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Noun classes and grammatical gender in Wolof

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Abstract: In this paper, we propose a reassessment of Wolof noun morphology and morphosyntax. Wolof is usually said to possess a total of 10 noun classes (8 for the singular, 2 for the plural), marked today exclusively on agreement targets. We provide evidence that two more plural noun classes must be recognized, which have so far been misinterpreted as “collective” rather than plural: the evidence we provide is morphosyntactic (from verb agreement) as well as morphological (from class-related asymmetries in the paradigm of the indefinite article). As for method, the main thrust of the paper consists in showing that an accurate analysis of the Wolof data must make use of the three distinct notions “noun class”, “inflectional class” and “agreement class” (or gender). Under the analysis defended here, Wolof turns out to have a fairly complex gender system, featuring 17 distinct gender values. Our analysis – and especially the discussion of Wolof so-called “collectives” – also bears on the general theoretical issue of how to establish the values of the number category.

Keywords: gender, noun class, collective, (ir)regularity, defectiveness

1 Introduction

All studies of Wolof grammar describe the contrast among nouns like those in (1a-g) in terms of these nouns’ belonging to different noun classes (henceforth NCs):

- | | | | | | | |
|-----|---------------|-------------|--------------------|-------------|-----------------|-------------|
| (1) | a. xaj | b-i | b. till | g-i | c. janax | j-i |
| | dog | CL-DEF.PROX | jackal | CL-DEF.PROX | rat/mouse | CL-DEF.PROX |
| | ‘the dog’ | | ‘the jackal’ | | ‘the rat/mouse’ | |
| | d. xar | m-i | e. xorondom | s-i | f. yamb | w-i |
| | sheep | CL-DEF.PROX | red ant | CL-DEF.PROX | bee | CL-DEF.PROX |
| | ‘the sheep’ | | ‘the red ant’ | | ‘the bee’ | |

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- g. **xaj/jargoñ/janax/ñawaal/xar/xorondom/yamb** **y-i**
 dogs/spiders/mice (or rats)/moths/sheep (PL)/red ants/bees CL-DEF.PROX
 ‘the dogs/spiders/mice (or rats)/moths/sheep/red ants/bees’

Nouns assigned to different NCs are distinguished by their NC marker, which “appears in the form of a single consonant on nominal dependents such as determiners and relative particles” (Mc Laughlin 1997: 2). In (1), this is illustrated with the proximal definite article **C-i**.

We intend to demonstrate that for an accurate description of the Wolof data it is useful to distinguish among:

- (2) a. Noun classes (NCs);
 b. Agreement classes (ACs, or genders);
 c. Inflectional classes (ICs).

Making use of these notions, we shall show that our data reveal some interesting differences from the currently available descriptions of the aspects of Wolof noun morphology and morphosyntax that will be analysed in what follows. These have not been elucidated satisfactorily up to now, partly because most analyses have focussed exclusively on (2a) (defined in terms of word forms, see Section 3), not paying sufficient attention to (2b), i. e. to the agreement pattern selected by the noun lexeme as a whole.

The paper is organized as follows. After some preliminaries on the data and the definition of NC (sections 2–3), in Section 4, we address the three categories in (2a-c), demonstrating that they are all relevant for the description of Wolof. Sections 4.1 and 4.2 deal with ICs and NCs, respectively, while in Section 4.3 we discuss how NCs map onto ACs. The evidence indicates that Wolof has 12 NCs, rather than 10 as commonly assumed, and combines them in such a way as to contrast 17 genders, several of which “inquate” (in Corbett’s 1991: 170–175 sense). Failure to recognize this in previous research (Section 5) was due to the miscategorization of two of the plural classes as “collectives”. We shall demonstrate that what have been defined as “collective” in the literature are indeed instances of the plural value of the category number. Only under this analysis, in particular, is it possible to account for the asymmetries between the paradigms of definite and indefinite articles. The latter, as we show in Section 6, display either defectiveness or otherwise irregularity in certain NCs: crucially, irregularity is found only in the (previously not recognized) plural class **si**, while the homophonous singular **si** has a regular indefinite article; likewise, plural **ji** (also previously unrecognized) has an irregular indefinite article, contrasting with the homophonous singular **ji** class, which is defective of the indefinite article. Thus,

our account of paradigmatic (ir)regularity and defectiveness in the indefinite article adds to the burden of proof for proponents of the traditional analysis of Wolof NCs. Finally, in sections 7–8, we take stock of our discussion of the Wolof facts, and conclude that a distinction between NCs, defined in terms of word forms, and ACs (i. e. genders), defined in terms of whole lexemes, is needed.

2 The language

Wolof is a Niger-Congo language of the North Atlantic branch of the Atlantic-Congo subfamily (Greenberg 1963: 8; Sapir 1971: 73). With its neighbours Fula and Serer, it forms a subdivision currently labelled Senegambian (cf. Lewis et al. 2015), although this grouping, established on lexicostatistic grounds by Sapir (1971) (followed by Wilson 1989: 87 f.), has been contested by Doneux (1978: 43–45) and Segerer (2010: 4 f.), who regard Nyun and Buy as more closely related to Wolof than Fula and Serer. Wolof is the native language of about four (Lewis et al. 2015) to four and a half million people (Leclerc 2015) in Senegal, where it is the most widely spoken language and the main inter-ethnic lingua franca. It is also spoken in neighbouring countries – Mauritania (around 16,400), Gambia (where it is the second most populous language after Bambara, with about 226,000 speakers), Mali (62,000) and Guinea Bissau – as well as in the diaspora (mainly in Europe and the USA). Our data, given in the standard orthography used in Fal et al. (1990), represent the variety spoken in the Senegalese town of Mbakke (Mbacke), about 150 km east of Ndakaaru (Dakar), in the territory of the Wolof heartland – the cradle of “deep” Wolof (Mc Laughlin 1997: 19) – in the traditional kingdom of Bawol. This is the mother tongue of the first author, whose native intuitions have been checked by requesting grammaticality judgements from six informants, aged between 24 and 84.

3 On the notion “noun class”

The traditional subdivision of Wolof nouns into different NCs relies exclusively on determiner agreement as shown in (1): in fact, selection of one form of the determiner, picked from a set of possible alternatives within its paradigm (cf. (13) below), fits the definition of agreement as “systematic covariance between a semantic or formal property of one element and a formal property of another” (Steele 1978: 610). In other Niger-Congo (including Atlantic) languages, on the other hand, not only is there NC-agreement, but also nouns themselves are class-marked, as exemplified by Diola-Fogny in (3) (Sapir 1965: 24, 90):

- (3) a. **bu-bə:r-ə-b** **bə-mək-ə-b** **bu-lɔlɔ**
 CL9-tree-DEF-CL9 CL9.REL-big-DEF-CL9 CL9-fall
 ‘The big tree fell.’
- b. **u-bə:r-ə-w** **wə-mək-ə-w** **u-lɔlɔ**
 CL8-tree-DEF-CL8 CL8.REL-big-DEF-CL8 CL8-fall
 ‘The big trees fell.’
- c. **fu-gɔl-a-f** **fu-lɔlɔ**
 CL5-stick-DEF-CL5 CL5-fall
 ‘The stick fell.’

In a diachronic and comparative perspective, the two kinds of systems clearly belong together:

The best-known grammatical feature of the Niger-Congo languages is undoubtedly their system of noun classification which, in a well-preserved, reduced or purely vestigial form, can be traced in every branch of the family, and hence must be reconstructed for proto-Niger-Congo. (Williamson 1989: 31).

From this reconstruction, however, it does not follow that the notion “noun class(ification)” can be used in the same way in the synchronic analysis of systems as different as those of Wolof and Diola-Fogny. Indeed, objective differences in the languages examined seem to be at least partly responsible for the fact that the term “NC” is used in a variety of subtly different meanings in studies in African linguistics and linguistic typology. Some definitions capitalize on agreement while others focus instead on noun morphology, and some refer to the lexeme, while for others “NC” is defined with respect to (either the morphology or the morphosyntax of) a lexeme’s individual word form.¹

- (4) diverging definitions of “noun class”:
- a. agreement, word form: “lorsqu’on parle de classes nominales dans les langues Niger-Congo, on se réfère généralement à un classement des formes nominales selon leurs propriétés d’accord, c’est-à-dire qu’on compte comme deux unités distinctes deux formes susceptibles d’être considérées comme le singulier et le pluriel d’un même lexème.” [‘when one talks about noun classes in Niger-Congo languages, one generally refers to a classification of nominal forms by their agreement properties, which means that one counts as two distinct units two forms that are

¹ We adopt the distinction between morphosyntactic and morphological features as used in Corbett (2006: 122–123; 2012: 49–65).

- liable to be considered as the singular and the plural of one and the same lexeme’] (Creissels 1999: 178f.).
- b. agreement, lexeme: “The eleven genders or noun classes in Yimas (Lower Sepik family, Papuan) manifest themselves with two main classes of agreeers, adjectives and verbs, and again gender contrasts are not always parallel in the singular, dual, and plural” (Plank and Schellinger 1997: 89).
 - c. morphology, word form: “This paper investigates NCs and concordial agreement systems in Niger-Congo languages [...] in Sesotho [...] each noun is prefixed with one of a pair of CV-noun class markers, one used for the singular form, the other for the plural” (Demuth et al. 1986: 453, 455).
 - d. morphology, lexeme: “A large proportion of animate nouns, and some inanimate nouns, have no overt class prefix (hence belonging to Class V, the ‘zero class’); zero class nouns, nonetheless, belong to one of the four genders, as shown by the behaviours of their modifiers.” (Evans et al. 1998: 128).²
 - e. either (4a/b) or (4c/d): “the definition of noun class in Bantu languages has traditionally involved reference to either (a) singular/plural prefix pairings, or (b) the concordial affixes associated with nouns of a given class” (Contini-Morava 2002: 13).
 - f. both (4a/b) and (4c/d): (in Luganda) “Noun classes are usually numbered in pairs, i.e., class 1/2, class 3/4. Each pair is characterized by the presence of two Noun Class Prefixes [...]. Agreement is the other factor indicating the noun class of a stem” (Ferrari 2005: 161).

What is displayed in (4) is just a fragment of the terminological intricacies one faces in this area. For instance, (4d) falls under the definition of “inflectional class” as current in theoretical morphology (cf. Section 4.1). On the other hand, for “NC” in the sense (4a), Nichols (1992: 124–127) uses “concord subclass”, while she uses “gender” for a set of “concord subclasses” held together by being selected by morphosyntactically different forms of the same lexeme (i. e. (4b)). The latter, in turn, is the same sense in which the authors exemplified in (4b)

² Though this statement is about Mayali (a non-Pama-Nyungan language of northern Australia), where “Most nouns have no special plural form” (Evans 2003: 168) and also the “case-like nominal suffixes [...] are not true case inflections” (Evans 2003: 136), it is clear that Evans et al.’s (1998: 128) (and Evans’ 2003: 185) use of the term “NC” refers to the lexeme as a whole, viewed paradigmatically, rather than to any of its morphosyntactically defined word forms.

use “NC” as having the same denotation as “grammatical gender”, whereas the two notions are distinguished in (4d).³

It is a matter of debate whether the notion “gender” can be applied to Niger-Congo languages. Positions on the topic range from Meinhof’s (1967: 22) claim that Bantu languages are *Klassensprachen* to which the notion “grammatical gender” cannot apply, to, e. g., Corbett (1991: 43–49, 173), who analyses Bantu NC systems as a particular kind of gender system. We adhere to the latter position and shall demonstrate that this paves the way for an effective account of the Wolof facts.

4 Morphology and morphosyntax of the Wolof noun

Among the notions listed in (2a-c), NC (2a) is omnipresent in descriptions of Niger-Congo languages including Wolof, and analyses of Wolof in terms of (2b) also occur in the typological literature on grammatical gender (see, notably, Corbett 1991: 190–191 on Wolof and Fula). On the other hand, the label ‘Inflectional Class’ (2c) hardly ever occurs in studies of Wolof grammar. In an agglutinative language where most nouns are invariable, lacking any overt number, case or gender marking, this is understandable. However, in view of the facts presented in Section 4.1, it seems that the category IC is indeed needed for an effective description of the data and that, in particular, it cannot be reduced synchronically to what current descriptions of Wolof label “NCs”. Sections 4.2 and 4.3 will then proceed to discuss NCs and gender, as well as their interrelation with each other and with ICs.

4.1 Inflectional classes

“An *inflectional class* is a set of lexemes whose members each select the same set of inflectional realizations.” (Aronoff 1994: 64). By definition, in a

³ Terminologies vary not only among different authors. For instance, Seifart (2010: 720) adopts the equation of NC and gender (4b) – “Following Aikhenvald (2000) and Grinevald (2000), the term ‘noun class’ is used here as a cover term”, i. e. for “noun classes [...] and systems traditionally called gender” – whereas Grinevald and Seifart (2004: 246) use NC in the sense (4a): “The regularity of agreement in Niger-Congo languages generally makes it easy to establish into how many classes noun forms divide (i. e. to how many different possible agreement patterns noun forms may belong).”

language lacking inflectional noun morphology, there are no ICs. Yet, there are languages like English in which ICs must be recognized, even if they play only a marginal role in the morphology. Unlike Old English, in the modern language the overwhelming majority of nouns belong to one and the same class (**son/sons**). However, what are currently treated as “exceptions” in descriptive grammars must be analysed as minor (and diachronically residual) ICs distinct from the major, nearly ubiquitous, one: nominal lexemes with **-en** plural (**ox/oxen**, etc.), with umlaut plural (**mouse/mice**, **goose/geese**) and with (phonologically unpredictable) **f/v** alternation (**wife/wives**), or invariable nouns (**sheep/sheep**).

In Wolof, not unlike in English, the overwhelming majority of nouns belong to just one IC, in that their paradigm reduces to one form – while invariability is exceptional in English. In particular, there is no affixal number marking on nouns, even though one occasionally comes across statements such as the following: “dans la forme **yeen**, **een** est une marque de pluriel [...] qu’on retrouve dans des mots comme **Njuufeen**, **Njóobeen**, **Ndóoyeen**, etc. (la famille des **Juuf**, la famille des **Joob**, la famille des **Ndóoy**, etc. ...)” [“in the form **yeen** [= 2^{PL} personal pronoun, CAB & ML], **-een** is a plural marker [...] which is found also in words like **Njuufeen**, **Njóobeen**, **Ndóoyeen**, etc. (the **Juuf**, **Joob**, **Ndóoy** families, etc. ...)”] (Diouf 1985: 10). Indeed, **-een** is a plural marker in personal pronouns, as seen in (5a) (Diouf 1985: 16–18):

- (5) a. **y-een**, **góor ng-een**
 2-PL man FIN.2-PL
 ‘You.PL are men.’
 b. **y-ow**, **góor ng-a**
 2-SG man FIN.2-SG
 ‘You.SG are a man.’

However, in the family names quoted above, **-een** serves lexeme formation (and is indeed labelled “*dérivatif pluriel*” [plural derivational affix] in Diouf 2009: 51), rather than number marking, as shown by the fact that these names also denote singular family members: “**ab njuufeen** c’est quelqu’un de la famille des **juuf**” [‘**ab njuufeen** ‘a njuufeen’ is somebody from the **juuf** family’] (Diouf 1985: 10n1).

