Feature licensing and the number interpretation of bare nominals in Wolof

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1 Introduction

A. A common component of analyses of the PCC (Person-Case or *me/lui* Constraint): the Person Licensing Condition Béjar & Rezac (2003, 2009)

- Roughly, the PCC is a restriction on the person features of two arguments (generally, two objects) of the same predicate.
- In Catalan, for instance, it cannot be the case that the direct object of a ditransitive verb is a participant, while the indirect object is in the 3rd person.

(1) *PCC in Catalan*

a. El director, **me l'**=ha recomanat la Mireia.
the director 1SG 3SG.ACC=has recommended the Mireia
'As for the director, Mireia has recommended him to me.'

b. * A-l director, **me li** ha recomanat la Mireia.
to-the director 1SG 3SG.DAT has recommended the Mireia
Int.: 'As for the director, Mireia has recommended me to him.'
(Bonet 1991, cited by Kalin 2019, p. 16)

- In order to account for the PCC, Béjar & Rezac (2003, 2009) propose the Person Licensing Condition (PLC), a requirement that participant person features be licensed by the operation Agree.

(2) ***Person-Licensing Condition (PLC)***

An interpretable 1st/2nd person feature must be licensed by entering into an Agree relation with a functional category.

(Béjar & Rezac, 2003, p. 53)

- Under this view, the reason why (1b) is ungrammatical is that the participant (specifically, 1st person) theme *me* 'me' cannot be licensed, in violation of the PLC (2).
  - (Ancillary assumptions about the divisibility of [Number] and [Person] and the order in which they probe are also necessary.)

B. Generalized nominal licensing (Kalin, 2017, 2019)

- Importantly, the features that require licensing by way of Agree in (2) are **interpretable**.
- Kalin (2017, 2019) finds a few similarities between the PCC and DOM (Differential Object Marking) and proposes a theory of generalized nominal licensing that is also based on the need of certain interpretable features to be Agreed with.
  - E.g., [+SPECIFICITY], [+DEFINITENESS], [+ANIMACY], and other properties that regulate DOM.
- One may wonder whether [+NUMBER], another nominal feature, may be subject to a condition like the PLC.
  - I argue that this is indeed the case.
  - The argument will be based on the number interpretation of bare nominals in Wolof.

C. Several languages allow for their nominals to occur in bare form.

- Bare form: without the functional morphology that usually appears in the nominals of a given language, including determiners and number morphology. These nominals are dubbed **bare nominals** (BNs)
- Correspondingly, full nominal: nominals that do contain that functional morphology.

D. Number neutrality

- Crosslinguistically stable property of BNs: they are number neutral.

(3) a. *Brazilian Portuguese* (Müller 2002, (51))
Unicórnio tem **chifre**.
unicorn has horn
'Unicorns have (an unspecified number of) horns.'

b. *Mandarin* (Rullmann & You 2006, (1))
Zuotian wo mai le **shu**.
yesterday I buy ASP book
'Yesterday, I bought one or more books.'

c. *Hindi* (Dayal, 2011, (7b); adapted)
anu **bacca** sambhaaltii hai.
Anu child look.after-IMP be-PRS
'Anu looks after (one or more) child(ren).'

- **Number neutral**: lack of a commitment to a singular or plural interpretation. This property is also known as 'general number' (Corbett, 2000).
- It is often taken to be a signature property of BNs crosslinguistically (Dayal, 2011, and references therein).

E. Not all BNs are number neutral.

- Dayal (2011) and Rinaldi (2018) cast doubt on this generalization, showing that BNs in some languages are not number neutral, but singular.

- This is also true of BNs in Wolof.[1]

  (4) Gis-na-a **ndonggo darra** senegalee.
  see-NA-1SG student Senegalese
  'I saw a Senegalese student.'

  (Speaker commented that this sentence is false if I saw more than one Senegalese student.)

F. Teasing apart number neutrality vs. exclusively singular interpretation

- One way to distinguish between number neutrality and exclusively singular interpretation: saturation of collective predicates.
- Some languages where BNs are number neutral:

  (5) *Brazilian Portuguese*

  A professora agrupou **aluno** no parque.
  the teacher grouped.together student in.the park
  'The teacher gathered students in the park.'

- Compare with Wolof:

  (6) * Jàngalekat b-i dajeele-na **xale** ci bayaal b-i.
  teacher CM.SG-DEF gather-NA.3SG child PREP park CM.SG-DEF
  Lit.: 'The teacher gathered child in the park.'

