/U or K/U is present in the context or simply suggested by the context, it can be interpreted as ‘the ones I bought’ (‘one’ referring to the noun in question 21-b-i). However, it is always possible to interpret *w-an inɔmɔm* simply as ‘what I bought’ (21b-ii), and this is the only possibility in contexts that do not suggest a particular noun form associated to agreement pattern U as an understood controller.

- (21) a. *ɔ-samata-w w-an inɔmɔm*
 PL-shoe-DET.CLU CLU-REL I bought
 ‘the shoes that I bought’
- b. *w-an inɔmɔm*
 CLU-REL I bought
- i. ‘the ones (CLU) that I bought’ (e.g. *ɔ-samata* ‘pl-shoe(U)’) (contextual use)
- ii. ‘what I bought’ (non-contextual use)

In the particular case of class U, the non-contextual use of class U forms can be explained by positing that one of the noun forms that trigger agreement pattern U has a special status. The point is that *w-aaf* ‘thing’ is associated to agreement pattern U, and consequently the use of class U forms illustrated in (21b-ii) can be explained by positing that this noun is not subject to the retrievability conditions that normally regulate the possibility of eliding nouns, and consequently acts as a default controller of class U forms in contexts that do not suggest any other controller. However, this kind of explanation cannot be extended to all the classes that have non-contextual uses (see Creissels 2018b for a detailed discussion).

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 consequently be deemed pronominal:

- (22) a. forms of class A or BK used as non-anaphoric pronouns referring to human beings, such as *a-cila* ‘the aforementioned person’, or *kɔ-cɛɛn* ‘some persons’;

- b. forms of class E or S used as non-anaphoric pronouns referring to things, such as *y-anɔɔsan* ‘everything’, or *s-an kɔŋarɔlɔm di lɛkɔlɛy* ‘what they brought from school’;
- c. forms of class U used as non-anaphoric pronouns referring to things, such as *w-anɔɔsan* ‘everything’, or *w-an akaanɔm* ‘what (s)he did’;
- d. forms of class D used as non-anaphoric pronouns referring to things, such as *di-cɛɛn* ‘something’, or *d-an iwɔnɔɔrɛ* ‘what I think’.

Notice that class D forms have no other possible use, since class D is an orphan class, and class D forms are not used adverbially either.

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

- (23) a. forms of class B used as spatial adverbs referring to vaguely delimited places, such as *bɔ-cɛɛn* ‘somewhere’, or *b-anɔɔsan* ‘everywhere’;
- b. forms of class T used as spatial adverbs referring to places delimited with precision, such as *t-aa-t-ɛ* ‘here’, or *t-an anɛnɔm kɔɔraay* ‘where he left the herd’;
 - c. forms of class D’ used as spatial adverbs referring to the interior of something, such as *d-ɔɔ-r-e* ‘herein’, or *d-ɛn kɔnɔkenɔm* ‘where they entered’;
 - d. forms of class Ñ used as iterative adverbs, such as *ñi-gaba* ‘twice’;
 - e. forms of class N used as temporal adverbs, such as *ni-cɛɛ* ‘sometimes’, or *n-anɔɔsan* ‘always’;

Notice that all uses of class N forms are non-contextual adverbial uses: since class N is an orphan class there are no corresponding nouns of clN, and class N forms are never used pronominally.

Class M has the particularity of having non-contextual uses of both pronominal and adverbial type, but with different meanings. Class M forms are particularly frequent in a non-contextual use of adverbial type in which they act as manner adverbs as in (24), whereas class M forms of possessives and of the genitival linker have a non-contextual use of pronominal type in which they can be glossed ‘what concerns X’ exemplified in (25).

(24) Adverbial uses of clM

- a. *m-ɔɔ-mɔ*
 CLM- ɔɔ-CLM ‘thus, in this way’
- b. *m-anɔɔsan*
 cLM-ANY ‘in any way’
- c. *m-an iregim*
 CLM-REL I-told-you ‘as I told you’

(25) Pronominal uses of cLM

- a. possessive

M-ɔɔl-ul mu-suumənsuum.
 CLM-POSS-I:CLBK SI:CLM-pleases.me.
 ‘[What concerns them](CLM) pleases me.’
 lit. ‘Theirs (CLM) pleases me’ > ‘I like them.’