Notwithstanding this lack of number-marking affixation, noun uninflectedness (whereby morphology is “unresponsive to a feature that is syntactically relevant”, (Baerman et al. 2005: 32) is not general, as there are some nouns whose singular and plural forms do differ. Singular/plural alternations (cf. Sauvageot 1965: 74; Diagne 1971: 79; Diouf 2009: 155; Camara 2006: 7–8, etc.)

may take different forms, illustrated in (6). For clarity, we add the proximal form of the definite article – already seen in (1) – after each word form, to show that the two occur in distinct environments (thus glosses expand to ‘the *x*/the *x*’s right here’.)

(6)	singular	plural	gloss
a.	mbaam mi	baam yi	‘the donkey/-s’
	mbootaay mi	bootaay yi	‘piggyback/-s’
	ndono li	dono yi	‘heritage/-s’
	ndab li	dab yi	‘utensil/-s’
	ndënd mi	dënd yi	‘drum/-s’
	ngåttaan mi	gåttaan yi	‘short one/-s’
b.	mbagg mi	wagg yi	‘shoulder/-s’
c.	baaraam bi	waaraam yi	‘finger/-s’
	boroom bi	woroom yi	‘owner/-s’
	buur bi	wuur yi	‘king/-s’
	buy bi	wuy yi	‘baobab fruit/-s’
d.	pepp mi	fepp yi	‘grain/-s’ ⁴
e.	këf ki	yëf yi	‘thing/-s’
f.	bët bi	gët yi	‘eye/-s’
	bëñ bi	gëñ yi	‘tooth/teeth’
g.	loxo bi	yoxo yi	‘hand/-s, arm/-s’
h.	waa ji	gaa ñi	‘guy/-s’

In all these pairs of forms, the difference between singular and plural is marked by an alternation in the initial consonant. The alternations observed in (6) also occur elsewhere in the language, in connection with word-formation processes. Thus, prenasalization of the voiced initial consonant (seen in the singular form in (6a)) occurs in diminutive (7a) and deverbal noun (7b) formation (cf. Delafosse 1927: 31; Senghor 1943: 93; Ka 1981: 54–59; Thiam 1987: 22, Guérin 2011: 31):

⁴ Camara (2006: 8) also reports **pan/fan** ‘day/days’, showing the same **p/f**-consonant alternation. However, this paradigm is no longer attested in our variety, where the singular form in colloquial use is **fan**: e.g. **benn fan jäll na** ‘one day has passed’ (cf. also Fal et al. 1990: 70, who register invariable **fan wi** ‘the day’/**ñaari fan** ‘two days’). The older singular form **pan** still occurs only in the fixed expression mentioned in (11b) below.

- (7) a. **garab gi** (pl. **yi**) → **ngarab si**
 ‘the tree’ ‘the little tree’
janq bi (pl. **ji**) → **njanq si**
 ‘the little girl’ ‘the very little girl’
- b. **digël** → **ndigël li**
 ‘advise.INF’ ‘advice’
jang → **njang mi**
 ‘study.INF’ ‘the education/knowledge’

It is generally maintained (Rimbaud 1898: 20–22; Delafosse 1927: 29–42; Sapir 1971: 73–74n24; Doneux 1975: 49–50; Mc Laughlin 1997: 6–7) that the consonant alternations in (6) must be traced back to earlier alternations in prefixal NC markers. Compared with Wolof, other North Atlantic languages retain clearer traces of class marking on the noun itself (cf. Mc Laughlin 1997:6), of the type generally displayed by Niger-Congo languages. Fula shows a) initial consonant mutation (as a residue of class prefixes), b) class suffixes on the noun stem and c) class-sensitive determiners – as seen in **gor-ko oo** ‘the man’/**wor-fe bee** ‘the men’ – whereas Seereer-Siin also retains some prefixes: **o-koor-oxe** ‘the man’/**ø-goor-we** ‘the men’.

In the synchronic grammar of Wolof, however, those in (6a-h) are phonologically and semantically unmotivated alternations, not unlike the one in, say, English **louse/lice**.⁵ By “semantically unmotivated” we mean that the alternations in (6) are not synchronically related to any kind of classes with a referential/semantic motivation, even though the two forms do convey, by definition, a number contrast that is both morphosyntactic and semantic. Lack of phonological motivation, on the other hand, is demonstrated by the fact that the majority of Wolof nouns beginning with the same consonants as those in (6) do not display alternations given the same segmental environment. Take for instance the two lexemes in (8):

- (8) singular plural gloss
mbër mi **mbër yi** ‘the wrestler/-s’
baat bi **baat yi** ‘voice/-s’

⁵ Studies of Wolof give these alternations a much less prominent status than is reserved for alternations like **louse/lice** in accounts of English morphology. Thus, in Fal et al.’s (1990: 110, 270) dictionary, **këf k-** and **yëf y-** are registered as two unrelated (apart from the semantics, ‘thing’) entries, while under entries like **bët b-** (p.45), **buy b-** (p.49) or **loxo l-** (p.124), no information on their plurals is provided, nor are there any separate entries to inform the reader that the corresponding plurals are **gët**, **wuy** and **yoxo**, respectively.

Their paradigms show that there is no general constraint to the effect that, say, **mb-** should turn into **b-** (via loss of prenasalization as in (6a)), or that **b-** should turn to **w-** or **g-** (as in (6c, f)), in the context of plural formation. This is confirmed by the fact that, on the whole, the alternations in (6) tend to be progressively swept away, mostly through generalization of the (formerly) singular forms: “Ces formes de pluriel sont de moins en moins employées, particulièrement en wolof véhiculaire” [‘These plural forms are less and less used, especially in vehicular Wolof’], as Guérin (2011: 85) observes, commenting on **bët/gët** ‘eye’, **baaraam/waaraam** ‘finger’.

There are very few nouns, among those in (6), for which replacing the original plural with the (formerly) singular form results in ungrammaticality, the clearest case being **këf** ‘thing’: **yëf/*këf yi** ‘the.PROX.PL things’. This is the one extreme – (9a) – on a scale by means of which one may represent the observed pattern of gradual replacement:

(9)	singular	plural		
		same as sg.	distinct	gloss
a.	këf ki	*këf yi	yëf yi	‘the thing/-s’
b.	mbagg mi	mbagg yi	%wagg yi	‘the shoulder/-s’
c.	mburu mi	mburu yi	(buru yi)	‘the bread/-s’
d.	bant bi	bant yi	†want yi	‘the bit/-s of wood’
e.	góor gi	góor ñi	*[≠ góor] ñi	‘the man/men’

Many, perhaps most, of the nouns in (6) are presently at stage (9b): their original plural form (e. g. **wagg** ‘shoulders’ in (9b) or **fepp** ‘grains’ in (6d)) is still used by elderly speakers, but in the speech of younger generations tends to be replaced by **mbagg** (9b), or **pepp** (6d), identical to the singular. In this situation, the two morphosyntactic cells of the paradigm are filled asymmetrically, so that, for most items, (6) should be modified as follows:

(10)	singular	plural	gloss
	ndab li	ndab/dab yi	‘the utensil/-s’
	ndënd mi	ndënd/dënd yi	‘the drum/-s’
	loxo bi	loxo/yoxo yi	‘the hand/-s, arm/-s’ etc.

The original singular form is the only one occupying the singular cell, while in the plural there is overabundance (Thornton 2011), i. e., variation between two cell-mates (in the sense of Loporcaro and Paciaroni 2011: 420). Taking a further step, there are nouns like those in (9c), whose original plural nowadays occurs exclusively in proverbial expressions (hence its inclusion in brackets in (9c)), as shown in (11a):

- (11) a. **ay di buru-y sarax**
 trouble become bread-LINK.PL alms
 (literally) ‘Trouble becomes [as common and easy to spread as] the ritual bread for alms.’; i.e.: (if you do not do this or that) bad things will happen
- b. **weer-u benn pan**
 crescent-LINK.SG one day
 ‘The first day of the month’

More rarely, as shown in (11b) with **pan/fan** ‘day/days’ (see fn. 4), one finds lexemes whose original singular (rather than plural) form is preserved in fixed collocations, while it has been ousted elsewhere by the original plural form. Moving one step further along (9), one meets lexemes whose plural is nowadays remembered (e. g., because it occurs in oral poetry), but not used anymore at all, as symbolized with the raised ⁺ in (9d). 19th-century Wolof had more such nouns, as apparent from the evidence in (12), which Becher (2001: 50–52) has gathered from Boilat (1858) and Kobès (1875). (These nouns have long since become invariable: cf. **baadolo b-**, **bakkan b-**, **bopp b-**, **garab g-** in Fal et al. 1990: 38, 41, 47, 81):

- | | | | |
|------|-------------------|-------------------|--------------------|
| (12) | singular | plural | gloss |
| | banta bi | wanta yi | ‘stock’ (cf. (9d)) |
| | badoolo mi | wadoolo yi | ‘peasant’ |
| | bakan bi | wakan yi | ‘nose’ |
| | bopa bi | gopa yi | ‘head’ |
| | garab gi | yarab yi | ‘tree’ |

Finally, in (9e) there are lexemes like **góor** ‘man’ for which no direct evidence whatsoever of a singular/plural alternation is available today (as no form distinct from **góor** occurs; hence the notation *[\neq góor]).

To sum up, the variation schematized in (9) portrays the ongoing lexical diffusion of uninflectedness. Whenever such variation is observed, it is liable to take on sociolinguistic meaning, which is indeed the case here: thus, for instance, retention of traditional plurals such as **gěñ yi** ‘the teeth’ (sg. **běñ bi**) is nowadays perceived as a stereotype (in Labov’s 1972: 248 sense, i. e. a “socio-linguistic varian[t] of which speakers are overtly conscious”, Foulkes et al. 2005: 190), associated with the conservative varieties spoken in the rural areas corresponding to the traditional kingdom(s) of Bawol and Kajoor.

As long as the lexical diffusion of invariability schematized in (9) is not completed, and there are thus exceptions to the largely correct (and longstanding) generalization that, in Wolof, “le substantif est invariable” [‘the noun is

invariable'] (Boilat 1858: 11), the nominal paradigms in (6) must be regarded as instances of minor (and diachronically residual) inflectional classes, much like the paradigms featuring exceptional plurals in modern English (though in English the move is towards regularization, not uninflectedness). In other words, the notion IC is relevant for the description of present-day Wolof. This also has syntactic implications, which become visible, for instance, in phrases containing numerals, but space does not permit us to deal with such syntactic implications here.

4.2 Noun classes

As said in Section 3, the notion “NC” is used in Wolof grammar as in (4a), i. e. classification of nominal word forms by agreement. In this section, we shall follow traditional practice and use this term, postponing discussion of whether the notion “NC” is justified in a synchronic description of Wolof until Section 7.

All descriptions of Wolof invariably assume “eight singular and two plural” classes (Irvine 1978: 43, Mc Laughlin 1997: 2. See also Rambaud 1898: 11; Delafosse 1927: 30–31; Labouret 1935: 46; Gamble 1957: 134; Sauvageot 1965: 72; Stewart and Gage 1970: 392; Sapir 1971: 75; Thiam 1987: 9, 19; Fal et al. 1990: 17; Munro and Gaye 1997: ix; Becher 2001: 42; Diouf 2009: 153; Guérin 2011: 84; Tamba et al. 2012: 895; Torrence 2013: 16, Pozdniakov and Robert, forthcoming: 3–4). These are distinguished through selection of one specific form of the determiners as well as of certain pronouns (personal pronouns show person/number, but no NC agreement: e. g., **moom** ‘3SG:free’, **ñoom** ‘3PL:free’; cf. e. g., Diouf and Yaguello 1991: 22, 31). No other part of speech shows agreement by NC: verbs are not class-marked (unlike, say, in Bantu), and there is no separate class of adjectives (see the discussion in Mc Laughlin 2004), since translational equivalents of quality words such as **baax** ‘good’, **diis** ‘heavy’ or **ñuul** ‘black’ display verbal syntax and, though characterized as a subset within the larger class of verbs (sometimes labelled “stative verbs”; cf. e. g. Church 1981: 19), “[an adjective class] cannot be said to be distinct from the class of verbs” (Mc Laughlin 2004: 261).

As already hinted at in Section 3, this situation implies that, for synchronic description, the individuation of Wolof NCs has to rely on agreement (triggered by specific word forms, (4a)), not on noun morphology. In Wolof, determiners for different NCs are distinguished by a consonant that is final in the indefinite article (see Section 6) and occurs word-initially in all other determiners, as exemplified in (13). Differences in the segment(s) following the onset **C-** mark the functional distinction between different types of determiners.

(13)

- a. prox. def. article
 b. dist. def. article
 c. prox. demonstrative
 d. dist. demonstrative
 etc.

b-	g-	k-	j-	l-	m-	ñ-	s-	w-	y-
bi	gi	ki	ji	li	mi	ñi	si	wi	yi
ba	ga	ka	ja	la	ma	ña	sa	wa	ya
bii	gii	kii	jii	lii	mii	ñii	sii	wii	yii
bee	gee	kee	jee	lee	mee	ñee	see	wee	yee

In what follows, we adopt common practice in Wolof studies and label NCs by means of the form of the proximal definite article **Ci** (13a), which, like other determiners, is usually analysed as an independent word rather than an affix (as reflected in orthography through non-univerbated writing).

The list in (13a-d) is not complete: other class-marking function words are interrogative **C-an** (when used adnominally, e. g., **ban nen** ‘which egg?’ vs. **gan satala** ‘which kettle?’ vs. **fas wan?** ‘which horse?’; see Diagne 1971: 87; Fal et al. 1990: 21; Irvine 1978: 44), **C-épp** ‘all, each, every’ (e. g., **fas wépp** ‘the whole horse’ vs. **bépp xale** ‘every child’, Fal et al. 1990: 18 f.; Tamba et al. 2012: 917), and relative markers (Stewart and Gage 1970: 384, glossed REL in what follows), used either to connect quality words to nouns (e. g., **nen bu weex bi** ‘the.PROX white egg’ vs. **satala gu weex gi** ‘the.PROX white kettle’) or to link clauses (Diouf 2009: 152):

- (14) a. **fas-u** **tubaab** **w-i** **naan**
 horse-LINK.SG European CL-REL drink
 ‘The horse_i of the European_j that_i drank.’
 b. **fas-u** **tubaab** **b-i** **naan**
 horse-LINK.SG European CL-REL drink
 ‘The horse_i of the European_j who_j drank.’

In (14a), agreement of the class-marked relative is with **fas (wi)** ‘(the) horse’, whereas in (14b) it is with **tubaab (bi)** ‘(the) European’.

Among indefinites, **C-eneen** ‘other’ shows class agreement (**weneen wundu** ‘another cat’ vs. **beneen xale** ‘another child’), as do the numeral **C-enn** ‘one’ (**benn nen** ‘one egg’ vs. **genn satala** ‘one kettle’) and the indefinite article **a-C**: **ab nen** ‘a (certain) egg’ vs. **ag satala** ‘a (certain) kettle’.⁶ While all definite determiners, as well as relatives and interrogative pronouns, display a

⁶ **C-enn** ‘one’ also translates as ‘a’ and for some NCs is the only form of the indefinite article (cf. (51), (55), (56)). Note also that the gloss for **C-enn** ‘one’ should be more elaborate. Consider (ia-b):

perfect symmetry in NC marking along the lines shown in (13), the indefinite article **a-C** shows an interesting asymmetry, to be addressed in Section 6 below.