- Making sense of this contrast:
  - If the BN is number neutral (Brazilian Portuguese and Mandarin), a plural interpretation is available, hence why the BN can saturate a collective predicate.
  - This implies that BNs in Wolof are not number neutral, otherwise (6) would be grammatical.

G. Goals of this presentation

- Show that BNs in Wolof are singular and not number neutral.
- Show under which conditions this generalization must be relaxed.
- Propose an analysis that is based on the [+NUMBER] counterpart of the PLC (2).

1.1 The structure of full nominals in Wolof

A. Class markers

- Determiners contain a class marker (gloss: CM) affixed to them (Babou & Loporcaro, 2016).

[1] Abbreviations: CAUS = causative, CM = class marker, COMP = complementizer, COP = copula, DEF = definite, GEN = genitive, IMPF = imperfective, ITER = iterative, NA = sentential particle for neutral sentences (*na*), NEG = negation, NON.FIN = nonfinite, OBJ = object, OBL = oblique, PL = plural, POSS = possessive, PREP = preposition, PROG = progressive, RECIP = reciprocal, REFL = reflexive, SG = singular.

(7) a. Xale **y-i** lekk-na-ñu gato **b-i**.
child CM.PL-DEF eat-NA-3PL cake CM.SG-DEF
'The children ate the cake.'

b. Xadi gis-na **a-b** sàcc.
Xadi see-NA.3SG INDEF-CM.SG thief
'Xadi saw a thief.'

c. Awa jàpp-na **a-y** sàcc.
Awa catch-NA.3SG INDEF-CM.PL thief
'Awa caught some thieves.'

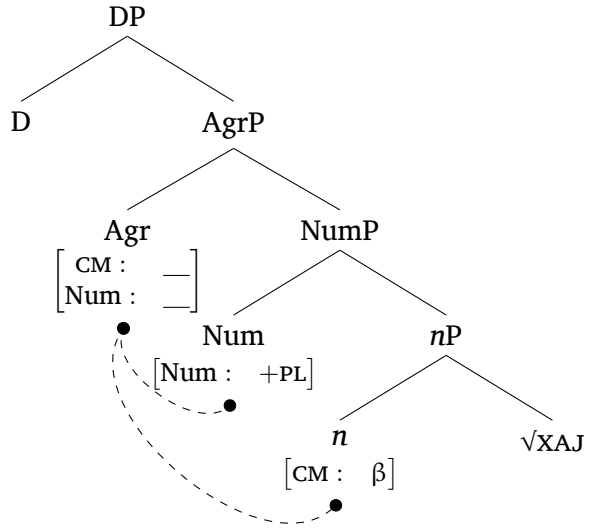
(Tamba *et al.* , 2012, (2a/32a/33b); glosses and spelling adapted for uniformity)

- Besides the class a noun belongs to, the class marker encodes number information (singular or plural).
- For instance, *sàcc* 'thief' remains constant in (7b) and (7c); whether the DP it heads is interpreted as singular or plural is correlated with the class marker used, *b* and *y*, respectively.

B. Structure assumed for nominals in Wolof (see more discussion in Fong 2020)

- I follow Kihm (2005) and Acquaviva (2009) in assuming that gender and other root-specific morphology is encoded in the categorizer that merges with the root.
- Proposal: the class marker is a feature which is a specification of the categorizer *n*.
- Furthermore, I postulate a single head (AgrP) that probes both for a class marker and a number feature. It is this single head (Agr) that is exponed as the class marker.

(8)



- Preview of analysis: BNs lack a class marker, though they do have a particular number interpretation.
- I will propose that BNs are smaller than full nominals in lacking at least an AgrP.

2 BNs in Wolof are singular (when unmodified)

A. In this section:

- Some diagnostics for number neutrality and how Wolof BNs behave with respect to these diagnostics.[2]
  - *i.* Saturation of collective predicate;
  - *ii.* Pronoun used to refer back to BN;
  - *iii.* BN as antecedent of plural reflexive.
- BN has the same behavior as a singular full nominal.

B. Saturation of collective predicate

(9) Dajeele *requires a plural object*

Jàngalekat b-i dajeele-na *a-b xale / a-y xale ci
teacher CM.SG-DEF gather-NA.3SG *INDEF-CM.SG child / INDEF-CM.PL child PREP
bayaal b-i.
park CM.SG-DEF
'The teacher gathered *a child/some children in the park.'

(10) *BN in Wolof cannot be the object of* dajeele

* Jàngalekat b-i dajeele-na **xale** ci bayaal b-i.
teacher CM.SG-DEF gather-NA.3SG child PREP park CM.SG-DEF
Lit.: 'The teacher gathered student in the park.'