- b. genitival linker

M-atl apaalt mu-suumənsuum.
 CLM-GEN your.friend SI:CLM-pleases.me.
 ‘[What concerns your friend](CLM) pleases me.’
 lit. ‘That of (CLM) your friend pleases me’ > ‘I like your friend.’

It is striking that the non-contextual uses of the orphan classes CLD (22d) and CLN (23e) do not pattern together with respect to their syntactic status: non-contextual uses of CLD are pronominal while non-contextual uses of CLN are adverbial.

Interestingly, this syntactic distinction has some morphological correlates. The classes lending themselves to adverbial non-contextual uses are for example the only ones in which the class prefix of some adnominals or pronouns may show a reduplicated form CɔC- in free variation with the regular C- form (as e.g. *n-ey* ~ *nɔn-ey* ‘when?’, class N form of the interrogative *-ey* ‘which’).

The distinction between nominal and adverbial semantics is visible in the syntax. Pronominal non-contextual uses have the distribution of noun-phrases of the relevant class (26).

- (26) a. *A-sɛɛk a-cɛɛn a-jaalɔjaw.*
 SG-woman(A) CLA-some SI:CLA-came
 A woman came.

- b. *A-cεεn a-jaalɔjaw.*
 CLA-some SI:CLA-came
 Someone came.

c.

- D-an o-jokolɔm di ka-rεη-ak,*
 clD-REL sI:2SG-saw at SG-sacred.forest(K)-detK
- d-ɔɔ εε Ø-riiηuu Ø-sindε-ey,*
 clD-PRO FUT.NEG sI:clD-reach SG-home(E)-detE
- b-ɔɔ Ø-εεtε e-reuu.*
 clB-PRO sL:clD-must INF-stop

‘[What you saw [in the sacred forest]_i], it_j will not reach_j the home, it_j must stay there_i.’

The adverbial non-contextual uses of the classes B, D’, T, M and N, in contrast, cannot function as arguments and in particular, they cannot trigger subject agreement, and can only behave as adverbs occupying the topic position, with default CLD agreement (27a/b/c, to be compared with 27a’/b’/c’, where forms from the same morphological paradigm act as pronouns in the subject slot triggering verb agreement).¹⁶

(27) No subject agreement

- a. *Ü-to Ø-loi-ut / *ti-loi-ut.*
 DEM-CLT SI:CLD-be.far-NEG / *SI:CLT-be.far-NEG
 ‘There (CLT), it is not far (CLD).’ (locative, clT)
- a’. *Ü-yo e-loi-ut.*
 DEM-CLE SI:CLE-be.far-NEG
 ‘This one (village, CLE) is not far.’

¹⁶ Class D agreement acts as default agreement for phrases that occupy the topic position at the left periphery of the clause but lack a status in the agreement system, much in the same way as the subject clitic *ça* in French. This is apparent in (i), where the subject index of class D of the verb *-let* ‘not to be’ resumes the nominalised clause *man kōñulak kokañɔ* ‘(the fact) that children are spoilt’.

- (i) *Man kō-ñul-a-k kō-kañɔ, Ø-let bok-anɔɔsan.*
 that pl-child(BK)-DET-CLBK SI:CLBK-be.spoilt SI:CLD-not.to.be CLBK-any
 ‘If children are spoilt, there are certain people who are responsible.’
 lit. ‘That children are spoilt, it is not everybody.’

- b. M-ɔɔ-mʊ Ø-jak-ʊt / *mʊ-jak-ʊt.
CLM-DEM-CLM **SI:CLD**-be.good-NEG / ***SI:CLM**-be.good-NEG
 ‘Thus (=in this way), it is not good.’
- b’. S-ɔɔ-sʊ sɪ-jak-ʊt.
CLS-DEM-CLS **SI:CLS**-be.good-NEG
 ‘Those ones (dogs, CLS) are not good.’
- c. N-ɔɔ Ø-naam-ʊt / *nɪ-naam-ʊt.
CLN-PRO **SI:CLD**-be.similar-NEG / ***SI:CLN**-be.similar-NEG
 ‘Then (=by that time), things were different.’
- c’. S-ɔɔ sɪ-naam-ʊt.
CLS-PRO **SI:CLS**-be.similar-NEG
 ‘They (cows, CLS) are different.’

Note that the analysis of a zero subject index as CLD agreement is supported by the fact that CLD forms such as *d-ɔɔ* ‘that’ or *di-cɛɛn* ‘something’ in subject position appear with subject agreement marked by a phonologically null subject index contrasting with the non-null indices of the other agreement patterns.