As noted at the outset of this section, most descriptions of the Wolof NC system report a complementary distribution of NCs over numbers: “singular [...] **b-, g-, j-, l-, m-, s-, w-**, and **k-** [...] plural **y-** and **ñ-**” (Stewart and Gage 1970: 392). Similar statements occur also in wider-range classificatory and/or typological work: e. g., “sg. **b-, g-, j-, w-, m-, s-, l-, k-**; pl. **y-, ñ-**” (Sapir 1971: 75; cf. also Corbett 1991: 190–191).

Several of these NCs are unproductive, with just a limited set of members. Thus, the **ki** class only hosts the two nouns in (15a), while only the eleven lexemes in (15b) are assigned to the **ñi** class:⁷

- (15) a. **këf ki** ‘thing’, **nit ki** ‘person’;
 b. **nit ñi** ‘persons’, **gaa ñi** ‘persons’, **gan ñi** ‘guests’, **géer ñi** ‘non-casted’,
góor ñi ‘men’, **gor ñi** ‘free men’, **jaam ñi** ‘slaves’, **jigéen ñi** ‘women’,
mag ñi ‘adults’, **maggat ñi** ‘old people’, **ndaw ñi** ‘youngsters’

In the plural, the **yi** class accounts for nearly all the rest of the noun lexemes (cf. Section 4.3). As to the singular, on the other hand, the **bi** class alone accounts for 64.09% of the 440 nouns in the corpus analysed by Irvine (1978: 51; i. e., 282/440). This imbalance suggests that assignment to this class is the default for the singular form of nouns in today’s Wolof, while assignment to the **yi** class is the default for plural word forms. This combines to yield the following

-
- (i) a. **b-enn jigéen ñów na**
 CL-one woman come FIN.3[SG]
 ‘One woman has come.’ [no presupposition: two or three might have come as well]
 b. **j-enn jigéen ñów na**
 CL-one woman come FIN.3[SG]
 ‘One woman has come.’ [presupposition: just one was expected to come]

In (ia) the plain numeral occurs, which is the form used for counting: e. g., **b-enn/*j-enn, ñaari, ñetti jigéen** ‘one woman, two women, three women’ etc. In such a counting context, ***j-enn** would be ungrammatical because it would imply that the ‘one’ at issue is not picked out from a larger set, i. e., it would mean ‘one and only one’. Thus, the two forms of the quantifier contrast in that only the latter (ib) shows NC agreement.

⁷ The list in (15b) rests on our Bawol informants’ competence. As Guérin (2011: 84n55) observes, “Mc Laughlin (1997: 3) réduit cette liste à **nit, jigéen, góor** et **gaa**” [‘Mc Laughlin (1997: 3) reduces this list to **nit, jigéen, góor** and **gaa**’] (the same list in Di Garbo 2014: 114). Other descriptions give a ten-noun list (Thiam 1987: 9 f.; Diouf 2009: 153; Guérin 2011: 84), none of them mentioning **jaam ñi** ‘slaves’.

agreement pattern, which is selected by the overwhelming majority of Wolof nouns (here and in the following, we test agreement using the unmarked **na**-clause type, occurring when the “entire clause is new information”, Tamba et al. 2012: 893; cf. also Torrence 2013: 30; Zribi-Hertz and Diagne 2002: 828–830):

- (16) a. **buur b-i noppi na/*na-ñu**
 SG/king CL.SG-DEF.PROX ready FIN.3SG/FIN-3PL
 ‘The king is ready.’
 b. **wuur y-i noppi na-ñu/*na**
 PL/king CL.PL-DEF.PROX ready FIN-3PL/FIN.3SG
 ‘The kings are ready.’

The distribution of different NCs over the two numbers is crucial to the establishment of agreement classes: thus, discussion of the details of this distribution will be postponed until Section 4.3. Let us add here that the default status of both the NCs **bi** and **yi**, and of the **bi/yi** AC (16a-b) is further guaranteed by a series of other proofs. By inspecting change over time in the distribution of noun lexemes over the classes, Irvine (1978: 51) was able to show that the **bi** class has been constantly expanding, since in the 19th-century corpora by Dard (1825) and Kobès (1875) the imbalance was less pronounced than it is now (38.32% of **bi** nouns in both, i. e., 195/440 nouns). Indeed, that this class has attracted nouns from other classes is an observation that has long been made in Wolof studies: “on entend **ga-war gu** et **ga-war bu** ‘le cavalier’” [‘one hears **ga-war gu** and **ga-war bu** ‘the mounted soldier’] (Delafosse 1927: 42). Examples of such vacillation are legion in the literature:

- (17) a. **jigéen ji** ‘the woman’ pl. **jigéen yi/ñi** (Mc Laughlin 1997: 3)
 b. **góor gi** ‘the man’ pl. **góor yi/ñi**
 (Tamba et al. 2012: 896, Torrence 2013: 16)

Judgements diverge here: for our Mbakke speakers, **gawar** is indeed a group-denoting noun (from **war** ‘ride.INF’) meaning ‘cavalry’, and is assigned to the **gi** class (**gawar gi**), while only **gawar bi** means ‘the mounted soldier’. In (17), on the other hand, **jigéen ñi** ‘the women’ and **góor ñi** ‘the men’ are the only acceptable choices for our informants, **jigéen/góor yi** being perceived as innovative urban Wolof. (Note that Torrence’s 2013: 7 data are drawn from St. Louis/Ndar Wolof.)

Urban Wolof, as discussed in Irvine (1978: 41–43), tends towards generalization of the default determiners for both singular (**b-**) and plural (**y-**). This was also observed by Irvine (1978) for speakers of higher social status (“noble informants”, as opposed to *griots*) in a rural setting – “a Wolof village”, not further specified, near

the city of Tivaouane (Irvine 1978: 49). Mc Laughlin (1997: 19) comments that the “appropriate-error strategy” observed by Irvine in that rural variety converged with “the spread of urban Wolof as a Senegalese lingua franca” to cause the expansion of the **bi** class. According to many, Dakar Wolof today uses **bi/yi** “for the most part” (Tamba et al. 2012: 894n5), and Banjul Wolof is reported by Becher (2001: 47 f.) to have generalized **bi/yi** to about 90 % of all nouns: for instance, **suba b-** ‘morning’ is used in Banjul (as opposed to **suba s-** in Dakar), with the original class marker retained only in the ritualized greeting-exchange **naka suba si?** (‘how’s the morning?’ = ‘how are you?’)/**suba saa ngi fi** (‘the morning is here’ = ‘fine’).

The expansion of the default NCs is also favoured by syntactic factors. Thus, Thiam (1987: 12n1) reports variation for the proximal demonstrative in post-nominal position, where (18a) coexists with (18b) “qui tend à se généraliser mais [...] jusqu’ici apparaît aux yeux de nombre de locuteurs comme une enfreinte aux normes grammaticales” [‘which tends to get generalized but [...] appears so far to several speakers as a violation of grammatical norms’]. This generalization, however, is already completed in pre-nominal position (18c), where **yii** is categorical (which corresponds to our data from Mbakke):

(18) a. N det	b. N det	c. det N	gloss
góor ñii	góor yii	yii góor	‘these men’
jigéen ñii	jigéen yii	yii jigéen	‘these women’
mag ñii	mag yii	yii mag	‘these adults’

Thiam (1987: 12) further remarks that no syntactically conditioned variability is observed with **nit** ‘person’: **nit ñii/*yii//ñii/*yii nit** ‘these persons’, showing that lexical factors also play a role.

The default status of the **bi** class is confirmed by the usual tests (and, for the corresponding plural **yi**, by further evidence from the syntax of numerals, Section 5.2). This is the class that hosts all new loanwords (Stewart and Gage 1970: 392), especially those from European languages:

- (19) **paas bi** ‘the ticket’ (pl. **paas yi**) < French **pas**
paan bi ‘the bucket’ (pl. **paan yi**) < English **pan**

This is a longstanding generalization (from Rambaud 1898: 22 to Guérin 2011: 83), describing a situation that has obtained for a while, as also older loanwords from Portuguese and Dutch tend to select **bi**: e. g., **paaka bi** ‘the knife’ < Pg. **faca**, **palanteer bi** ‘the window’ < Dt. **splinter**.⁸

⁸ Occasionally, the default NC agreement for loanwords was outranked by either semantic or phonological assignment rules (cf. (21b-c) below), as reported e. g. by Rambaud (1898: 15):

Furthermore, as commonly observed with morphological defaults, nominalizations of other parts of speech, too, are assigned to the **bi** class ((20a), Guérin 2011: 78), as are many root nouns that coincide formally with a verb lexeme ((20b), Gamble 1957: 135), though this suffers exceptions (20c):

- (20) a. **xam** → **xam-xam bi**
 ‘know.INF’ ‘the knowledge’
 bëgg → **bëgg-bëgg bi**
 ‘want.INF’ ‘the will’
 b. **daaj** / **daaj bi**
 ‘nail.INF’ ‘the nailing’
 nandal / **nandal gi**
 ‘purge.INF’ ‘the purge’
 c. **wax** / **wax ji**
 ‘talk.INF’ ‘the word/speech’

Unlike nominalizations, as remarked by Mc Laughlin (1997: 20), derived nouns are less likely to be assigned to the default class. This observation is part of her description of morphological criteria for NC assignment (21a). In addition, phonological (21b) and semantic criteria (21c) have been discussed in the literature (cf. e. g., Rambaud 1898: 12; Senghor 1943: 94–96; Gamble 1957: 136; Thiam 1987; Guérin 2011: 75–80):

-
- (i) a. **kanu gi/karoot ji** ‘the cannon/carrot’
 b. **soraas gi/lemonj gi** ‘the orange/lemon tree’
 soraas ji/lemonj ji ‘_{DEF} orange/lemon’ (mass)

In (ia), **kanu** and **karoot** are assigned to the **gi** class because of their initial **k-**, while in (ib) **soraas** and **lemonj** are, on semantic grounds, either in the **gi** class, when denoting the tree, or in the **ji** class, when denoting the fruit (conceived of as mass), according to Rambaud’s description: “les mots **lémônj** et **soraas** [...] prennent la particule **gi** ou **d’i**, suivant qu’ils désignent l’arbre ou le fruit” [‘the words **lémônj** and **soraas** [...] take the particle **gi** or **d’i**, depending on whether they refer to the tree or the fruit’]. (Note that in our Mbakke data, **soraas si/*ji** is the mass-denoting form for ‘orange’, contrasting with the count noun **soraas gi** denoting the ‘orange tree’; also, Fal et al. 1990: 204 report **sorās si**, while for ‘lemon’ they give – p.123 – only **limonj bi**.) In addition, borrowings from Arabic mostly select **ji** (e. g., **jumaa ji** ‘the mosque’), though by no means always (cf. Pozdniakov 1993: 78): e. g., **asamaan si** ‘sky’, **kaamil bi** ‘(complete) Qur’an’ (**kaamil gi** in Fal et al. 1990: 107) etc. According to Mc Laughlin (1997: 22), this may reflect Fula intermediation (historically depending on Muslim proselytism by the Fulani; Guérin 2011: 82). In Fula, **-ji** is the default-class plural marker, and this default class hosts Arabic loanwords (e. g., **attaaya** ‘tea’, pl. **attaayaa-ji**) whose plural marker has been reanalysed – Mc Laughlin plausibly argues – as a singular class marker in Wolof: **attaaya ji** ‘tea (sg.)’ (Fal et al. 1990: 37).

- (21) Criteria for NC assignment (Mc Laughlin 1997: 8–21):
- a. morphological: e.g., $[X]_V \rightarrow [[X]_V -in]_N = \mathbf{wi}$ class;
 consonant mutation = **gi** class
dox ‘walk.INF’ → **doxin wi** ‘the manner of walking’;
dof ‘be mad.INF’ → **ndof gi** ‘the madness’
- b. phonological: the NC marker depends on the stem-initial consonant⁹
- | | | | |
|------|--------------------|--------------------------|---|
| /g/- | = gi class: | ginaar/gaynde/ | ‘the chicken/lion/nosebag (of a horse)’ |
| | | gafaka | |
| /j/- | = ji class: | jigéen/jinax/jiit | ‘the woman/mouse/scorpion’ |
| /w/- | = wi class: | warga/wanog/ | ‘the tea/toilet/hour’ |
| | | waxtu | |
| /s/- | = si class: | saa/saxar/suukar | ‘the moment/smoke/sugar’ |
| /m/- | = mi class: | màkaan/maaka/ | ‘the place/straw hut/cat’ ¹⁰ |
| | | muus | |
- c. semantic:
- | | | |
|----------------------------|-------------------------|---------------------------|
| tree → gi class: | new/guyaab/màngo | ‘the Kayor apple/guava/ |
| | gi | mango tree’ |
| fruit (countable) | new/guyaab/ | ‘the Kayor apple/guava/ |
| → bi class: | màngobi | mango’ |
| fruit (mass) | new/guyaab/màngo | ‘Kayor apple/guava/ |
| → ji class: | ji | mango’ |
| family members | doom/yaay/jabar | ‘the child/mother/wife’ |
| → ji class: | ji | |
| liquids → mi class: | ndox/meew/saw mi | ‘water/milk/urine DEF’ |
| humans → ñi class: | see (15b) | |
| diminutive | njèkkër/njanq/ | ‘the little husband/girl/ |
| → si class: | cafara si | fire’ ¹¹ |

⁹ Phonological assignment is defined more broadly in Becher (2001: 43) – e.g. assign to the **bi** class nouns whose initial consonant is **b-** or **p-** – than in Mc Laughlin (1997: 13–18), for whom it implies the copy of the initial consonant.

¹⁰ Note in passing that, though Wolof is often depicted as a language with very limited dialect variation, NC assignment does vary, in this respect as in others. Thus, for instance, in Fal et al.’s (1990) dictionary **max mi** ‘the termite’ is reported, falling within the scope of the phonological assignment rule mentioned in (21c), whereas that word in Mbakke Wolof selects **gi**. Similarly, our Mbakke informants use **mala wi** ‘the animal’ and **miskin wi** ‘the poor’, vs. **mala/miskin mi** reported in Fal et al. (1990: 127, 133) and Mc Laughlin (1997: 14).

¹¹ Diminutives may be formed through initial consonant mutation, as in (7a), or without it: e.g., **xale bi** ‘the child’ → **xale si** ‘the little child’. In addition to affection, the diminutive can also convey derogatory connotations (cf. (47a), (48) below). Alternatively, with mass nouns such as **ndox mi** ‘DEF.PROX water’, the diminutive has a quantifying/packaging function: **ndox si** ‘the.PROX tiny bit of water’ (cf. Thiam 1987: 23–25).