C. Discourse anaphora

(11) *Discourse anaphora must match number of antecedent*

a. Gis-na-a a-b jàngalekat. Maymuna bëgg-na ko / *leen.
see-NA-1SG INDEF-CM.SG teacher Maymuna like-NA.3SG OBJ.3SG / *OBJ.3PL
'I saw a teacher yesterday. Maymuna admires her/*them.'

b. Gis-na-a a-y jàngalekat. Maymuna bëgg-na *ko / leen.
see-NA-1SG INDEF-CM.PL teacher Maymuna like-NA.3SG *OBJ.3SG / OBJ.3PL
'I saw some teachers yesterday. Maymuna admires *her/them.'

(12) *BN cannot be antecedent of plural discourse anaphora*

Gis-na-a **jàngalekat**. Maymuna bëgg-na ko / *leen.
see-NA-1SG teacher Maymuna like-NA.3SG OBJ.3SG / *OBJ.3PL
'I saw a teacher yesterday. Maymuna admires her/*them.'

[2]Because of time constraints, I omit some diagnostics. See Fong (2020) for more data.

D. Plural reflexive[3]

(13) *Plural DP can be antecedent of reflexive*

a. Kadeer sang-aloo-na xale y-i seen bopp.
Kadeer wash-CAUS-NA.3SG child CM.PL-DEF POSS.3PL head
'Kadeer made the children wash themselves.'

b. Kadeer sang-aloo-na xale b-i bopp=am.
Kadeer wash-CAUS-NA.3SG child CM.SG-DEF head=POSS.3SG
'Kadeer made the child wash himself/herself.'

c. * Kadeer sang-aloo-na xale b-i seen bopp.
Kadeer wash-CAUS-NA.3SG child CM.SG-DEF POSS.3PL head
Lit.: 'Kadeer made the child wash themselves.'

(14) *BN cannot be antecedent of plural reflexive*

* Jàngalekat b-i sang-aloo-na **ndonggo darra** seen bopp.
teacher CM.SG-DEF wash-CAUS-NA.3SG student POSS.3PL head
Lit.: 'The teacher made student wash themselves.'

- The BN can be the antecedent of a singular reflexive. As such, (14)'s ill-formedness cannot be caused by the BN's inability to be an antecedent.

(15) *BN can be antecedent of singular reflexive*

Jàngalekat b-i sang-aloo-na **ndonggo darra** bopp=am.
teacher CM.SG-DEF wash-CAUS-NA.3SG student head=POSS.3SG
'The teacher made some student wash himself/herself.'

2.1 Interim summary

A. The data discussed so far is summarized in the table below:

(16)

		Full nominal		Bare nominal
		Singular	Plural	
i.	Collective predicate	*	✓	*
ii.	Discourse anaphora	SG	PL	SG
iii.	Plural reflexive	*	✓	*

- Noteworthy: the behavior of BNs has basically the same profile as that of a singular full nominal.
- This contrasts with the number-neutral interpretation that is usually taken to be a cross-linguistically stable property of BNs.

B. Next section

- Refinement of this generalization: we will look at the effect (or lack thereof) of the addition of a modifier.

[3]The same type of data can be reproduced with reciprocals, not included here for time constraints.

- There will be a contrast correlated with the absence or presence of number morphology in the modifier and the number interpretation of the BN.
- Yes plural morphology ⟷ BN interpreted in the plural.
- No plural morphology ⟷ BN interpreted in the singular (it retains the singular interpretation, sumamrized in (16)).

- The same correlation will be seen in the contrast between two types of possessive nominals in Wolof (see appendix).

3 Addition of modifier to BN in Wolof

3.1 Relative clause

A. Morphosyntax of relative clauses

- Relative clauses in Wolof contain a class marker prefixed to the relative complementizer *u*.
- The class marker cross-references the class and number of the head of the relative.

(17) Roxaya xam-na a-**b** jàngalekat [$_{RC}$ **b**-u Maymuna bëgg].
Roxaya know-NA.3SG INDEF-CM.SG teacher [CM.SG-COMP Maymuna like]
'Roxaya knows a teacher that Maymuna admires.'

- That matching is obligatory:

(18) a. Samba tej-na palanteer [b-u tilim] b-i. /
Samba close-NA.3SG window [CM.SG-COMP dirty] CM.SG-DEF /
*y-i
*CM.PL-DEF
'Samba closed the window that is dirty.'

b. Samba tej-na palanteer [y-u tilim] y-i /
Samba close-NA.3SG window [CM.PL-COMP dirty] CM.PL-DEF /
*b-i.
*CM.SG-DEF
'Samba closed the windows that are dirty.'