Furthermore, the classes involved in adverbial non-contextual uses (CLB, CLM, CLT, CLD’, CLN) do not form a homogeneous group with respect to anaphoric uses. The agreement classes CLB and CLM have corresponding noun-forms and can be found in agreement chains with a nominal form in the role of controller, while CLN has no nouns and consequently cannot be found in such a configuration. The agreement classes CLT and CLD’ only have one noun corresponding to the class but show a particular behaviour in head-modifier constructions.

In Jóola Fóoñi when the role of subject is fulfilled by a head-modifier construction (28a), if the head noun can be retrieved from the context, it is possible to delete it without any change in the subject index prefixed to the verb, as in (28b).

- (28) a. Esuk-e-y ʊ-yʊ e-loi-ʊt
 village-DET.CLE DEM-CLE **SI:CLE**-be.far-NEG
 ‘This village (CLE) is not far (CLE).’

- b. \bar{U} -y \bar{o} e-loi-ut
 DEM-CLE **SI:CLE**-be.far-NEG
 ‘This one (CLE) is not far (CLE).’

By contrast, with subject NPs consisting of *b-in / b-an*, *t-in / t-an* or *d-in / d-en* and a modifier, if the head noun is deleted, the verb can only express class D agreement (marked by a zero-prefix). This is illustrated in (29) for *t-in / t-an*, but NPs consisting of *b-in / b-an* or *d-in / d-en* with a class B or class D’ modifier behave exactly in the same way.

- (29) a. **Tn-at** \bar{v} -t \bar{o} * \emptyset /^{ok}t \bar{i} -loi-ut
 place-DET.**CLT** DEM-**CLT** ***SI:CLD/SI:CLT**-be.far-NEG
 ‘This place (cIT) is not far (cIT).’ (head noun cIT)
- b. Agreeing N-less use of cIT is not possible. (\neq 28 b)
 \bar{U} -t \bar{o} *t \bar{i} -loi-ut
 DEM-**CLT** ***SI:CLT**-be.far-NEG
Not: ‘This place (cIT) is not far (cIT).’
- c. \bar{U} -t \bar{o} \emptyset -loi-ut
 DEM-**CLT** **SI:CLD**-be.far-NEG
 ‘There (cIT), it is not far (cID).’ (non-contextual cIT)

Consequently, \bar{v} -t \bar{o} can act as a modifier of *t-in-a-t ~ t-an-a-t*, but contrary to other forms having the same morphological structure (such as \bar{v} -y \bar{o} ‘this one (CLE)’), does not license the ellipsis of its head. The explanation is that, left alone, \bar{v} -t \bar{o} is an adverb (‘there’) and cannot fulfill the role of subject. As an adverb, the class T form of the demonstrative can only occupy the topic position, the subject role being taken over by the index of class D expressing vague reference to things.

4.2.2 Class-inflected hosts and non-contextual class marking

In the previous section we have shown that the availability and the syntactic category of non-contextual uses depend on the class marker. Here we show that non-contextual uses also depend on the type of class-inflected host.

In general, non-contextual uses concern determiner-like elements such as *clX-cɛɛn* ‘some’, the 3rd person pronoun *clX-ɔɔ* and the relativizer *clX-an*. The non-contextual uses of the relativizer *clX-an* have already been listed in (20). The same range of non-contextual uses is found with the demonstratives, the 3rd person pronoun *clX-ɔɔ*, and determiner-like elements such as *clX-cɛɛn* ‘some’, *clX-anɔɔsan* ‘any’, or *clX-acɪla* ‘aforementioned’. In (30) we list the non-contextual uses of the indefinite determiner *clX-cɛɛn* ‘some’

(30)

	CLASS	<i>clX-cɛɛn</i> ‘some’	NON-CONTEXTUAL USE TRANSLATION
	class A	a-cɛɛn	‘someone’
	class BK	kɔ-cɛɛn	‘some persons’
	class E	ɛ-cɛɛn	‘something’
	class S	sɪ-cɛɛn	‘some things’
	class B	bɔ-cɛɛn	‘somewhere’
	class U	ɔ-cɛɛn	‘something’
	class F	fɔ-cɛɛn	— no non-contextual uses
	class K	kɔ-cɛɛn	— no non-contextual uses
	class J	ʝɪ-cɛɛn	— no non-contextual uses
	class M	mɔ-cɛɛn	‘somehow’
	class Ñ	ñɪ-cɛɛn	— no non-contextual use with target -cɛɛn
	class T	tɪ-cɛɛn	‘somewhere’
	class D´	dɪ-ceen	‘somewhere’
	class D	dɪ-cɛɛn	‘something’
	class N	nɪ-cɛɛn	‘sometimes’