This selection of data is enough to show that none of these criteria is an absolute predictor: “for many nouns the assignment to a given class seems highly arbitrary.” (Stewart and Gage 1970: 394). In her dictionary counts carried out on Fal et al. (1990), Mc Laughlin (1997: 15) found that /g/- and /w/-initial nouns in particular tended to be assigned phonologically (53.5% and 52%, as opposed to 39% and 19%, respectively, in the default class, plus residue), while other phonological rules account for much smaller percentages of the nouns assigned to the remaining NCs. Both this partial correspondence and the fact that it is far from general are explained under the hypothesis, mentioned in Section 4.1, that Wolof once possessed a system of NC-prefixes (cf. also Section 7.1). As for the semantics, it has already been shown in (1) that names of animals can be in any class (except **ki/yi** and **ki/ñi**, which include just one member each), as can nouns denoting human beings (cf. (29)) or mass nouns (37), and this is true of most referential domains, though some cases of exceptionless semantics-to-NC mapping are observed: thus, for instance, all tree- and place-names recorded in Fal et al. (1990) are in the **gi** class, and there is no diminutive noun that is not assigned to the **si** class.

4.3 Agreement classes

In Wolof, a nominal lexeme’s paradigm consists of a singular and a plural form, which occur in distinct syntactic contexts, as shown in (16a-b), and are thus morphosyntactically distinct, even though, as seen in Section 4.1, they differ phonologically (and morphologically) in just a tiny and dwindling minority of cases. As a consequence, one can compute an agreement pattern for every noun lexeme and group lexemes into ACs. These ACs fall under the definition of grammatical gender: “Genders are classes of nouns reflected in the behavior of associated words.” (Hockett 1958: 231, cit. in Corbett 1991: 1).

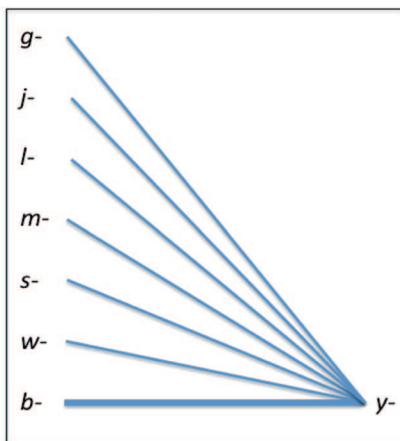
The account of Wolof ACs presented in this section follows Corbett’s (1991: 43–49) analysis of Bantu noun classes:¹² each pair of NCs defines one gender (cf. also Schadeberg 1989: 76; Dobrin 1998: 60; Dimitriadis 1997; etc.). Since, as already shown in Section 4.2, in Wolof both the singular and the plural NC assignment have a default value (**bi** and **yi** respectively),

¹² Note that “agreement class” is used in a different sense in Güldemann (2000: 13) to denote what Nichols (1992: 125) calls “concord subclass” (or “NC” in the sense of, e. g., Creissels 1999: (4a)): i. e. the agreement pattern triggered by one specific word form, rather than by the entire lexeme in the different morphosyntactic environments in which its word forms occur.

most of the nouns of the language belong to the same AC, as already exemplified with **buur** ‘king’ in (16) above. While this accounts for most of the lexicon, however, there are several smaller classes that present different pairings.

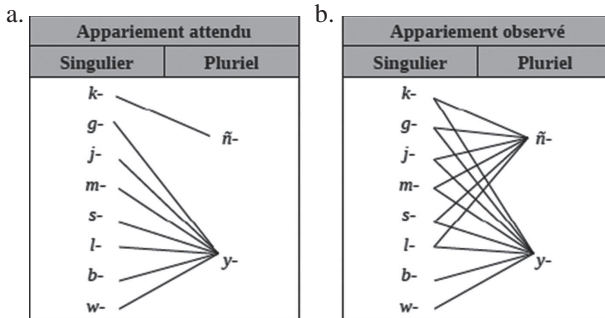
In surveying the literature on Wolof NCs, one is struck by the fact that many studies just describe them per se, while they discuss their pairings for each individual lexeme either sporadically (e. g., Thiam 1987: 5, 26) or even not at all (Camara 2006), so that ACs (or genders) as such fall outside of their scope. For instance, Diouf (2009: 152–155) first introduces NCs, specifying the class marker only for one number value, and then, when proceeding to consider nouns with distinct singular vs. plural forms (as seen in (6) above), he does not give the NC markers for those nouns. This is possibly because the overwhelming majority of Wolof nouns, with fewer than two dozen exceptions, have a **yi** plural, so that it may appear uneconomical to waste time specifying this for noun after noun. Once these exceptions are stripped away, the gender system would be a fully convergent one (Corbett 1991: 155–156), with the default AC **bi/yi**, whose special status is symbolized by the thicker line in (22), on its way to expansion (cf. Section 4.2):

- (22) Pairings of NCs (= only non-exceptional ACs)
 singular plural



However, this reasoning is not made explicit in most previous work on this subject: usually, pairings of NCs are simply not considered. Guérin (2011: 84–85) stands out in this respect, as he gives a thorough account of ACs (including exceptional ones), which can be synthesized by means of the contrast between his two schemes reproduced in (23a-b):

(23) Guérin (2011: 84): singular/plural pairings of NCs (= ACs)



More recently, the same display of the NC pairings as in (23a) – without (23b) – occurs in Pozdniakov and Robert (2015: 4) (who do not quote Guérin). Note that (23a) is indeed presupposed by many studies of Wolof NCs: “Le wolof possède une classe à nasale palatale, comme pluriel de la classe **k-**: **nit ñ-** ‘les hommes’” [‘Wolof possesses a class with palatal nasal, as a plural of the **k-** class: **nit ñ-** ‘the men’] (Doneux 1975: 95). This is true, as long as one does not imply that the **ki/ñi** pairing is exclusive.

Having observed that **yi** is the default for plural, while **ñi** only hosts a closed list of lexemes (see (15b) above), Guérin (2011: 84) goes on to remark that one does not simply observe the pairings in (23a), that would arise if **nit ki** ‘person’ (15a) were the only noun to take **ñi** in the plural: “bien que tous les noms appartenant aux classes **b-** ou **w-** au singulier soient dans la classe **y-** au pluriel, la situation est plus complexe pour les autres classes” [‘though all nouns belonging to the classes **b-** or **w-** in the singular are in the **y-** class in the plural, the situation is more complex for other classes’]. This greater complexity arises partly from the occurrence of pairings such as the following (registered by Guérin and replicated here with data checked for the Mbakke variety):

(24) a. **yi**-plurals:

singular	plural	gloss
këf ki	yëf yi	‘the thing/-s’
dex gi	dex yi	‘the river/-s’
jabar ji	jabar yi	‘the wife/wives’
muus mi	muus yi	‘the cat/-s’
soxna si	soxna yi	‘the honourable lady/ladies’
ndab li	dab yi	‘the utensil/-s’
baat bi	baat yi	‘the voice/-s’
waar wi	waar yi	‘the path/-s’

b. **ñi**-plurals:

singular	plural	gloss
nit ki	nit ñi	‘the person/-s’
góor gi	góor ñi	‘the man/men’
jigéen ji	jigéen ñi	‘the woman/women’
mag mi	mag ñi	‘the adult/-s’
gor si	gor ñi	‘the free person/-s’
ndaw li	ndaw ñi	‘the youngster/-s’

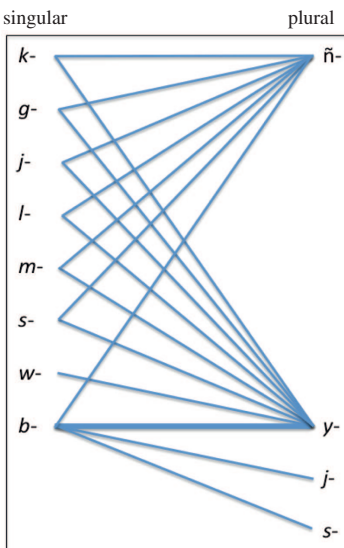
Actually, not even (23b) (and (24a-b)) give the full picture of the Wolof gender system. The crucial difference consists in that, in our data, the distribution of the determiners over the two numbers is more complicated than usually stated in the literature. Rather than the “classical” 8 + 2 complementary distribution, whereby “Classes are uniquely either singular or plural” (Mc Laughlin 1997: 3), what we actually observe is the following:

(25) distribution of Wolof NC markers over number values

6 NC markers occur only in the sg.:	bi (default), ki , gi , li , mi , wi
2 NC markers occur only in the pl.:	yi (default), ñi
2 NC markers occur in both sg. and pl.:	ji , si

Crucially, **ji** and **si** occur in either number so that they are available for plural agreement too (as exemplified in (31b) and (32b) below), adding up to a total of 17 ACs:

(26) Pairings of NCs (= ACs)



Recall that this overall architecture is obtained by including also exceptional ACs: this results in a “crossed system” (Corbett 1991: 157, 199), as opposed to the convergent one in (22) above. Note that neither the crossing nor the occurrence of homophonous class markers in both numbers (with distinct noun lexemes, as is the case for **ji** and **si** in Wolof) is unparalleled within Niger-Congo. For instance, both are observed in the Heiban language group (Kordofanian) NC system as reconstructed by Schadeberg (1989: 76), where ***li-** marks either class 2 (plural to ***gu-** within gender 1/2) or class 5 (singular, paired with either the plural ***ju-**, class 6, or the “collective” ***jn-**, class 6a). Within Atlantic, crossed systems are not rare: cf. Sauvageot (1967: 227) on Baïnouk Gunyaamolo, Ferry and Pozdniakov (2001: 165) on (Proto-)Tenda.

The 17 ACs are exemplified in (27). For major classes, the notes give (some) phonological, morphological and/or semantic assignment rules, identical to those for individual (singular) NCs in (21). For minor classes that include 1 to 3 lexemes, on the other hand, the lexemes involved are listed and, if they are not discussed elsewhere in the paper, some references are added in brackets, so as to show that the behaviour we describe is not an idiosyncrasy of our Mbakke informants, but is representative of traditional Wolof as a whole:

(27)	singular	plural	gloss	notes
1	nit ki	nit ñi	‘person’	only nit
2	góor gi	góor ñi	‘man’	also gan ‘guest’ (gan b- in Fal et al. 1990: 80 vs. gan g- in Guérin 2011: 84), géer ‘non-casted’, magget ‘old person’
3	jigéen ji	jigéen ñi	‘woman’	also waa/gaa ‘guy’ (waa j- in Guérin 2011: 84)
4	ndaw li	ndaw ñi	‘youngster’	only ndaw ¹³
5	mag mi	mag ñi	‘adult’	only mag (Thiam 1987: 5; Fal et al. 1990: 127)
6	gor si	gor ñi	‘free person’	only gor (Guérin 2011: 84)
7	jaam bi	jaam ñi	‘slave’	only jaam (Fal et al. 1990: 149: jaam bi)
8	këf ki	yëf yi	‘thing’	only këf
9	tëng gi	tëng yi	‘female sheep’	k- , c- , g- , x- ; tree names; [[X] _V –eel] _N

¹³ Fal et al. (1990: 149) and Diouf (2009: 152) report **ndaw li** ‘messenger’ vs. Guérin (2011: 84) ‘youngster’.

10	jabar ji	jabar yi	‘wife’	c-, j-; fruit names (mass), family
11	ndëpp li	ndëpp yi	‘dance of possession’	nd-, ng-, c-
12	kuuy mi	kuuy yi	‘ram’	m-, mb-; names of liquids
13	soxna si	soxna yi	‘lady’	s-; diminutives
14	sas wi	sas yi	‘task’	f-, w-; [[X] _V -in] _N
15	doom bi	doom yi	‘fruit’	most b- and p- initial nouns; default
16	janq bi	janq ji	‘girl’	also jeeg ‘lady’
17	sëriñ bi	sëriñ si	‘healer’	also sàmm ‘shepherd’, Séeréer ‘Serer’

In addition to the seventeen pairings seen in (27), there are defective nouns that occur with only one number value. While **si** diminutives are listed in (27), since their singular behaves like that of just one NC (the **si/yi** one, as shown below in sections 5–6), (27) omits *pluralia tantum* like **iskale/teggin/jooy yi** ‘DEF.PROX.PL staircase/respect/crying’, which have no singular (***iskale/teggin/jooy C-i**, where **C-** = any class-marker except **y-**) and whose classification is undetermined with respect to the AC system, given the many **yi**-plural ACs:

- (28) a. **iskale y-i** **salte na-ñu/*na**
 staircase CL.PL-DEF.PROX dirty FIN-3PL/FIN.3SG
 ‘The staircase is dirty.’
- b. **jooy y-a** **metti na-ñu/*na lool**
 crying CL.PL-DEF.DIST hurt FIN-3PL/FIN.3SG much
 ‘The crying hurts a lot.’

Note that the occurrence of *pluralia tantum* only in the **yi**-class is further evidence of its default status, as discussed in Section 4.2, as is the fact that it is the only plural NC to combine with all singular NCs, which results in semantic unmarkedness, as opposed to the other three minor NCs occurring in the plural, which all include only a few nouns denoting humans. Symmetrically, the default status of the **bi**-class, also discussed in Section 4.2, is confirmed by the fact that it is the only singular NC to co-occur with all four plural NCs, while the remaining ones combine at most with two of them.

On the whole, the AC system of traditional Wolof as seen in (26)-(27) – just like NC assignment, on which it capitalizes – is not semantically based, since the semantic generalizations mentioned in the notes usually account for just a certain proportion of the relevant lexemes, varying from case to case. In particular, there is no encoding of semantic categories such as sex (natural gender) or animacy,

while humanness correlates with ACs 1–7 (**ñi** plurals). The correlation is not biunique though, as most nouns denoting human beings are in other ACs:

(29) a.	tab	b-i	b.	jëkkër	j-i
	generous person	CL-DEF.PROX		husband	CL-DEF.PROX
	‘the generous person’			‘the husband’	
c.	ndongo	l-i	d.	njëntéef	m-i
	disciple	CL-DEF.PROX		sorcerer	CL-DEF.PROX
	‘the disciple’			‘the sorcerer’	
e.	soxna	s-i	f.	far	w-i
	honourable lady	CL-DEF.PROX		lover/fiancé	CL-DEF.PROX
	‘the honourable lady’			‘the lover/fiancé’	
g.	tab/jëkkër/ndongo/njëntéef/soxna/far				y-i
	generous persons/husbands/disciples/sorcerers/ladies/lovers				CL-DEF.PROX
	‘the generous persons/husbands/disciples/sorcerers/ladies/lovers’				

Recall that the lexemes with **ñi** plurals are 11 in all, as seen in (15b). Given this situation, it is clear that the [\pm human] contrast encoded in some pronouns, to be seen in (62)-(63) below, is independent of the Wolof nominal gender – i. e. AC– system.

As noted above (cf. (21)), phonological rules, too, account for just a portion of NC (and AC) assignment, and in (27) we have indeed chosen examples that do not fit the phonological rules (or the semantic ones). In some cases, the phonology and semantics combine nearly without residue, as happens with the **si** NC and the ACs involving it: here, the union of the two assignment rules seems to account for class membership almost exhaustively, as nouns in this class either begin with **s-** (e. g., **suuf si** ‘the sand’) or are diminutive (e. g., **ngóor si** ‘the little man’), with possibly just one exception, viz. **nëgëni s-** ‘the same time’ (Fal et al. 1990: 146): e. g., **démb ci nëgëni sii** ‘yesterday at the same time’. Other cases reported in Fal et al. (1990) are not confirmed by our informants: e. g., **déwën s-** ‘next year’ (p. 60, 281) is actually **déwën ji** in their competence, which also has **waay ji** ‘DEF.PROX certain person’ rather than **waay s-** reported in Fal et al. (1990: 241). Note that while the semantic condition tied to the **si** class is biunique (i. e., there are no diminutives in other classes), the phonological one is not, as many **s-**initial nouns are in other classes (e. g., **safara wi** ‘the fire’, **soj mi** ‘the cold’, **sinemaa bi** ‘the cinema’).