- Assuming a raising analysis of relative clauses (see overview in Bhatt 2002) for Wolof, Torrence (2013) analyzes the occurrence of the class marker as an instance of complementizer agreement.
  - Under this view, the mismatch in (34) is the result of the impossibility of mismatch to result from Agree with the same goal.

B. BN and relative clauses

- BNs can be modified by either a relative clause with either a singular or a plural class marker.

(19) a. Samba tej-na **palanteer** [b-u tilim].
Samba close-NA.3SG window [CM.SG-COMP dirty]
'Samba closed some window that is dirty.'

b. Samba tej-na **palanteer** [y-u tilim].
Samba close-NA.3SG window [CM.PL-COMP dirty]
'Samba closed some windows that are dirty.'

- Previous section: BNs in Wolof have the same number interpretation as singular full nominals.
- Why then can they be modified by a plural relative clause (19b) too?

C. Number interpretation of BN modified by relative clause

- Singular relative clause: singular interpretation [*not shown*].[4]
- **Plural relative clause: plural interpretation.**

(20) *BN modified by plural relative clause can be object of collective predicate*

Jàngalekat b-i dajeele-na **xale** [y-u Samba xam] ci
teacher CM.SG-DEF gather-NA.3SG child [CM.PL-COMP Samba know] PREP
bayaal b-i.
park CM.SG-DEF
'The teacher gathered some students who Samba knows in the park.'

(21) *BN modified by plural relative clause can be antecedent of plural discourse anaphora*

Gis-na-a **jàngalekat** [y-u Roxaya xam]. Maymuna bëgg-na
see-NA-1SG teacher [CM.PL-COMP Roxaya know] Maymuna like-NA.3SG
*ko / leen.
*OBJ.3SG / OBJ.3PL
'I saw some teachers who Roxaya knows. Maymuna admires them.'

(22) *BN modified by plural relative clause can be antecedent of plural reflexive*

Jàngalekat b-i sang-oloo-na **ndonggo darra** [y-u njool
teacher CM.SG-DEF wash-CAUS-NA.3SG student [CM.PL-COMP tall
] seen bopp.
] POSS.3PL head
'The teacher made some tall students wash themselves.'

D. Summary

- While unmodified BNs are singular, BNs modified by a relative clause that contains a plural class marker (*y*) have a plural construal.
- Next section: contrast between relative clauses and modifiers that contain any number morphology.

[4] A BN modified by a singular relative clause (i.e. a relative clause where the class marker is in the singular) behaves in the same way as an unmodified BN. The data is omitted because of time constraints, but see Fong (2020).

3.2 Plain modifier

A. Morphosyntax of plain modifiers

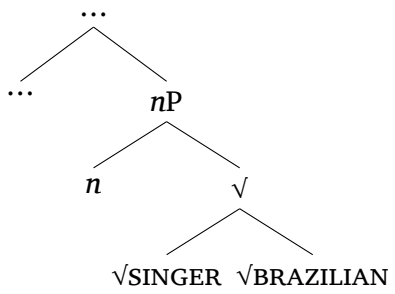
- In Wolof, nominal modifiers are usually relative clauses (e.g. *tall* in (22)).
- Nonetheless, expressions for nationality may occur without the syntax of a relative clause. I dub these expressions 'plain modifiers'.

(23) a. Mareem dajeele-na a-y woykat brezilien.
Mareem gather-NA.3SG INDEF-CM.PL singer Brazilian
'Mareem gathered some Brazilian singers.'

b. Samba bëgg-na tew/ataaya angale.
Samba like-NA.3SG tea/tea English
'Samba likes English tea.'

- I assume that plain modifiers are compounded with the nominal they modify:

(24)



B. The number interpretation of BN modified by plain modifier

- Recall: plural relative clauses allow a BN to be plural.
- Plain modifiers do not have a "pluralizing" effect in the number interpretation of BN.

(25) *BN modified by plain modifier cannot saturate collective predicate*

a. * Roxaya dajeele-na **fécckat** brezilien.
Roxaya gather-NA.3SG dancer Brazilian
Lit.: 'Roxaya gathered Brazilian student.'

b. * Jàngalekat b-i dajeele-na **ndonggo darra** angale ci
teacher CM.SG-DEF gather-NA.3SG student English PREP
bayaal b-i.
park CM.SG-DEF
Lit.: 'The teacher gathered English student in the park.'

(26) *BN modified by plain modifier is referred back to with singular pronoun*

Gis na-a **woykat** brezilien. Maymuna bëgg na ko / *leen.
see NA-1SG singer Brazilian Maymuna like NA.3SG OBJ.3SG / *OBJ.3PL
'I saw a Brazilian singer. Maymuna admires her/*them.