Non-contextual uses of classes with the same meanings illustrated in (30) are found with *clX-ɛkon* ‘one, same’, but not with the other numerals. As regards the adjectives and the genitival linker *clX-atu*, we have examples for classes A, BK, and D (for example *r-ajakɛ* ‘CLD-good, something good’, *k-atu Dakaar* ‘CLBK-genitive Dakar, the people of Dakar’), but not for the other classes¹⁷.

¹⁷ Note that clM has non-contextual uses with the genitive linker, but not with the meaning of “manner” illustrated in (30) – see the discussion of exs (25).

There are also non-contextual uses of classes limited to a particular type of hosts. In particular, class Ñ̃ departs from the other classes that have non-contextual uses in that it only has non-contextual uses with quantitative modifiers (31a), not e.g. with the relativiser (31b) or the determiners (31c). In their non-contextual uses, the class Ñ̃ forms of quantitative modifiers act as iterative adverbs. Note that, in the present state of the language, none of the nouns that govern agreement pattern Ñ̃ has a lexical meaning that could be related to this use of class Ñ̃.

- (31) a. ñ̃-amεεηε 'several times, often' < amεεηε 'numerous'
 b. ñ̃-an CLÑ̃-relativiser: contextual uses only
 c. ñ̃-oo ñ̃-ey
 CLÑ̃-pron CLÑ̃-wh - contextual uses only

Class M is another case of interaction between host and non-contextual uses of class-inflection. Class M forms have an adverbial non-contextual use with the usual range of hosts (*clX-cεen* 'some', the 3rd person pronoun *clX-əə* and the relativizer *clX-an*), but they also have a pronominal non-contextual use, limited to the genitival linker and the possessive, in which they can be glossed 'what concerns X' or 'what makes the particularity of X' (see examples (25)). Here again, none of the nouns governing agreement pattern M has a lexical meaning corresponding exactly to either of these non-contextual uses of class M forms.

- (32) M-əəl-tul mɔ-bamban.
 CLM-POSS-I:CLBK SI:CLM-has.finished.
 lit. 'Theirs (CLM) has finished > 'It's over for them.'

Class-inflection is also found on NON-SUBJECT INDICES in Jóola Fóoñi that are bound pronominal elements used as arguments on predicates and as possessives in nouns.

Contrary to subject indices, syntactically obligatory and prefixed to verb stems, non-subject indices are syntactically optional suffixes. However, they do not behave uniformly in their placement on verbal predicates. While the non-subject indices for the human classes A/BK are closer to the verb stem in the same slot that hosts 1st and 2nd person indices (33a/b), the remaining classes appear in a more peripheral position (33c/d/e). Several non-subject indices can combine. As illustrated in (33) this is particularly apparent in the tenses whose formation

involves a reduplicative suffix.¹⁸ Note that, for the classes that have adverbial non-contextual uses (CLB, D', T', M, N), the non-subject indices can express the same adverbial value as the corresponding non-contextual free forms. The non-subject indices of these classes occupy the same morphological slot as *-bɔ* 'there' in (33d/e).

(33) The position of non-subject indices

- a. *ku-jɔk-t-jɔk*
sI:clBK-see-I:2SG-RDPL
 'They saw you' (non-subject index 2SG)
- b. *ku-jɔk-ɔɔ-jɔk*
sI:clBK-see-I:clA-RDPL
 'They saw him/her'
- c. *ku-jɔ-jɔk-yɔ*
sI:clBK-RDPL-I:clE
 'They saw it(clE)' (for example *ε-yɛn-ɛy* 'the dog(E)')
- d. *ku-jɔk-ɔɔ-jɔk-bɔ*
sI:clBK-see-I:clA-RDPL-I:clB
 'They saw him/her there'
- e. *ku-jɔ-jɔk-yɔ-bɔ*
sI:clBK-see-RDPL-I:clE-I:clB
 'They saw it(clE) there' (for example *ε-yɛn-ɛy* 'the dog(E)')

The behaviour of non-subject indices further confirms that non-contextual uses of *clÑ* do not behave on a par with the other classes yielding adverbial non-contextual uses. While non-subject indices of the classes B, D', T, M, N have adverbial uses corresponding to *there clB, D', T), thus (clM)* and *then (clN)*, the *clÑ* non-subject index only has argumental uses that are anaphoric to a noun of class Ñ.