The two horizontal lines in (26) have a special status, in different senses: the **bi/yi** AC is the default, quantitatively prevailing one (as symbolized by the thicker line), whereas **ki/ñi**, though represented by a single lexeme (**nit**),

corresponds to the pronominal markers for [+ human] (cf. (62)-(63) below). Other classes feature just one member, especially some of those with **ñi** plural. In between, the different agreement classes have different sizes, ranging from 2–3 items (the **gi/ñi**, **ji/ñi**, **bi/ji** and **bi/si** classes) to several dozens. While exact quantification of the size of each AC exceeds by far the scope of this research, for our present purposes it suffices to observe that previous accounts that mention pairings of NCs, from Boilat (1858: 23) to Guérin (2011: 84) to Pozdniakov and Robert (2015: 3–4), enumerate the **ki/ñi** one among them, although it features just the single lexeme **nit**.¹⁴ By the same token, there is no reason to disregard **bi/ji**, **bi/si** and **bi/ñi**: from (27), it is clear that several of the ACs that can be formally distinguished are at best “inquate” genders, i. e., “genders [...] postulated on the basis of an insufficient number of nouns” (Corbett 1991: 170). And indeed, it is often the case that, in systems with a large number of feature values for the category gender, “the membership of the agreement classes is unequal” (Corbett 1991: 171), and several of them are inquate. This answers – both in terms of the Wolof facts and their cross-linguistic perspectivization – the query from one anonymous reviewer, who “wondered [...] if non-Wolof specialists would find this paper as fascinating as I do, especially when it concerns only a handful of nouns”. As we have shown, this is a general problem for any analysis of Wolof, since the evidence for several unanimously accepted noun classes comes from small lexeme sets.

5 “Collective”, mass nouns and agreement classes

The fact that there are **si** and **ji** plurals did not escape the attention of previous researchers. However, the data were either just quoted in passing, without discussing them in the context of the AC system (as does, e. g., Camara 2006: 10–11), or they were interpreted otherwise. In particular, both Sauvageot

¹⁴ One notable exception is Rambaud (1898: 12), who reports plural **ñ-** for **këf** ‘thing’ as well as for **nit** ‘person’, whereas in our corpus only **nit** belongs to AC 1, and **këf** to AC 8 (pl. **yi**) instead: “La consonne **k** n’est usitée qu’avec deux substantifs, **nit** ‘homme’ et **këf** ‘chose’. Ces mêmes substantifs, au pluriel, prennent l’article par **ñ.**” [**k** only occurs with two nouns [...] The same nouns, in the plural, take **ñ**]. On the other hand, Boilat (1858: 23) – who was himself a native speaker of Wolof (he was born in 1814 in Ndar/Saint-Louis, Sénégal) – also reports generalized **y-** in the plural, except for **nit**: “Cet article est toujours **y**, excepté le substantif **nit**, personne, qui veut **ɓ**” [‘This article [= the plural form] is always **y**, except for the noun **nit**, person, which requires **ɓ**’]: the list in (27) shows that this is an oversimplification.

(1965: 73–74) and Thiam (1987: 26–29) argue at length that, say, **sëriñ si** ‘the healers’ and **janq ji** ‘the girls’, are not instances of plural but rather “collectives”, a definition that circulates widely in Wolof studies and is often mentioned cursorily as a matter of course, e. g., in Doneux (1978: 44), Fal et al. (1990: 17–18) (see below) and Tamba et al. (2012: 894), who list among NCs “8 singular, 2 plural, [...] and 1 collective human class”, but neither exemplify nor elaborate on the last one (which could not, anyway, be “one class”, since, as seen in the examples just given, there are *two* class markers involved).

Other treatments are more ambiguous. Thus, Camara (2006), in enumerating NCs, says “The plural articles are **yí ñi**” (p. 8), and on the other hand, on p. 10, rightly observes, “The article **ji** also marks the plural of the following nouns: **janq ji** ‘the young girls’, **jeeg ji** ‘the ladies’” (the two nouns are listed among plurals, without any comments, also in Diagne 1971: 78). Finally, describing the **si** class, Camara (2006: 11) states that **si** “also pluralizes some nouns and offers a collective meaning (i. e., the group of)”, without further dwelling on the issue but providing the following examples: **sëriñ si** ‘the marabouts’, **sàmm si** ‘the shepherds’, **soodaan si** ‘Blacks’, **soble si** ‘the onions’. Of these examples, **sëriñ** and **sàmm** are genuine, as we shall see directly in (31), whereas the other two must be discarded: for ‘black people’, one normally uses **nit ñu ñuul**, whereas **soodaan** (< Arabic **suudaan** ‘black.PL’) is a poetic word that, for our informants, does not take **si**. **Soble si**, on the other hand, is not a plural, as shown by the agreement test:

- (30) a. **soble s-i** **baax na** **/*na-ñu**
 onion CL-DEF.PROX good FIN.3SG /FIN-3PL
 ‘The onion is good.’
- b. **soble y-i** **baax na-ñu** **/*na**
 onion CL-DEF.PROX good FIN-3PL /FIN.3SG
 ‘Onions are good.’

As Corbett (2000: 117) points out in his overview of the terminology used to describe number cross-linguistically, “‘collective’ is used in the literature in a variety of ways [...]; these uses are so different that the term has become almost useless”. Indeed, in our present case, the appeal to “collective” has hindered full appreciation of the complexity of the NC and AC systems, as we shall now demonstrate. We are unaware of any critical discussions of this use of “collective”, either in Wolof studies or, with respect to the Wolof facts, in cross-linguistic studies of number in which the consistency of this terminology is tested, such as Corbett (2000), Gil (1996: 66–70) or Koptjevskaja-Tamm (2004).

5.1 The plural syntax of “collectives”

The syntactic behaviour of the relevant nouns is exemplified in (31)-(32):

- (31) a. **sàmm b-i noppi na/*na-ñu**
 shepherd CL.SG-DEF.PROX ready FIN.3SG/FIN-3PL
 ‘The shepherd is ready.’
- Séeréer b-i jekk na/*na-ñu**
 Serer CL.SG-DEF.PROX handsome FIN.3SG/FIN-3PL
 ‘The Serer is handsome.’
- sëriñ b-i ñów na/*na-ñu**
 healer CL.SG-DEF.PROX arrive FIN.3SG/FIN-3PL
 ‘The healer has arrived.’
- b. **sàmm s-i noppi na-ñu/*na**
 shepherd CL.PL-DEF.PROX ready FIN-3PL/FIN.3SG
 ‘The shepherds are ready.’
- Séeréer s-i jekk na-ñu/*na**
 Serer CL.PL-DEF.PROX handsome FIN-3PL/FIN.3SG
 ‘The Serers are handsome.’
- sëriñ s-i ñów na-ñu/*na**
 healer CL.PL-DEF.PROX arrive FIN-3PL/FIN.3SG
 ‘The healers have arrived.’
- (32) a. **jeeg/janq b-i sonn na/*na-ñu**
 lady/little girl CL.SG-DEF.PROX tired FIN.3SG/FIN-3PL
 ‘The lady/little girl is tired.’
- b. **jeeg/janq j-i sonn na-ñu/*na**
 lady/little girl CL.PL-DEF.PROX tired FIN-3PL/FIN.3SG
 ‘The ladies/little girls are tired.’

Sauvageot (1965: 73) regards plural agreement, seen in (31b) and (32b), as one of the identifying properties of “collective” (treated as a distinct value of the number feature):¹⁵

¹⁵ For other authors, this “collective” is derivational, not inflectional: cf. e. g. Dramé’s (2011-12: 142) inclusion of **jeeg/janq ji** in the section on “zero derivation”.

A l'opposition de nombre singulier/pluriel, s'ajoute celle du collectif. Ce dernier a pour particularités a) de ne pas posséder d'expression propre le distinguant du singulier; b) de ne pas avoir de correspondant pluriel. Le collectif est identifié 1. par l'opposition ternaire modalité "singulier"/modalité "pluriel"/ modalité "collectif" [...] 2. par l'accord en nombre (nombre pluriel). [To the singular/plural number contrast, one has to add that of collective. The peculiarities of the latter are: a) it does not possess a dedicated expression distinguishing it from the singular, b) it has no corresponding plural. Collective is identified 1. Through the ternary contrast "singular"/"plural"/collective" [...] 2. Through number agreement (plural number)']

However, agreement indicates that those in (31b) and (32b) are plurals; it cannot be a valid argument to posit a distinct value of the number category. Thus, the argument for discarding a feature value "collective" for Wolof nouns like **jeeg**, **sëriñ** etc. is reminiscent of the one used by Corbett (2012: 100) to reject the proposal that "English would have COLLECTIVE alongside SINGULAR and PLURAL, and nouns like *committee* would have the feature value COLLECTIVE". One of the arguments against this proposal is that only "COLLECTIVE gives variable agreements, while other values are rigid". In our Wolof case, the evidence is even stronger, since agreement is *categorically* plural. This is uncontroversial, even for sources reporting nominal triplets (singular/plural/collective), like Torrence (2013: 16), who lists **góor gi** 'the man'/**góor ñi/yi** 'the men'/**góor ji** 'the (group of) men' (collective) – specifying (fn. 12) that "the collective class takes plural subject marking on verbs". However, this ***góor ji** is ungrammatical for our Mbakke informants (see discussion on (33) and fn. 16 for the refutation of another alleged triplet).

A further formal argument adduced to justify the assumption of "collectives" in Wolof is that "Le collectif [...] ne peut être confondu au pluriel, sa marque formelle étant l'indice d'une classe du singulier." ['collective [...] cannot be confused with plural, as its formal marker is the index of a singular class'] (Thiam 1987: 28). This *petitio principii* rests on the traditional assumption that NCs are in complementary distribution over number values, but is proven false by plural agreement in (31b) and (32b). One anonymous reviewer objects here that "agreement cannot be the only evidence to argue for two additional plural noun classes". Consider firstly that we do provide further independent evidence, from the morphology of the indefinite article (Section 6), for the distinction between the singular vs. plural **ji** and the singular vs. plural **si** NCs. Secondly, the reviewer does not explain what could constitute valid evidence to ascertain the value of nominal number in Wolof. Given its near-complete noun uninflectedness and the non-occurrence of (attributive) adjectives, verb agreement is the only evidence, independent from class markers on determiners, to establish nominal number for any class.

As for the semantics, the recurrent claim is that **jeeg/janq ji** and **sëriñ/sàmm si** mean ‘a group of X’, “un ensemble d’éléments homogènes considéré comme un tout” (Thiam 1987: 25), rather than simply ‘the Xs’. This claim is repeated, most recently, in Pozdniakov and Robert (2015: 36): “pour les ethnies, on opposera **Séeréer si** ‘les sérères (en tant qu’ethnie)’ et **Séeréer yi** ‘les sérères désignant des personnes particulières’, par exemple ces que j’ai vus récemment.” [‘for ethnic groups, one contrasts **Séeréer si** ‘the Serers (as an ethnic group) and **Séeréer yi** ‘the Serers referring to particular persons’, for instance, those I’ve seen recently’]. This does not correspond to our informants’ intuitions: for them, **Séeréer si** is the only plural, while **Séeréer yi** is an urban innovation (cf. Irvine 1978: 41–43).¹⁶ What is more, **Séeréer si** can be used in contexts where reference to the whole ethnic group is out of the question:

- (33) a. **Séeréer s-i** **ñow na-ñu/*na démb**
 Serer CL.PL-DEF.PROX come FIN-3PL/FIN.3SG yesterday
 ‘The Serers came yesterday.’
- b. **xool! Séeréer/ sàmm s-i** **lekk na-ñu gato b-i**
 look Serer/ shepherd CL.PL-DEF.PROX eat FIN-3PL cake CL.SG-DEF.PROX
 ‘Look! The Serers/The shepherds have eaten the cake!’

For our informants, those in (31b), (32b) and (33) are plurals just like any other: when variation is to be found, as in **janq ji/yi** ‘the girls’, the two variants (the latter innovative) are synonymous, whereas where no variation is observed, as in **jeeg ji/*yi** ‘the ladies’, then **ji** is just the only plural class-marking available, and the same goes for **si** in **Séeréer si** or **sàmm si** in (33). Indeed, Thiam (1987: 28) notes that

¹⁶ When confronted with this objection, K. Pozdniakov kindly answered (p.c. to ML, February 2015), admitting that the variation between **Séeréer si** and **Séeréer yi** may be conditioned sociolinguistically, rather than in morphosyntactic and semantic terms: “Je suis d’accord avec vous: la forme **Séeréer yi** peut être produit du wolof urbain” [I agree with you: the form **Séeréer yi** may be a product of urban Wolof]. The third anonymous reviewer made a similar observation: “L’accord avec le verbe varie [...] en fonction des locuteurs.” [‘Verb agreement varies across speakers.’]. From this s/he concludes “qu’il s’agit de variation linguistique, et l’argument de l’accord au pluriel du verbe n’est pas un argument suffisant pour assurer que les formes du collectif sont des formes du pluriel.” [‘that variation is involved, and the argument from plural verb agreement is not a sufficient argument to guarantee that collective forms are plural forms.’]. This is not a valid objection since, like reviewer 2, this reviewer is unable to point to any alternative diagnostics, independent from subject verb agreement, to establish number values in Wolof.

On ne peut, par exemple, dire ***garab j** d'un ensemble d'arbres; également, on n'emploie pas ***nit j** pour la désignation d'un groupe de personnes, ni ***ligéeykat j** pour désigner un groupe de travailleurs ou les travailleurs dans leur ensemble. ['one cannot, for instance, say ***garab j** for a set of trees; likewise, one does not use ***nit j** for designating a group of persons, nor ***ligéeykat j** for designating a group of workers or the workers taken as a set']

Rather, one says only **garab/ligéeykat yi** and **nit ñi**. To an unbiased mind, this is evidence that both these and **jeeg/janq ji** and **sëriñ/sàmm si** are alternative plurals, selected in a lexically idiosyncratic way for different nominal lexemes.

5.2 Plural vs. “collective” and the syntax of numerals

One anonymous reviewer, the same who objected to the legitimacy of the agreement diagnostics, insisted that **Séeréer si** is a collective, not a plural, and pointed to a crucial test: “What happens when they combine with numerals like ‘two’?”. As a matter of fact, for our Mbakke informants, neither **ñaari** ‘two’ nor any other numeral can co-occur with plural **si** or **ji**:

- (34) a. **ñaari Séeréer / sàmm y-i/*s-i ñow na-ñu/*na démb**
 two Serer / shepherd CL.PL-DEF.PROX come FIN-3PL/FIN.3SG yesterday
 ‘The two Serers/shepherds came yesterday.’
 b. **ñaari jeeg / janq y-i/*j-i y-àngi lekk**
 two lady / girl CL.PL-DEF.PROX CL.PL-PROG eat
 ‘The two ladies/girls are eating.’