(27) *BN modified by plain modifier cannot be antecedent of reciprocal*

* Jangalekat b-i desin-ante-loo-na **nonggo darra** brezilien.
teacher CM.SG-DEF draw-RECIP-CAUS-NA.3SG student Brazilian
Lit.: 'The teacher made student draw each other.'

C. Questions raised by the data:

(28) i. How can we account for the exclusively singular interpretation (and not number neutral) interpretation of BNs in Wolof?

ii. Why does a BN without any plural morphology behave as if it were singular, while a BN merged that does contain plural morphology behaves as if it were plural?

4 A feature licensing analysis of BNs in Wolof

A. Possible values for [+NUMBER] in Wolof[5]

- Full nominals in Wolof can be either singular or plural.

(29) Xale **y-i** lekk-na-ñu gato **b-i**.
child CM.PL-DEF eat-NA-3PL cake CM.SG-DEF
'The children ate the cake.'

- All things equal, the same values for the number feature should be available for BNs as well.
- Desideratum: only the derivation with a singular BN converges.
- Proposal: this happens because of the failure to comply with the Number Licensing Condition (30).

Number Licensing Condition (NLC)

(30) An interpretable [+PLURAL] feature must be licensed by entering into an Agree relation with a functional category.

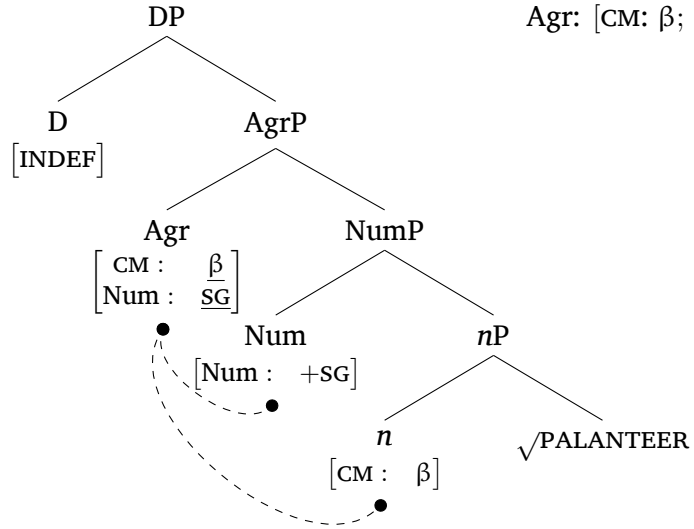
- Something along the lines of (30) is also independently assumed by Keine *et al.* (2019) in their account of hierarchy effects in assumed identity constructions in German.
- Why would the NLC restricted to plural?
  - Nevins (2011): 'singular' is the absence of a number specification.
  - This could be why a condition like (30) cannot be formulated based on [+SINGULAR].

B. How full nominals comply with the NLC (30)

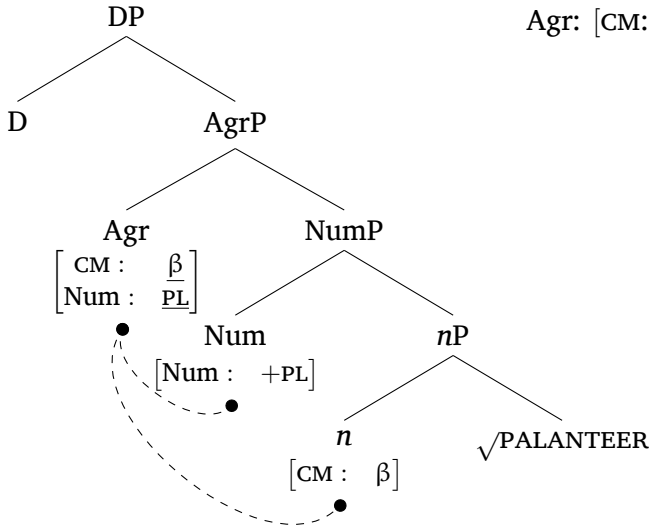
- Proposal from before: AgrP, which probes for Number and class marker, formalized as a feature.
- Recall: I assume that root-specific information like class or gender is encoded at categorizers (Kihm, 2005; Acquaviva, 2009).

[5]Because of time constraints, I will not discuss alternative analyses. See Fong (2020).