4.3 Comparing contextual and non-contextual uses of class marking

As shown in sections 4.1. and 4.2, noun-less uses of class-inflection in Jóola Fóoñi do not present a uniform picture.

(34) a. Some class-values do not have non-contextual uses (classes F/K/J cf (7)).

¹⁸ The reduplicative suffix does not carry any particular TAM value, and is best analyzed as a finiteness marker, since it occurs obligatorily in some independent tenses but not in the corresponding relative tenses.

- b. Some class-values do not have contextual uses (the orphan classes D and N).
- c. Class Ñ has non-contextual uses only with quantitative modifiers.

(35) Syntactic properties

- a. **Contextual** noun-less uses are possible for 11 of the 13 class-values that have corresponding nouns (A, BK, E, S, B, U, F, K, J, M, and Ñ), but not for the two classes T and D', i.e., the two classes that have a unique potential controller (*t-in / t-an* and *d-in / d-en* respectively)
- b. **Non-contextual** uses fall into two groups:
 - i. classes A, BK, E, S, U and D give rise to **pronominal** non-contextual uses
 - ii. classes B, T', T, and N give rise to **adverbial** non-contextual uses
 - iii. class M is the only class that has both pronominal and adverbial non-contextual uses (but with different meanings, and different hosts)

In Jóola Fóoni all the words or phrases that can fill the modifier slot in a noun-modifier construction and express gender-number agreement with their head can also constitute contextual class-inflected headless NPs that are deictic or anaphoric to a noun. Non-contextual uses are neither anaphoric nor deictic and they are the only configurations possible for the orphan classes that do not have any nouns of the corresponding agreement class. This situation gives rise to three cases, exemplified here with the stem *-ajake* 'good' (< *-jak* 'be good'). First, with the classes F/K/J that only admit contextual construals, the headless use implies the possibility of retrieving an understood singular controller controlling agreement pattern F, K or J, as in (36). Secondly, the orphan classes D and N only admit a non-contextual construal: the form *r-ajake* "c1D-good" can only have a headless use in which it is interpreted as 'something good' (37). With agreement classes that admit both contextual and non-contextual construals, the headless use is ambiguous. In its headless use, *w-ajake* "c1U-good" can be interpreted as 'the good ones' with reference to the plural of an implicit controller of gender B/U or K/U retrievable from the context as in (36a), but the non-contextual construal is also possible (36b).

- (36) (fó-rum) f-ajake
 (SG-word(F)) CLF-good
 'a good one'

(clF – contextual use only – anaphoric to a noun governing clF agreement – e.g. *fɔ-rim*
'word(F)')

(37) *r-ajakε*

CLD-good

'something good' (orphan class clD – non-contextual use only)

(38) a. (*u-samata*) *w-ajakε*

(PL-shoe) CLU-good

'good ones' (referring to shoes, contextual use)

b. *w-ajakε*

CLU-good

'something good' (non-contextual use)

Headless NPs may include two or more forms inflected for the same class, as in (39)

(39) a. *ɔ-m-ε* *∅-an* *ɪ-saafεñaa*
DEM-CLA-PROX CLA-REL SI:1SG-be.greeting

'this person that I'm greeting'

b. *ɔ-t-ε* *t-an* *ɪ-lakɔñaa*
DEM-CLT-PROX CLT-REL SI:1SG-be.sitting

'there where I'm sitting'

The following table summarises the properties of noun-less class-marking discussed in this section

(40)

	The agreement class has corresponding noun-forms	non-contextual uses ok	pronominal Non-Contextual use	adverbial Non-contextual use
cl. A	+	+	+	–
cl. BK	+	+	+	–
cl. E	+	+	+	–
cl. S	+	+	+	–
cl. F	+	--	--	--
cl. K	+	--	-- ¹⁹	–
cl. B	+	+	–	+
cl. Ñ	+	quantitative modifiers only		+
	(only 4 nouns)			
cl. U	+	+	+	–
cl. J	+	--	--	--
cl. M	+	+	(+) poss & genitive linker only	+
cl. T	+	+	–	+
	(only one noun)			
cl. D'	+	+	–	+
	(only one noun)			
cl. D	–	+	+	–
cl. N	–	+	–	+