At first glance, this may seem to contradict what was said in Section 5.1 about **Séeréer/sàmm si** and **jeeg/janq ji** being just plurals. Incompatibility with numerals, as suggested by the reviewer, would appear to point to non-plurality.

However, the data in (35) prove that this would be the wrong guess:

- (35) a. **ñaari gan / géer / gor / góor y-i**
 two guest / non-casted / free man / man CL.PL-DEF.PROX
 ‘The two guests/non-casted persons/free men/men.’
 b. ***ñaari gan / géer / gor / góor ñ-i**
 two guest / non-casted / free man / man CL.PL-DEF.PROX

As shown in (15b), the nouns in (35) select **ñi** in the plural, and indeed (35b) without **ñaari** would be perfectly grammatical, while (35a) without **ñaari** would not. Thus, (35a) shows that when **ñi** nouns are preceded by a numeral, the plural class marker **ñi** is replaced by the default plural **yi**. By the same token, the data

in (34) are not evidence countering the plural status of the **ji** and **si** plural NCs. Rather, (34) and (35) are instances of the operation of one and the same syntactic rule, which selects the default plural class marker **yi** as soon as nouns whose plurals belong to any other NC come to be preceded by a numeral. In other words, this is one more piece of evidence of the independently established (cf. sections 4.2-4.3) default status of plural **yi**, and one more syntactic context favouring the generalization of default **yi**, to be added to the one discussed in (18c) above.

5.3 “Collective” and mass

A crucial semantic argument is put forward to prove the “collective” nature of (31b)/(32b):

L’opposition “singulatif – collectif” trouve une brillante illustration dans les données du lexique se rapportant au monde végétal: les noms d’arbres, de fruits. Ici on remarque qu’une rangée lexico-sémantique considérable de substantifs désignant des arbres se rapporte à la classe G au singulier (Y au pluriel): **daqaar G** ‘tamarinier’ [...]. Pour la désignation d’un ensemble de fruits du même arbre on emploie la forme correspondante dans la classe J: [...] **daqaar J** ‘tamarin’. Il est remarquable que les fruits du tamarinier se désignent seulement comme un tout collectif par la classe J. L’emploi de cette forme par la classe B est impossible. [“The “singulative vs. collective” contrast finds a brilliant illustration in the data of the lexicon relating to the vegetal world: tree and fruit names. Here one observes that a considerable lexico-semantic series of nouns designating trees is tied to class G in the singular (Y in the plural): **daqaar G** ‘tamarind tree’ [...]. For the designation of a set of fruits of the same tree one uses the corresponding class J form: [...] **daqaar J** ‘tamarind’. Remarkably, the tamarind fruits are referred to only as a collection through class J. Using this lexeme in the B class is impossible.”] (Thiam 1987: 26–27).

The juxtaposition of nouns like **jeeg ji** ‘the women’ and fruit names was authoritatively proposed by Sauvageot (1965: 73–74), who puts **jombos j-** ‘squash’ (Cucurbita pepo L., mass) – coexisting with **jombos b-/y-** (singular/plural count) – in a row with **jeeg ji** and **janq ji** under “collective”. This became commonplace: cf. e. g. Fal et al. (1990: 17–18), Pozdniakov and Robert (2015: 42).

Indeed, for many fruit and vegetable names, Wolof offers the option of contrasting [\pm count], in addition to the number contrast for count nouns, along the following lines:

- (36) a. **màngo j-i** **ñor na/*na-ñu**
 mango CL.SG-DEF.PROX ripe FIN.3SG/FIN-3PL
 ‘The mango [mass] is ripe.’

- b. **màngo b-i** **ñor na/*na-ñu**
 mango CL.SG-DEF.PROX ripe FIN.3SG/FIN-3PL
 ‘The mango [countable, singular] is ripe.’
- c. **màngo y-i** **ñor na-ñu/*na**
 mango CL.PL-DEF.PROX ripe FIN-3PL/FIN.3SG
 ‘The mangoes [countable, plural] are ripe.’

There is variation among speakers and sources: thus, while Thiam (1987: 27) reports **banaana j-** ‘banana’ (mass), our informants use only **banaana bi/yi** as countable (as in (36b-c)), but reject ***banaana j-**. Also, Fal et al. (1990: 129) report only **màngo bi/yi** (count), alongside the tree name **màngo gi**, but not the **ji** class mass noun seen in (36a), which is perfect for our informants. More importantly, it must be observed that, even for the lexemes that show the three options in (36a-c), there is no biunique correlation between masshood and class, as there are many mass nouns in classes other than the **ji** one:

- (37) **ceeb/biĩñ bi** ‘rice/wine’
kafe gi ‘coffee’
këriĩñ li ‘charcoal’
mburu/meew/ndox/sëng mi ‘bread/milk/water/palm wine’
yàpp/saĩ wi ‘meat/milk curd’

All the nouns in (37) score positively on the usual tests for masshood, as exemplified in (38a-b), as they cannot be pluralized or occur with numerals (cf. Tamba et al. 2012: 904–909):

- (38) a. ***ceeb/jur/kafe/këriĩñ/yàpp yi**
 rice/cattle/coffee/coal/meat CL.PL-DEF.PROX
- b. ***ñaari ceeb/kafe/këriĩñ/meew/yàpp**
 two rice/coffee/coal/milk/meat
- c. **ñaari xeet-i ceeb/kafe/këriĩñ/meew/yàpp**
 two type-LINK.PL rice/coffee/coal/milk/meat
 ‘two kinds of rice/coffee/coal/milk/meat’

Note that in Mbakke Wolof, (38b) cannot mean ‘two (kinds of) x’, a meaning that has to be expressed as shown in (38c) for these nouns. Exceptionally, some mass nouns can be pluralized, and in this case this is a “universal packager” (39a) or “universal sorter” (39b) effect (cf. Pelletier 2012: 14):

- (39) a. **mburu y-i**
 bread CL.PL-DEF.PROX
 ‘the loaves of bread’
 b. **biñ-i faraas**
 wine-LINK.PL France
 ‘the French wines’ (sorts of wines)

This distribution is lexically idiosyncratic within Wolof (and, more generally, it differs cross-linguistically, as does the categorization of lexemes denoting the same referent as mass vs. count: cf. e. g., Kulkarni et al. 2013). Thus, **mburu mi** ‘bread’ can be pluralized as in (39a), but not as in (39b), to denote different sorts of bread: ***mburu-i Itali/Faraas** (intended: ‘the sorts of Italian/French bread’). Other mass nouns resist pluralisation altogether, as shown by the ungrammaticality of (40b):

- (40) a. **lem-u faraas**
 honey-LINK.SG France
 ‘French honey’
 b. ***lem-i faraas**
 honey-LINK.PL France
 intended: ‘French honey sorts’

Leaving aside such lexical idiosyncrasies, as for the morphosyntax, all mass nouns take singular agreement, including those assigned to the **ji** NC, as seen in (36a), unlike the **ji** plurals of nouns belonging to the **bi/ji** AC in (31). Again, to an unbiased judgement, this means that those in (36a) are singular nouns, whereas those in (31b)/(32b) are plurals.¹⁷ Consequently, there is no semantic argument here against assuming the ACs **bi/si** and **bi/ji**, with plural **si** and **ji**, distinct from the traditionally acknowledged singular **si** and **ji** NCs.

6 Irregularity and defectiveness in the indefinite article

The syntactic and semantic contrast between **ji** mass nouns in (36a) and **ji** plurals in (32b), as well as that between singular and plural **si** in (30a)/(31b),

¹⁷ An anonymous reviewer contends that (36a-c) belong to one lexeme’s paradigm. Since however (36a) and (36b) select the same (singular) verb agreement, they are better analyzed as the singular forms of two homophonous lexemes, with different semantics, assigned to different NCs. Anyway, this is orthogonal to the recognition of the plural **si** and **ji** NCs.

has an impact on morphology, in the asymmetry observed in the paradigm of the indefinite article. This departs from the determiners seen in (13) in both syntactic distribution and morphological structure, as – together with numerals, and in particular **benn** ‘one, a’ – it is the only determiner that obligatorily precedes, rather than follows, the head noun. It also is the only determiner in which the NC-marking consonant follows, rather than precedes, the class-invariable part. Diachronically, as argued by Doneux (1975: 49), this joint evidence from morphological structure and syntactic distribution points to an earlier stage with class prefixes: e. g., **a-m réew** ‘a country’ < ***a-m-réew**, **a-b sēriñ** ‘a healer’ < ***a-b-sēriñ**.

The paradigm of the indefinite article is exemplified with three classes in (41), comparing the definite proximal article with the indefinite one (cf. Diouf 2009: 101):

(41)	SG	PL	SG	PL	SG	PL
	DEF	téere bi téere yi	fas wi fas yi		kër gi kër yi	
	INDF	ab téere ay téere	aw fas ay fas		ag kër ay kër	
		‘book’	‘horse’		‘house’	

The series of forms in (41) translate as ‘the book/horse/house//s (here)’ (first row) vs. ‘a book/horse/house//some books/horses/houses’ (second row). For the plural of the latter, the semantics is that of an indefinite quantifier, a meaning conveyed in many languages by pluralization of the indefinite article: e. g., Spanish **unos libros** ‘some books’, formally a regular plural to **un libro** ‘a book’.¹⁸ We shall not dwell on the syntax or the semantics of the indefinite

18 Note that **C-enn** ‘one’ is used also in the plural (with NC agreement), which confirms its functional homology with **a-C** (seen in fn. 6), when used as indefinite quantifier/article (cf. Tamba et al. 2012: 897):

- (i) a. **ñ-enn góor**
 CL.PL-SOME man
 ‘some men’
 b. **y-enn xaj**
 CL.PL-SOME dog
 ‘some dog’

According to Pozdniakov and Robert (2015: 13), **C-enn** “tend à remplacer l’article indéfini, désormais rare dans le wolof urbain actuel” [‘tends to replace the indefinite article, now rare in contemporary urban Wolof’]. We did not observe any such replacement of the indefinite article in the competence and usage of our Mbakke informants.

- b. **a-y/*a-s sàmm/Séeréer/sëriñ ñów na-ñu/*na**
 INDF-CL.PL CL.PL-DEF.PROX arrive FIN-3PL/FIN.3SG
 ‘Some shepherds/Serers/healers have arrived.’

- (45) a. **a-b jeeg/janq ñów na/*na-ñu**
 INDF-CL.SG lady/little girl arrive FIN.3SG/FIN-3PL
 ‘A lady/little girl has arrived.’
 b. **a-y/*a-j jeeg/janq ñów na-ñu/*na**
 INDF-CL.PL lady/little girl arrive FIN-3PL/FIN.3SG
 ‘Some ladies/little girls have arrived.’

As seen in (44b) and (45b), the expected forms are ungrammatical, and default **ay** is “drafted in”, determining a paradigmatic asymmetry with respect to the regular classes exemplified in (41), where the NC-marking consonant C_n does not vary. In other words, we observe in (46b) an instance of paradigm irregularity:

- (46) a. regular
- | | | |
|------|------------------|------------------|
| | SG | PL |
| DEF | C_1 - i | C_2 - i |
| INDF | a - C_1 | a - C_2 |
- b. irregular
- | | | |
|------|------------------|---------------------|
| | SG | PL |
| DEF | C_1 - i | C_2 - i |
| INDF | a - C_1 | a - y |
- Where $C_1 = \mathbf{b}$
 $C_2 = \mathbf{j}$ or \mathbf{s}

Note that (46b) is the case for both the **j**- and the **s**- plural NCs, in spite of the fact that, unlike ***aj**, which never occurs at all, **as** does, as shown in (47a):

- (47) a. **a-s sàmm/Séeréer/sëriñ ñów na/*na-ñu**
 INDF-CL.SG shepherd/Serer/healer arrive FIN.3SG/FIN-3PL
 ‘A little shepherd/Serer/healer has arrived.’
 b. **njanq s-i ñów na/*na-ñu**
 little girl CL.SG-DEF.PROX arrive FIN.3SG/FIN-3PL
 ‘The very little girl has arrived.’
 c. **janq j-u ndaw j-i ñów na-ñu /*na**
 little girl CL.PL-REL young CL.PL-DEF.PROX arrive FIN-3PL/FIN.3SG
 ‘The very little girls have arrived.’

However, as seen in the glosses, this is an instance of diminutive **s**- (here with a derogatory overtone), on a par with that in (47b): hence it is singular **si**. Our

informants categorically refuse to use diminutive **as** (or **si**, or any other class-marked determiner of the **s-** series) in the plural, where paraphrases such as (47c) are used instead (cf. Mc Laughlin 1997: 2, who remarks that **si**-diminutives have no plural). In discussing what he calls **si-** and **ji-**collectives, Sauvageot (1965: 74) provides one more example, in addition to **sëriñ** and **sàmm: baana-baana s-** ‘petits marchands, caste ou corporation des petits marchands’ [‘little merchants, caste or corporation of the little merchants’]. This does not occur in our corpus, where **baana-baana s-** can be used only as a (singular) derogatory diminutive, parallel to (47a-b):

- (48) **a-s baana-baana rekk la**
INDF-CL.SG merchant only FIN.3SG
 ‘He’s just a little merchant.’

This already introduces the next point, concerning the selection of the indefinite quantifier form in the two singular NCs **si** and **ji**, whose markers are homophonous with plural **si** and **ji** but which, unlike the latter, have long been recognized as occurring in Wolof. As already shown in (47a), the **si** class shows no irregularity at all, and this goes also for non-diminutive singular **si**, which displays the regular pattern (46a):

- (49) a. **a-s soxna /gor ñów na/*na-ñu**
INDF-CL.SG honourable lady /free man arrive FIN.3SG/FIN-3PL
 ‘An honourable lady/a free man has arrived.’
- a-s soble baax na/*na-ñu**
INDF-CL.SG onion good FIN.3SG/FIN-3PL
 ‘An onion is good.’
- b. **a-y soxna /gor ñów na-ñu/*na**
INDF-CL.PL honourable lady /free man arrive FIN-3PL/FIN.3SG
 ‘Some honourable ladies/free men have arrived.’
- a-y soble baax na-ñu/*na**
INDF-CL.PL onion good FIN-3PL/FIN.3SG
 ‘Some onions are good.’

Thus, the singular **si** class has a different morphological paradigm than plural **si**, with a regular distribution of class markers (46a), as opposed to the irregular one (46b) of plural **si**. As seen in (47)-(49), in this respect, diminutive **si** (without

plural) is identical to non-defective non-diminutive **si**, since for both the indefinite form is **as**. Should one not recognize the contrast between singular **si** (either diminutive/defective or non-diminutive), on the one hand, and plural **si**, on the other, there would be no way of accounting for the distribution of these different paradigms. Note that, since the behaviour of singular **si** is the same for both the AC **si/yi**, exemplified with **soxna** in (49), and the minor AC **si/ñi**, including the only noun **gor** ‘free man’, the condition of having a regular plural form of the indefinite article (as opposed to the irregular one, **ay**, selected by nouns which take the plural **si** class marker) is most economically described as we have done: as a property of the **si** NC, rather than of the two ACs **si/yi** and **si/ñi**.