(31) a. Agr: [CM: β; Num : SG] ↔ */b/*



b. Agr: [CM: β; Num : PL] ↔ */y/*



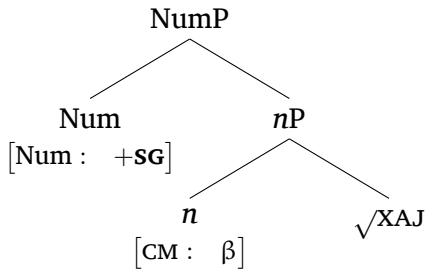
- In (31b), the NLC (30) is satisfied: the number feature in Agr Agrees with the plural feature in Num.
- (31a) satisfies the NLC vacuously, as the feature in Num in unmarked (i.e. singular).

C. The structure of bare nominals and its number interpretation

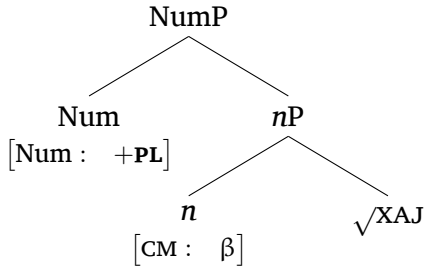
- Following Massam (2001), a.o., I assume that BNs have a truncated structure.
- Specifically, I propose that BNs in Wolof lack an AgrP layer, since they lack a class marker.
- NumP is retained under the assumption that this is the only locus of number interpretation (Ritter 1991, 1992; Harbour 2011).[6]

[6] I am so far agnostic regarding the projection of a silent DP layer (for convenience, I omit a DP in the BN representations to follow).

(32) a. *NLC satisfied (vacuously)*



b. * *NLC violated*



- Unlike what happens in the full nominal (31), in a BN, there is nothing to Agree with a [PLURAL] Num. As such, only a BN with a [SINGULAR] Num could converge.
- This would be why unmodified BNs in Wolof are exclusively singular.

D. The plural morpheme in the relative clause as an instance of Agree.

- Torrence (2013): the class marker prefixed to the relative complementizer results from Agree.
- I propose to extend this analysis to the class markers that appear affixed to determiners.
- That class markers are the exponent of Agree is further suggested by the fact that more than one class marker can occur in the same nominal (cf. Kramer's (2009) analysis of multiple determiners in Amharic in terms of Agree).

(33) Bindakat b-i binda-na a-**b** taalif [**b**-u Samba
writer CM.SG-DEF write-NA.3SG INDEF-CM.SG poem [CM.SG-COMP Samba
bëgg].
like]
'The writer wrote a poem that Samba likes.'

- The class markers in the determiner and in the relative complementizer must match (34). This is a property that can be attributed to multiple Agreement with the same goal.

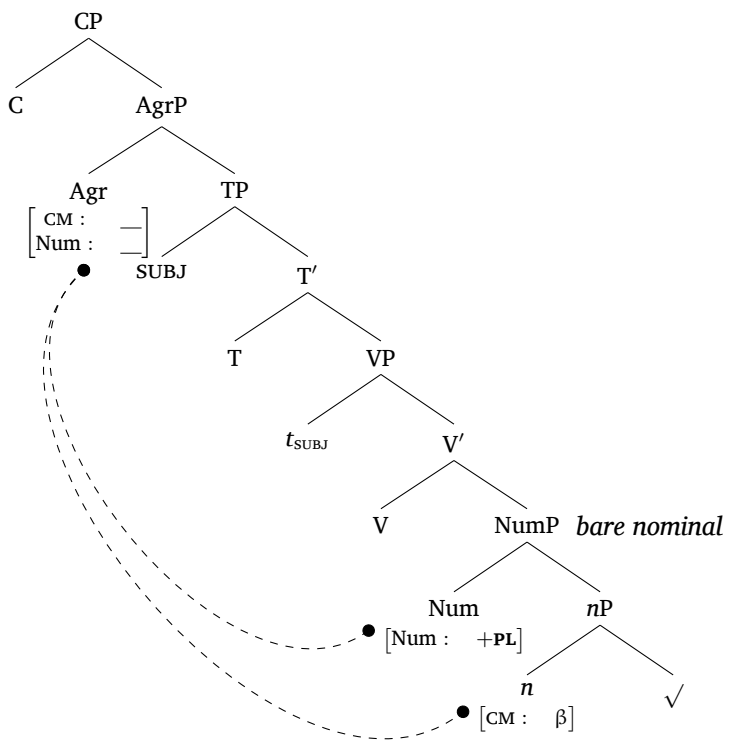
(34) a. Samba tej-na palanteer [b-u tilim] b-i. /
Samba close-NA.3SG window [CM.SG-COMP dirty] CM.SG-DEF /
*y-i
*CM.PL-DEF
'Samba closed the window that is dirty.'

b. Samba tej-na palanteer [y-u tilim] y-i /
Samba close-NA.3SG window [CM.PL-COMP dirty] CM.PL-DEF /
*b-i.
*CM.SG-DEF
'Samba closed the windows that are dirty.'