¹⁹There is one inflected form of cLK that appears with ethnic adjectives and derives the name of the language, which could perhaps be analysed as a non-contextual use of cLK limited to a subset of adjectives: *ku-joolɔɔy* ‘the Jóola language’. This can be explained etymologically as the reduced form of the full noun phrase *ka-sancen ku-joolɔɔy* ‘SG-language(K) CLK-Jóola’. However, synchronically, another possible analysis is that the use of the CLK inflection here is not a non-contextual use of CLK inflection but a derivational use of gender morphology, as found e.g. in Spanish pairs of the type *manzana/ manzano* ‘apple(F)/ apple-tree(M)’.

5. Class-values and the relative linker

In this section we take a closer look at the role of class-inflection on the relative linker. We will examine non-contextual uses of the relative linker and headed relatives separately (sections 5.1 and 5.2).

5.1 Non-contextual uses of the relative linker

We have seen in section 3 that the non-contextual values for the different class-values do not behave uniformly: classes CLA, CLBK, CLE, CLS, CLU and CLD yield pronominal non-contextual uses while classes CLM, CLB, CLT, CLD' and CLN yield adverbial non-contextual uses.

For non-contextual uses of the relative linker, this contrast is reflected in the availability of free relatives in JF. The non-contextual uses of the relative linker inflected for classes CLA, CLBK, CLE, CLS, CLU and CLD are pronominal and the constituent introduced by the relative linker corresponding to these classes behaves like a free relative: formally these constituents look like relative clauses but distributionally they behave like DPs.

In contrast, the non-contextual uses of the relative linker inflected for the classes CLM, CLB, CLT, CLD' and CLN - while morphologically entirely parallel to the other class values - do not introduce free relatives: these constituents only have an adverbial distribution and cannot function as arguments.

The contrast between the non-contextual uses of the relative linker with different class-inflection values suggests that the relative linkers inflected for classes CLM, CLB, CLT, CLD' and CLN behave like complementisers introducing adjunct clauses.

Non-contextual uses of the relativiser inflected for the locative classes can be taken up by a locative non-subject index on the verb. This locative can correspond to a subcategorised locative argument (41a) or to a locative adjunct (41b). The locative non-contextual use of the relativiser commutes with locative PPs (41b/c). The non-subject index can only be used as an argument if a head-noun of the matching agreement pattern is present (42a/b).

(41) a. t-an a-wəlɪm, nt-jajaw-tɔ
 CLT-RELSI:CLA-was.born SI:1SG -went-I:CLT
 'Where he was born, I went there.'

b. t-an t-nɛnɔm ba-gaas-ab, bɔk-an-ak
 CLT-RELSI:1SG-put SG-luggage(B)-DET.CLB PL-person(BK)-DET.CLBK
 kɔ-bembɛŋ-tɔ
 SI:CLBK-gathered-I:CLT

‘Where I put the luggage, the people gathered there.’

c. *balamök ε-luop-ey, bök-an-ak kō-bembeŋ-to*
 behind SG-house(E)-DET.CLE PL-person(BK)-DET.CLBK SI:CLBK-gathered-**I:CLT**

‘Behind the house, the people gathered there.’

(42) a. **t-an a-wolum, ni-mammanj-tō*
 CLT-REL SI:CLA-was.born SI:1SG -know-**I:CLT**

‘Where he was born, I know *there.’

b. *t-un-at t-an a-wolum, ni-mammanj-tō*
 SG -place(T)-DET.CLT CLT-REL SI:CLA-was.born SI:1SG-know-**I:CLT**

‘The place where he was born, I know it.’

6.2 Class-inflection of the relative linker in headed relative clauses

As a rule, in headed relative clauses, the relativiser obligatorily agrees with the head noun and does not mark the function of the relativised NP in the relative clause, which makes it possible to analyse it as a mere linker in a head-modifier construction.