Singular **ji** displays still another distribution:

- (50) a. ***a-y/*a-j jigéen/yaay/jabar ñów na/*na-ñu**
 INDF-CL.SG woman/mother/wife arrive FIN.3SG/FIN-3PL
 intended: ‘A woman/mother/wife has arrived.’
- b. **a-y/*a-j jigéen/yaay/jabar ñów na-ñu/*na**
 INDF-CL.PL woman/mother/wife arrive FIN-3PL/FIN.3SG
 ‘Some women/mothers/wives have arrived.’

Only plural verbal agreement can occur with the phrases **ay jigéen**, **ay yaay** and **ay jabar**, which consequently are interpreted as ‘some women/mothers/wives’, never as ‘a woman/ mother/wife’. One finds in the literature diverging information on the indefinite article selected by nouns of the singular **ji** class: Diagne (1971: 86) reports **as jigéen** ‘a woman’, but our informants reject this form. As shown in (50), no **a-C** indefinite article occurs with **jigéen** (**ji**), whereas one has it with diminutive **as njigéen** ‘a little woman’. Pozdniakov and Robert (2015: 13), on the other hand, claim that “pour la classe J, au lieu de **aj*, on utilise l’article indéfini de la classe la plus fréquente, B: ainsi pour *jigéen J* ‘femme’, on aura *ab jigéen* ‘une femme’” [‘for the **ji** class, instead of ***aj**, one uses the indefinite article of the most frequent class, B: thus, for **jigéen J** ‘woman’, one gets **ab jigéen** ‘a woman’]. Again, this does not correspond to our Mbakke data, where **ab jigéen** means ‘a sister’, not ‘a woman’ (e. g., **Fatim sama’b jigéen la** ‘Fatim is a sister of mine’): the two homophonous nouns **jigéen ji** ‘the woman’ vs. **jigéen bi** ‘the sister’ are distinguished in Fal et al. (1990: 99).

Needless to say, the unavailability of (50a) is not semantically motivated, since it is perfectly possible, in Wolof as in any language, to express this notion, as seen in (51):

- (51) **j-enn jigéen/yaay/jabar ñów na/*na-ñu**
 CL.SG-one woman/mother arrive FIN.3SG/FIN-3PL
 ‘A/one woman/mother/wife has arrived.’

Clearly, the gap seen in (50a) is an autonomously morphological one, as confirmed by the fact that not only countable nouns (like those in (50)), but also mass nouns of class **ji** (cf. (52a-b)) fall under the same restriction, which is not the case for those belonging to other classes (52c):

- (52) a. **am naa (*a-j/*a-y) alal ci kër gi**
 have FIN.1SG INDF-CL.SG property in house CL.SG-DEF.PROX
 ‘I’ve got (some) property at home.’
- b. **am naa a-y / *a-j màngo ci kër gi**
 have FIN.1SG INDF-CL.PL / INDF-CL.SG mango in house CL.SG-DEF.PROX
 ‘I’ve got mangoes at home.’ [not *‘I’ve got mango (mass)’]
- c. **am naa a-b ceeb/ a-m meew ci kër gi**
 have FIN.1SG INDF-CL.SG rice/ INDF-CL.SG milk in house CL.SG-DEF.PROX
 ‘I’ve got some rice/milk at home.’

As schematized in (53b), this is an instance of defectiveness, since there exists no form occupying the cell defined by the morphosyntactic feature values [indefinite, singular]:

- | | |
|---|---------------------------|
| (53) a. regular | b. defective |
| SG PL | SG PL |
| DEF C ₁ - i C ₂ - i | DEF j-i y-i |
| INDF a-C₁ a-C₂ | INDF * a-y |

Again, as argued for irregularity in (46b), defectiveness in (53b), too, is most economically characterized as a property of the **ji** NC, rather than of the ACs involved, which are two, viz. the **ji/yi** one, exemplified with **jabar** and **yaay** in (50)-(51), as well as the **ji/ñi** one, exemplified with **jigéen** (to which one may want to add **ji** mass nouns such as **alal** ‘property’, which have no plural at all); also the **li/yi** and **li/ñi** ACs behave in the same way (see below).

To sum up, evidence from the structure of the morphological paradigm of the indefinite article supports the need to distinguish a plural vs. singular NC for both **s-** and **j-**. This, in turn, confirms that those defined by the occurrence of plural **s-** and **j-** are ACs in their own right, as shown in (27) above,

and cannot be conflated with those involving singular **s-** and **j-**, despite what is suggested by the analyses, discussed in Section 5, that lumped them together under the category “collective”. This was just a mirage, probably favoured by the well-known cross-linguistic similarities between singular mass and plural count, as well as by the occurrence of NCs traditionally defined as associated with “collective” in other Niger-Congo languages (cf. e. g., Sapir 1965: 61 on Diola-Fogny). But upon closer inspection, the Wolof evidence suggests that this was a wrong move. Should we not recognize that a) **s-** and **j-** occur with a series of Wolof nouns to mark the plural value of the category number, and that b) they define the ACs **b-/s-** and **b-/j-**, respectively, there would be no way of accounting for the morphological paradigm structure contrast revealed by the analysis developed in the present section, as recapitulated in (54):

(54) a. regular determiner paradigm

	SG	PL
DEF	C₁-i	C₂-i
INDF	a-C₁	a-C₂

AGREEMENT CLASSES:

bi/yi, ki/yi, gi/yi, mi/yi, si/yi, wi/yi,

b. irregular determiner paradigm

	SG	PL
DEF	C₁-i	C₂-i
INDF	a-C₁	a-y

AGREEMENT CLASSES:

ki/ñi, gi/ñi, mi/ñi, si/ñi, bi/ñi, bi/ji, bi/si

c. defective determiner paradigm

	SG	PL
DEF	C₁-i	C₂-i
INDF	*	a-y

AGREEMENT CLASSES:

ji/yi, ji/ñi, li/yi, li/ñi

As seen in (54c), not only singular **ji** but also singular **li** lack a form of the indefinite article. Pozdniakov and Robert (2015: 13–15) maintain that this is suppleted by default **bi** (**ab ndab** ‘the container’) or otherwise (**am ndëpp** ‘dance of possession’), while for our informants all these forms are ungrammatical, as **li** nouns only take suppletive **l-enn**:

- (55) **l-enn** /***a-l/** /***a-b** **ndab / ndaw**
 CL.SG-One / INDF-CL.SG / INDF-CL.SG dish / youngster
 ‘one/a dish youngster’

However, what is crucial to us in (54c) is suppletion in the singular **ji** classes. More generally, (54a-c) suggest that, in considering **si** and **ji**, one is best advised to regard singular **si** and **ji** as two distinct NCs with respect to plural **si** and **ji**. In other words, the total number of Wolof NCs amounts to 12, rather than 10: 8 occur in the singular, 4 in the plural, of which 2 are homophonous between the two series but must nonetheless be kept distinct morphologically and syntactically, as demonstrated in this and the previous section.

Conversely, omitting this distinction obscures relevant data. Consider e. g., Pozdniakov and Robert’s (forthcoming, 13) statement that “les formes de l’article indéfini ne sont pas attestées pour les classes du singulier L et J, ni pour la classe plurielle des personnes Ñ” [‘the forms of the indefinite article are not attested for the singular classes L and J, nor for the plural personal class Ñ’]. This “unattestedness”, though, conceals the contrast between the (singular) **ji** and **li** NCs, which are defective of the indefinite article, and the (plural) **ji** and **ñi** NCs, which take the irregular form **ay**.

Note finally that the morphological account of the paradigm asymmetries in (54) is more economical than alternative accounts proposed so far. For instance, Pozdniakov (2010: 97) observes: “En wolof, les noms de parenté n’ont une marque spécifique qu’à la forme définie: voir **doom bi** ‘enfant’, **doom ji** ‘fils/fille’ (forme définie) ~ **ab doom** ‘enfant; fils/fille’ (forme indéfinie)” [‘In Wolof, kinship terms have a specific marker only in the definite form: see **doom bi** ‘child’, **doom ji** ‘son/daughter’ (definite form) ~ **ab doom** ‘child; son/daughter’ (indefinite form)’. This does not correspond to our Mbakke data, where **doom ji** ‘son/daughter’ is perfect, yet **doom bi** cannot mean ‘the child’ but only means ‘the key’ or ‘the fruit’ or ‘the pill’ (corresponding to Fal et al. 1990: 66 entry which reports “**doom bi** 1. fruit [...] 2. clé [...] 3. comprimé”, distinct from the entry **doom ji** ‘enfant par filiation’ [‘child’]; see also Munro and Gayé 1997: 48). Thus, **ab doom** means ‘a key/fruit/pill’ but neither ‘a child’ nor ‘a son/daughter’ (recall that there is no ***doom bi** ‘the child’ in Mbakke Wolof: our informants judge it possible for the urban varieties of Dakar or Banjul, not for their own). To convey the latter meaning, one has to resort to suppletion and use the numeral ‘one’, as already shown in (51) and (55):

- (56) **j-enn** /***a-j/** /***a-b** **doom**
 CL.SG-one / INDF-CL.SG / INDF-CL.SG son/daughter
 ‘a/one son/daughter’

In view of this, the suggestion that kinship semantics has an influence on the paradigmatic asymmetry between the definite and indefinite articles turns out to be misleading. The asymmetries (due to irregularity or defectiveness) depend only on the noun belonging to a given class (plural **ñi**, **ji** or **si**, as opposed to singular **ji**, respectively), whereas kinship terms not belonging to the classes at issue show no asymmetry at all: so, no irregularity is observed in the paradigm of **jigéen bi** ‘the sister’, **sēt bi** ‘the grandchild’ (indefinite **ab jigéen/sēt**), which are also kinship nouns but, crucially, do not belong to the (singular) **ji** class: the latter circumstance, rather than kinship semantics, is the crucial factor here.

One anonymous reviewer disagreed with our proposal but, to defend his or her point, s/he had to ignore this evidence and claim that “The discussion in the rest of the paper [after Section 5, CAB and ML] does not provide further evidence in favour of the authors’ argument that there should be two additional classes”. To prove this claim, s/he needs a counteranalysis showing how one can still maintain that, say, **soble si/as soble** and **Séeréer si/ay Séeréer** belong to one and the same class, in spite of the indisputable fact, revealed by our analysis, that the morphology of the class-defining determiners contrasts categorically.

The same holds for the objection by the third reviewer, who asks “comment distinguer une classe singulier **j**, et une classe pluriel **j**, puisque les formes sont supplétives dans les deux cas? Je ne comprends pas comment on pourrait opposer deux classes ici.” [‘how can one distinguish a singular and a plural **j** class, since the forms are in both cases suppletive? I do not understand how one could contrast two classes here.’]. Actually, as shown in (56), only the singular **ji** class resorts to suppletion, lacking an indefinite article altogether, whereas the plural **ji** class has the same indefinite article **ay** as the remaining plural classes: in light of this sharp contrast – and of the one shown likewise for singular vs. plural **si** in (49a) vs. (44b) – the reviewer’s conclusion that “les descriptions des paradigmes sur lesquelles les auteurs s’appuient dans les sections 5 et 6 militent plutôt pour ne pas reconnaître deux classes supplémentaires de pluriel” [‘the descriptions of the paradigms on which the authors rely in sections 5 and 6 militate rather for not recognizing two more plural NCs’] leaves the burden of proving this claim entirely on her/his shoulders.

7 Noun class and gender: taking stock of the evidence

We have provided so far an analysis of Wolof noun morphology and morpho-syntax making use of the three notions in (2a-c), viz. ICs, NCs and ACs. In

doing this, we have adopted a somewhat “eclectic” analytical procedure, using at the same time “IC”, a standard tool in morphological analysis that hardly ever occurs in descriptions of Wolof (or, more broadly, of Niger-Congo languages), and the notion “NC” that, in contrast, is standardly used in this field, if with diverse denotations, as shown above in (4). Introducing our description of NCs in Section 4.2, we appealed to the reader’s patience and postponed discussion of the justification of an independent notion NC for Wolof. It is now time to address this question.

As shown at the outset (1), for Wolof it is (determiner) agreement, not noun morphology, that allows one to distinguish different NCs. Agreement, however, also provides by definition the diagnostics for genders (or ACs): thus, one may wonder whether both notions are really needed for the analysis of Wolof. Alternatively, one might want to just operate with ICs, on the one hand, and ACs, on the other, whereas what are traditionally labelled “NCs” would have no independent status and would be exhaustively derivable from ACs, by simply specifying the value of the number feature.

Note, first of all, that Wolof does not show any mismatches between the morphology of NCs and morphosyntactic agreement, unlike in other Niger-Congo languages, as exemplified with Swahili in (57) (Contini-Morava 2002: 14, Kilarski 2013: 18):

- (57) a. **m-toto/wa-toto** ‘child/children’ NC 1/2
 b. **Ø-baharia/ma-baharia** ‘sailor/-s’ NC 5/6
 c. **ki-nyozi/vi-nyozi** ‘barber/-s’ NC 7/8
 d. **-sonara/-sonara** ‘goldsmith/-s’ NC 9/10

As seen in (57a-d), Swahili has nouns denoting humans in several different NCs: yet, they all trigger class 1/2 agreement markers on pronouns, adjectives and verbs. Thus, the prefixal morphology of the noun entails the assignment of its singular and plural form (if it’s not a *singulare* or *plurale tantum*) to two NCs, defined independently of agreement and, indeed, not co-extensive with ACs, since all the nouns in (57a-d) belong in the same AC.

In the absence of such evidence for Wolof, one needs other arguments.

7.1 Comparative and diachronic arguments

While contemporary Wolof has no affixal NC morphology, it has been argued (as mentioned in Section 4.1) that what appear today as (minor) ICs with two

distinct singular vs. plural forms are the remnants of prefixal NC-morphology. Thus, for instance, comparison of **këf ki/yëf yi** ‘the thing/the things’ (alongside **lëf li** ‘the [animate/living] thing; vagina’, cf. e. g., Guérin 2011: 74) with Fula **fi** ‘thing’ suggests that in Wolof too the root for ‘thing’ was originally **f**, which then received different NC-prefixes (**k-**, **l-**, **y-**; Becher 2001: 44). Further evidence pointing in the same direction is discussed by Becher (2001: 42–52), who takes stock of reconstructive discussions on the matter starting with Rambaud (1898). 19th-century Wolof as documented in Kobès (1875) still had, for some nouns, such prefixes, which have now been lost and whose consonants used to correspond to the ones of the respective adnominal NC markers:

- (58) **bawal b-** ‘ration de manger’ (Kobès 1875: 19), now **wàll w-** ‘share, quote’ (Fal et al. 1990: 239);
miiw m- ‘boa’ (Kobès 1875: 201), today **yeew m-** (Fal et al. 1990: 269);
gesax g- ‘worm’ (Kobès 1875: 126), now **sax w-** (Fal et al. 1990: 189);
 actually, for our Mbakke speakers **gasax gi** ‘colony of worms’ still coexists with **sax wi** ‘worm’: e.g., **gasax gi yàq na(*-ñu) gerte gi** ‘the worms (literally singular) destroyed the garden’

Earlier evidence is given by the Portuguese voyager captain André Álvares d’Almada, who writes in 1594 “estava un Caciz Jalofo, chamado naquelas partes Bixirim” [‘there was a Jolof religious dignitary, called in that area Bixirim’] (Ferronha 1994: 24–25), “ce qui indique qu’un préfixe (probablement figé) était encore utilisé à cette époque” [‘which indicates that a (probably fixed) prefix was still used at that time’] (Doneux 1978: 45) in the word **sériñ bi**.