E. BN modified by relative and the NLC

- (35) is a partial derivation where the BN is still inside the CP – recall that I am assuming a raising analysis for relative clauses in Wolof, following Torrence (2013).
  - Likewise, I follow Torrence in assuming that the class marker that appears affixed to the relative complementizer is the result of Agree with the head of the relative clause.
  - The class marker is represented as an Agr head that probes for both number and class.
- The Agr below CP probes down to value its [NUMBER] and [CM] features.

(35)



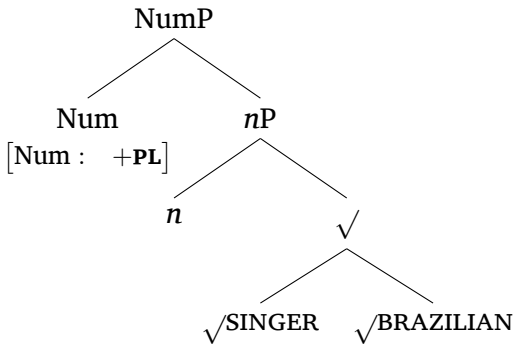
- It encounters the matching features in the BN.
- In this structure, even though the BN itself does not have a [+NUMBER] licenser (i.e. a matching probe that Agrees with it), the Agr at the relative CP level does the job.
- The NLC (30) in this case can be complied with, hence why a BN can have a plural interpretation in this case.[7]

[7] (32) is a simplified diagram, where *v*P and Ā-movement of the BN object to the phase edge are omitted for visual simplicity.

F. BN modified by plain modifier and the NLC

- Recall: plain modifiers are assumed to be the member of a compound without any morphoological number.
- As such, there is no probe that Agrees with the number feature in NumP.

(36) *BN modified by plain modifier: NLC violated*



G. **Prediction**

- According to the analysis put forth here, BNs can in principle combine with a singular or a plural NumP.
- However, the latter option only leads to a convergent derivation where some nominal-internal number probe Agrees with [+PLURAL], in compliance with the NLC (30).
- In the absence of such a probe, only a derivation with a singular BN converges, as the NLC does is stipulated not to apply to [+SINGULAR].
- A prediction that emerges from this analysis is that a sentence containing a BN may be completely ungrammatical, lacking even a singular interpretation.
- This would be the case for nouns that are themselves plural, above and beyond the specification of NumP. A case in point would be pluralia tantum nouns.[8]
- Babou & Loporcaro (2016) observe that *jooy* 'weeping' (37) and *teggin* 'respect' (not shown) are instances of such a noun in Wolof.

(37) a. Jooy y-i metti-na-ñu lool.
weeping CM.PL-DEF hard-NA-3PL much
'The weeping is so hard.'

b. * Jooy b-i metti-na lool.
weeping CM.SG-DEF hard-NA.3SG much
Int.: 'The weeping is so hard.'

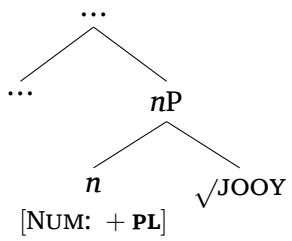
c. Gis-na-a jooy y-i.
see-NA-1SG weeping CM.PL-DEF
'I saw the weepings.'

d. * Gis-na-a jooy b-i.
see-NA-1SG weeping CM.SG-DEF
Int.: 'I saw the weeping.'

[8] A few people brought up the relevance of pluralia tantum nouns to me, including D. Pesetsky, O. Preminger, and S. Zompì.

- Inspired by Harbour (2011), I encode the plurality requirement of pluralia tantum nouns at the categorizer *n*:

(38)



  - Recall: I assume that root-specific properties are encoded at the categorizer level.
  - Under the assumption that whether or not a noun is pluralia tantum noun is also an idiosyncratic property, (38) is aligned with this assumption.
- If (38) is the correct representation for *jooy* and *teggin*, the prediction is that a BN pluralia tantum is going to be ungrammatical, since there is no nominal-internal probe to Agree with [+PLURAL].
- The BN cannot "fall back" to a singular interpretation due to the pluralility encoded in at the *n* level.
- The prediction is borne out by facts:

(39) * Gis-na-a **jooy**.
see-NA-1SG weeping
Lit.: 'I saw weeping.'