(43)

<i>a-sēek-aw</i>	<i>∅-an</i>	<i>ɪ-jökōm</i>	‘the woman I saw’	(A)
SG-woman(A)-DET.CLA	CLA-REL	sI:1sg-saw		
<i>kō-sēek-ak</i>	<i>k-an</i>	<i>ɪ-jökōm</i>	‘the women I saw’	(BK)
PL-women(BK)-DET.CLBK	CLBK-REL			
<i>ε-yēn-ey</i>	<i>y-an</i>	<i>ɪ-jökōm</i>	‘the dog I saw’	(E)
SG-dog(E)-DET.CLE	CLE-REL			
<i>st-yēn-as</i>	<i>s-an</i>	<i>ɪ-jökōm</i>	‘the dogs I saw’	(S)
PL-dogs(S)-DET.CLS	CLS-REL			
<i>bu-bæŋ-eb</i>	<i>b-an</i>	<i>ɪ-jökōm</i>	‘the tree I saw’	(B)
SG-tree(B)-DET.CLB	CLB-REL			
<i>u-bæŋ-ew</i>	<i>w-an</i>	<i>ɪ-jökōm</i>	‘the trees I saw’	(U)
PL-trees(U)-DET.CLU	CLU-REL			
<i>f-al-af</i>	<i>f-an</i>	<i>ɪ-jökōm</i>	‘the river I saw’	(F)
SG-river(F)-DET.CLF	CLF-REL			
<i>k-al-ak</i>	<i>k-an</i>	<i>ɪ-jökōm</i>	‘the rivers I saw’	(K)
PL-rivers(K)-DET.CLK	CLK-REL			

ju-bɛcɛl-aj	j-an	ɪ-jokom	‘the palm tree I (J)
SG-palm.tree(J)-DET.CLJ	CLJ-REL		saw’
mʊ-bɛcɛl-am	m-an	ɪ-jokom	‘the palm trees I (M)
PL-palm.trees(M)-DET.CLM	CLM-REL		saw’
ñɪ-wɔj-añ	ñ-an	ɪ-jokom	‘the chain I saw’ (Ñ)
SG-chain-DET.CLÑ	CLÑ-REL		
t-un-at	t-an	ɪ-jokom	‘the place I saw’ (T)
SG-place-DET.CLT	CLT-REL		
d-in-ɔd	d-ɛn	ɪ-jokom	‘the place I saw’ (D’)
SG-place-DET.CLD’	CLD’-REL		

The following example, in which the head noun corresponds to the subject of an embedded clause, illustrates the fact that the relativizer remains the same whatever the function of the head noun within the relative clause.

- (44) kʊ-sɛɛk-ak k-an a-mansa-aw a-maɲeriitum
 PL-women(BK)-DET.CLBK CLBK-REL SG-king-DET.CLA SI:CLA-does.not.want
 man ku-pur
 that SI:CLBK-go.out
 lit. ‘the women that the king doesn’t want that they go out.’

The examples (43/44) show that in headed relative clauses, the linker agrees in class with the head noun. In contrast, relative clauses introduced by locative nouns *t-an*, *d-ɛn* or locative *b-an* have the ability to modify not only nouns associated to the corresponding agreement pattern, but also nouns belonging to any other gender, as in (45).

- (45) ɛlʊɔp-ɛ-y d-ɛn ɔ-jɛɛ-m bɛɛt e-loi-ut.
 house-DET-CLE CLD’-REL SI:2SG-go.ICPL-ACT towards SI:CLE-be.far-NEG
 ‘The house where you are going is not far.’

While the relativisers of the other classes function like agreeing linkers that do not mark the function of the relativized element, the locative relativisers function like locative pronominals, relativizing a subcategorised (46-a) or circumstantial (46-b) locative in the relative clause.

- (46) a. e-suk-ey t-an ɪ-jawom

SG-village(E)-DET.CLE CLT-REL SI:1SG-went

‘the village where I went’

b. e-suk-ey t-an t-nɔɔmɔm si-bæ-əs

SG-village(E)-DET.CLE CLT-REL SI:1SG-bought PL-cow(S)-DET.CLS

‘the village where I bought the cows’

7 Analysis

In Jóola Fóoñi the formally homogeneous system of class-inflection markers shows heterogeneity in the syntactic and semantic behaviour of the different class-values.

Firstly, the inflectional paradigm of adnominals and pronouns has preserved the two orphan classes CLD and CLN that lack any potential nominal controllers in the present state of the language. As the non-contextual uses marked for CLN are adverbial in nature, these inflection forms of CLN never appear in a canonical controller-target agreement configuration and CLN does not have corresponding subject agreement indices.