The assumption that, in many cases, prefixes like those in (58) were reanalysed as part of the root, as seen above for **këf**, explains the statistical correlations between NC markers and the nouns’ initial consonants (e. g., **guy gi** ‘baobab tree’ vs. **buy bi** ‘baobab fruit’, pl. **wuy yi**), as quantified by Mc Laughlin (1997: 15) (cf. Section 4.2 above).

As already mentioned in Section 4.1, comparative evidence from other North Atlantic languages confirms that their common ancestor had (morphological) NCs of the common Niger-Congo kind. However, this diachronic and comparative argument may not be considered conclusive evidence in favour of the synchronic relevance of NCs as distinct from both ICs and ACs at the same time. Rather, one may argue that a former NC-system dissolved, yielding to a purely morphosyntactic AC system, while leaving just some remnants in the phonological form of nouns with distinct singular vs. plural forms, nowadays analysable as belonging to minor ICs, like scattered islands in a sea of uninflectedness.

7.2 Synchronic arguments

To these diachronic and comparative considerations, though, some synchronic arguments can be added, pointing to the usefulness of the traditional notion “NC”, as distinct from both IC and AC (gender).

One argument rests on descriptive economy in the account of the assignment of nouns to different classes. We have seen in (15b) that all nouns with **ñi** plural denote human beings. This generalization is expressed more economically in this way (i. e. referring to the **ñi** NC), rather than by listing all the seven (minor) ACs involved, i. e., **ki/ñi**, **gi/ñi**, **ji/ñi**, **li/ñi**, **mi/ñi**, **si/ñi**, **bi/ñi**. Other arguments concerning the morphology of determiners were discussed in Section 6. As argued there, the most economic statement of the distribution of regular vs. irregular vs. defective paradigms in the indefinite article is in terms of NCs, rather than of ACs – not unexpectedly, since defectiveness and paradigmatic (ir)regularity are morphological notions. Thus, the paradigmatic gap caused by the non-occurrence of the singular form of the indefinite article for the singular **ji** and **li** NCs ((54c)) is most economically described with reference to just that NC, rather than to the two distinct ACs displaying **ji** in the singular (**ji/yi** and **ji/ñi**), and, respectively to the two ACs with singular **li** (**li/yi** and **li/ñi**). The same can be repeated for the description of the paradigmatic regularity observed for singular **si** in (54a), as opposed to the irregularity of plural **si** in (54b): regularity is a property of the paradigm of the singular **si** NC, which is reflected in the two ACs **si/yi** and **si/ñi**. In sum, even if not nearly as pervasive as the evidence available for other Niger-Congo languages (hinted at with Swahili examples in (57)), some synchronic regularities do suggest that one should maintain a descriptive notion “NC”, as currently used in Wolof studies.

The term “NC” is also used with reference to a series of Wolof function words that neither have to do with nouns, nor signal agreement in any sense. An example of this terminological usage is provided by Tamba et al. (2012: 895), who mention “three ‘defective’ noun classes which do not contain any overt nouns” but “nonetheless contain demonstratives, articles, and wh-words”, as exemplified in (59):

(59) a. class	b. demonstrative	c. wh
fi -class ‘locative’	f-oo-f-u ‘aforementioned place’	f-an ‘where?’
ci-/si -class ‘prepositional’	c-oo-c-u ‘in/at/on aforementioned place’	c-an ‘in/at/on where?’
ni -class ‘manner’	n-oo-n-u ‘aforementioned way’	n-an ‘how, in what way?’

The reason these are labelled “NCs” and listed with NCs *stricto sensu* is made explicit by Torrence (2013: 16) (from where (59) stems): “These noun classes occur only with silent place, location, and manner nouns.” While the assumption of “silent nouns”, or “null nominals” (Torrence 2013: 163), is a theory-internal move, a more theory-neutral way of explaining why those in (59) are sometimes listed among NC-markers is that “[B]ien qu’il ne fonctionnent pas comme indices de noms, ils se comportent par ailleurs comme les autres classificateurs” [‘Though they are not adnominal, they otherwise behave like other classifiers’] (Fal et al. 1990: 17), in the sense that they form the variable part in a set of function words that are formed in a way parallel to those seen in Section 4.2 (cf. (13)), with a “class”-marking **C-** plus a class-invariable part that conveys demonstrative or other grammatical meaning. As exemplified in (60) (cf. Diouf and Yaguello 1991: 22), the locative class-marker **f-** also occurs, with the vowels otherwise signalling [± near speaker] (i. e., **-i** vs. **-a**), to form the translational equivalents of ‘here’ vs. ‘there’, which is not a rare pattern across Niger-Congo (e. g., in Bantu and Bantoid; cf. Grégoire 1975: 118; Toporova 1997: 58; Maho 1999: 197):

(60) a. **mu ngi f-i**

3SG FIN LOC.PROX

‘S/He is here.’

b. **mu nga f-a**

3SG FIN LOC.PROX

‘S/He is there.’

Other authors cite the forms in (59) in the context of mentioning NCs (e. g., Gamble 1957: 144), but simply calling their variable **C-** a “marker” (not a **noun-class** marker): e. g., Guérin (2011: 74). Another terminological option, as adopted in Sapir’s (1965: 29–30) description of Diola-Fogny, is to call this kind of morphemes “independent concord forms”

Summing up, the marking of “locative”, “prepositional” and “manner” in (59) is built symmetrically with respect to the morphology of targets of agreement triggered by nouns, and this morphological symmetry cannot be captured with either of the notions “IC” or “AC” as used, with reference to noun lexemes, in sections 4.1 and 4.3 respectively.

7.3 Pronominal gender? NC-markers and the encoding of [±human]

There is still another domain in which the by now familiar class marking occurs, in a way that is intertwined with the NCs addressed in Section 4.2, but with an

interesting difference. We have seen in Section 4.2 that adnominal demonstratives and interrogatives are class-marked, as exemplified in (61) (apart from the last two in (61b), which involve the two plural NCs whose recognition has been argued for in sections 5–6, this kind of example is standardly mentioned in Wolof grammars; e. g., Diagne 1971: 86–87):

(61) a. singular

doom	b-an	‘which key?’
golo	g-an	‘which monkey?’
nit	k-an	‘which person?’
jigéen	j-an	‘which woman?’
lēf	l-an	‘which thing?’
xar	m-an	‘which sheep?’
safara	s-an	‘which fire?’
fas	w-an	‘which horse?’

b. plural

xar	y-an	‘which sheep?’
nit	ñ-an	‘which persons?’
jeeg	j-an	‘which ladies?’
sàmm	s-an	‘which shepherds?’

When interrogatives and demonstratives are used pronominally, they neither show the NC-related variation seen in (61), nor just occur in a class-/gender-invariable form like English ‘what’/‘who’. Rather, their initial consonant varies, depending on the noun that is being pronominalized, but in a different way:

(62) a. **k-an** **nga gis ?**

HUM.SG-INTERR 2SG see
‘Whom.SG have you seen?’

b. **ñ-an** **nga gis ?**

HUM.PL-INTERR 2SG see
‘Whom.PL have you seen?’

c. **b-an** **nga gis ?**

N_HUM.SG-INTERR 2SG see
‘What.SG have you seen?’

d. **y-an** **nga gis ?**

N_HUM.PL-INTERR 2SG see
‘What.PL have you seen?’

As seen from the glosses, the interrogative pronoun shows a consonant alternation of the same kind associated elsewhere with NC contrasts, although there is

no noun to trigger agreement here. Crucially, the four in (62a-d) are the only possibilities for this syntactic context, i. e., there are no ***C-an** forms corresponding to the remaining NCs listed in (61) that may occur when the *wh*-expression contains no noun. This implies that, in (62a-d), no direct correspondence obtains with the NC markers homophonous with the initial consonants in **C-an**. In fact, the answer to **b-an** (62c) can be either **xaj bi** ‘the dog’ or **simis bi** ‘the shirt’, as well as, say, **golo gi** ‘the monkey’ or **safara si** ‘the fire’. This is so because these nouns, belonging to different classes, all denote non-humans. On the other hand, **xale bi** ‘the child’ would not be a felicitous answer to (62c), although its determiner shares an initial **b-** with **b-an**. This shows that what one finds in (62a-d) is not agreement of the kind considered in Section 4.3: rather, it is a separate [\pm human] contrast that is encoded there. That humanness rather than animacy is at stake here, is shown by the fact that animal names pattern like nouns denoting objects (cf., e. g., Sauvageot 1965: 84), as exemplified with demonstrative pronouns in (63c-d):

- (63) a. **k-ii** **k-u** **góor la**
 HUM.SG-PROX.DEM HUM.SG-LINK male FIN.3SG
 ‘This is a male/boy.’ [pointing to the referent]
- b. **ñ-ii** **ñ-u** **góor la-ñu**
 HUM.PL-PROX.DEM HUM.PL-LINK male FIN-3PL
 ‘These are males/boys.’ [pointing to the referent]
- c. **b-ii** **b-u** **góor la**
 N_HUM.SG-PROX.DEM N_HUM.SG-LINK male FIN.3SG
 ‘This is a male (animal).’ [pointing to the referent]
- d. **y-ii** **y-u** **góor la-ñu**
 N_HUM.PL-PROX.DEM N_HUM.PL-LINK male FIN-3PL
 ‘These are males/male animals.’ [pointing to the referent]

As already shown in Section 4.2, also adnominal demonstratives show a complete agreement pattern with the head noun:

- (64) a. singular
- | | |
|--------------------|------------------|
| góor g-ii | ‘this man’ |
| jigéen j-ii | ‘this woman’ |
| maaka m-ii | ‘this straw hat’ |
| safara s-ii | ‘this fire’ |
| màtt w-ii | ‘this bedbug’ |
| jeeg b-ii | ‘this lady’ |
| sàmm b-ii | ‘this shepherd’ |

b. plural

góor ñ-ii	‘these men’
jigéen ñ-ii	‘these women’
maaka y-ii	‘these straw hats’
safara y-ii	‘these fires’
màtt y-ii	‘these bedbugs’
jeeg j-ii	‘these ladies’
sàmm s-ii	‘these shepherds’

It is of course not coincidental that the non-adnominal interrogative pronouns **b-an/y-an** in (62c-d), used when inanimate referents (sg./pl.) are implied, correspond to the default NCs (and the default AC), nor that the interrogative pronouns (62a-b), which refer to animate referents, correspond to the class markers seen in **nit ki/ñi** ‘the person/-s’. The data in (62)-(63) are sometimes described as instantiating “une distinction en genre [...] du type humain/non-humain” [‘a gender distinction of the human/non-human kind’] (Sauvageot 1965: 84). However, one should beware of possible confusions, since there are indeed many languages in which [\pm human] (or [\pm person(al)]) does play a role in the gender system. This is, e. g., the situation found in some Western and Northern Germanic languages, as discussed for Danish by Plank and Schellinger (1997: 54):

(65) Gender in 3rd-person personal pronouns in Danish (subjective case)

		SINGULAR	PLURAL
PERSON	MASCULINE	han	de
	FEMININE	hun	de
NON-PERSON	COMMON	den	de
	NEUTER	det	de

The crucial difference is that the non-semantically based ACs of Wolof are not, in any sense, further subdivisions, within a two-layered gender system, of the binary, semantic [\pm human] contrast in (62a-b)/(63a-b) vs. (62c-d)/(63c-d), but rather cut across it. From this, one must conclude that, in Wolof, the [\pm human] contrast encoded in some pronouns is independent of the gender system as schematized in (26)-(27).

For this mutual independency, as well as for the integration of [\pm human] in the gender system exemplified with (60), one can adduce many cross-linguistic parallels. Crucially, [\pm human] is encoded in interrogative pronouns in many languages lacking grammatical gender altogether, as exemplified, e. g., by Basque **nor?** ‘who?’ vs. **zer?** ‘what?’, or their respective counterparts in Finnish (**kuka?** vs. **mikä?**), Turkish (**kim?** vs. **ne?**), Georgian (**vin?** vs. **ra?**)

etc. (cf. Manzelli 2006: 80), and this is categorically the case across Niger-Congo (cf. Idiatov 2007) except in some Bantu C (Guthrie 1967–71) languages analysed in Idiatov (2009). In sum, in Wolof, [\pm human] marking in (62)-(63) coexists with gender in a similar way as, say, the French contrast between **qui** ‘who?’ and **quoi** ‘what?’ does.

But while the encoding of non-humanness in (62c-d) is functionally independent of gender in Wolof, it does relate formally to NCs via selection of the default NC exponents **bi/yi** for [–human], contrasting with the **ki/ñi** exponents for [+human], as found for nominal agreement with the single noun lexeme **nit** ‘person’. According to Sapir (1971: 75), this “suggests an underlying fourfold class system: personal **k-/ñ-** // non-personal **b-/y-**”, which by no means implies that the Wolof NC system as observed today is, in any sense, a successor of such a simpler, semantically based, system, given that proto-Atlantic must have had a full-fledged prefixal NC system involving about 15 classes (Doneux 1975: 114), some traces of which are still to be observed in Wolof, as seen in Section 7.1. Rather, the two (i. e., the semantically largely arbitrary NC system and the fourfold humanness-based contrast) must have coexisted all along.

8 Conclusion

To conclude, our analysis results in a revision of current accounts of Wolof noun morphology and morphosyntax: while these invariably assume ten NCs marked by different class markers (eight for the singular and two for the plural), we have shown that, upon closer inspection, two of the class markers, **ji** and **si**, turn out to be pairs of homophones (singular **ji** and **si** vs. plural **ji** and **si**) with distinct morphological and morphosyntactic properties. This yields a total of twelve NCs (eight singular and four plural). Their pairings, described in Section 4.3 and schematized in (26), result in 17 distinct ACs.

From the point of view of method, we have argued for the usefulness of a description in terms of ICs, NCs and ACs. Both ICs and ACs denote pairings of word forms (belonging to two distinct NCs), the former in a strictly morphological/paradigmatic way, the latter with regard to the agreement patterns these word forms select. As for NCs, our discussion allows us to take a stance on the terminological and conceptual issue hinted at in Section 3. For the analysis of Wolof, it proves useful to maintain the notion of “NC” as word-form-based, as currently done in the study of Niger-Congo languages, though with some ambiguity (cf. (4e-f)) between (4a), where the agreement pattern triggered by the word form at issue is the defining property, and (4c), where it is the (affixal) morphology of the word form itself that is taken as criterial for classhood. For

Wolof, most evidence of NCs is morphosyntactic ((4a)), but we have argued in Section 7 that at least some morphological evidence is (still) there, because several generalizations are most economically expressed in terms of NCs.

Finally, it follows from the above that the analysis of Wolof would not benefit from adopting the – also widespread – terminological convention that uses “‘noun class’ as a cover term for noun class and gender” (Aikhenvald 2000: 18, or, recently, Sambiéni 2014: 214).

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