Secondly, while in languages with a small inventory of gender-inflection marking like German or Spanish have non-contextual uses for all available gender-values, Jóola Fóoñi shows that the set of agreement markers can split in whether they allow non-contextual uses: classes F/K/J do not, while the other classes do.

(47) a. el inteligente - los inteligentes the intelligent one.MS/ones.MPL

b. la inteligente - las inteligentes the intelligent one.FS/ones.FPL

In Spanish, the non-contextual uses of gender have a nominal distribution. JF shows that the syntactic properties of the non-contextual use can depend on the class-value of the inflection: pronominal with classes A, BK, E, S, U, D, adverbial with classes B, D’, T, N and Ñ, both pronominal and adverbial with cIM. The possibility of allowing non-contextual uses and the syntactic properties of the non-contextual uses where they exist therefore appear to be an intrinsic property of the class that has to be marked in the lexicon, not the product of a syntactically uniform mechanism (for example licensing by an empty noun). In particular, the class values of Jóola Fóoñi differ in whether they allow free relative uses.

The original agreement patterns associated with time, location and manner are being reanalysed as markers of adverbial temporal, locative and manner XPs that do not function as noun-phrases anymore and differ from NPs in their agreement behaviour. For subject agreement the agreement classes with adverbial non-contextual uses behave on a par: Non-

contextual uses of the adjunct agreement classes cannot occupy subject position and they appear as adjuncts to a clause with a phonologically null subject index that can be analyzed as an expletive / default subject of class D (see ex 27).

Furthermore, in their non-contextual uses the time/location/manner classes have a corresponding adverbial non-subject index (see ex xx). In this respect the behaviour of the adjunct classes is parallel to the systems found with locatives in some Romance languages where locative PPs have relative and adverbial non-subject forms integrated into pronominal paradigms as e.g. French *où* “REL.where” and *y* “there” but no subject pronouns and no verbal subject agreement forms. The system of Jóla Fóoni non-subject clitics is more systematic than French in that a wider range of circumstantial clitics, including time and manner in addition to the locative circumstantials is integrated into the weak pronominal system.

With respect to the inflected relativiser the classes yielding adverbial non-contextual uses do not pattern together, however.

The locative forms of the relativiser are not targets of agreement with the head-noun: locative relativisers allow headed relative uses irrespective of noun-class of the head noun (see 45) as long as the relativized position is a locative. The lack of agreement can therefore be interpreted as an indication that the locative relativisers are reanalysed as locative relative pronouns, so in contrast with the relativising linker for other classes the locative class marking with a locative interpretation is not an instance of agreement but marks the syntactic function inside the relative clause. This pattern does not extend to the class-values cIN and cIM associated with temporal and manner interpretation in their non-contextual use. The relativiser with the temporal agreement of cIN only has non-contextual adverbial uses: when combining with temporal nouns such as ϵ -mit ‘year(E)’ the relative clause cannot be in the temporal form but is subject to gender agreement with the noun (49). The configuration of a noun meaning ‘manner’ with the manner form of the relativiser does not arise in JF either, since the nouns expressing such meanings belong to other agreement classes.

- (49) ϵ -mit-ey y-an t-wolum
 SG-year-DET.CLE CLE-REL SI:1SG-was.born
 ‘the year that I was born’

Conclusion

Jóla Fóoni has a morphologically transparent system of class-inflection that appears as agreement-marking on a wide range of modifiers, adnominal elements and pronouns. The

paradigm of class-inflection in JF shows that inflectional systems can preserve inflectional values that no longer operate as agreement markers synchronically (cIN) in addition to a default agreement form (cID). Furthermore, inflectional class-values have non-contextual uses that are independent of agreement with a nominal, yielding non-contextual uses associated with clear semantic content. Strikingly, the non-contextual uses of the different class values are syntactically heterogeneous: some classes yield pronominal elements while other classes result in adverbial elements. In particular, only the classes yielding pronominal non-contextual uses have corresponding free relatives and only the classes yielding adverbial non-contextual uses allow adverbial uses of their non-subject indices.

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Abbreviations

Abbreviations follow the Leipzig glossing rules, except for ACT = actualiser, CLX = inflection of class X, ICPL = incomplete, I:X = non-subject index (bound pronoun) of inflection X, POSS = possessive, SI:X = subject index of inflection X

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