5 Summary and open issues

A. Summary

- We investigated BNs in Wolof, which, when unmodified, are exclusively singular, unlike their number neutral counterparts in other languages.
- More precisely, I tried to provide an analysis to the following generalization:

(40) BNs in Wolof are singular, unless there is some nominal-internal plural morphology.

- I proposed an analysis that extended Béjar & Rezac's (2003; 2009) PLC to [+PLURAL].
- Unmodified BNs are singular because this is the only possible convergent derivation.
- If the nominal has a number probe, the NLC can be satisfied, allowing the BN to receive a plural construal.
  - This number probe is exponed as relative complementizer or possessum agreement.
- If correct, this analysis provides further empirical support for the proposal that interpretable features play a role in licensing a nominal (Kalin, 2017, 2019).

B. No Number Case Constraint

- A concern engendered by the analysis is the fact that it has been argued by Nevins (2011) and Preminger (2011, 2014) number and person features have different behavior.

- Nevins (see also Nevins & Savescu 2010) remarks that there is no number equivalent of the PCC (i.e. a Number Case Constraint), while Preminger demonstrates that number and person feature have different effects in the Agent-Focus constructions found in Kichean languages.
- These observations cast doubt on the NLC.

A Two types of possessive nominals

A. In Wolof, there are at least two types of possessive nominals.

- In (41), the possessive determiner *sama* 'my' is used. It precedes the possessum *xaj* 'dog'.
- In (42), the genitive suffix *u* is used. It is affixed to the possessum *muus* 'cat', which precedes the possessor *Mareem*.

(41) *Possessive determiner*

Gis-na-a **sama** **xaj** **b-i** ci baayal b-i.
see-NA-1SG POSS.1SG dog CM.SG-DEF PREP park CM.SG-DEF
'I saw my dog in the park.'

(42) *Genitive suffix*

Toogakat b-i gis-na **a-y** **muus-u** **Mareem**.
cook CM.SG-DEF see-NA.3SG INDEF.CM.PL cat-GEN Mareem
'The cook saw some cats of Mareem's.'

A.1 Possessive with possessum-sensitive suffix

A. Basics of possessive determiners

- *Sama* is a 1st person possessive determiner that is linearly followed by a possessum.
- **The possessive determiner is sensitive to the number of the possessum.**

(43) a. sama **nit**
POSS.1SG person
'my friend'

b. sama-y **nit**
POSS.1SG-PL person
'my friends'

  - In (43a) and (43b), the form of the possessive determiner remains the same (*sama* 'my') and so does the possessum *nit* 'person'.
  - However, a plural interpretation for the possessum arises in (43b), where there is the addition of the affix *-y*.
- If the possessum is a full nominal, the determiner and the posessum-sensitive morphology must match in number.

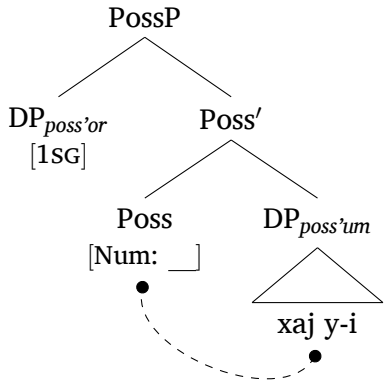
(44) a. Gis-na-a sama xaj b-i ci baayal b-i.
see-NA-1SG POSS.1SG dog CM.SG-DEF PREP park CM.SG-DEF
'I saw my dog in the garden.'

b. * Gis-na-a sama-y xaj b-i ci baayal b-i.
see-NA-1SG POSS.1SG-PL dog CM.SG-DEF PREP park CM.SG-DEF
Int.: 'I saw the.SG dog of mine.PL in the garden.'

c. Gis-na-a sama-y xaj y-i ci baayal b-i.
see-NA-1SG POSS.1SG-PL dog CM.PL-DEF PREP park CM.SG-DEF
'I saw my dogs in the garden.'

- Structure assumed
  - (45) represents *sama-y xaj y-i* 'POSS.1SG-PL dog CM.PL-DEF (*my dogs*)).
  - The head of PossP is proposed to probe for a number feature. This feature is valued by the possessum, which is in its c-command domain.

(45)



- Number interpretation: BNs inside this type of possessive nominal have a singular interpretation, unless the plural possessum-sensitive *-y* occurs.[9]

(46) *Collective predicate*

Dajeele-na-a sama-y **muus** ci tool b-i.
gather-NA-1SG POSS.1SG-PL cat PREP garden CM.SG-DEF
'I gathered some cats of mine in the garden.'

(47) *Discourse anaphora*

Wën-na-a sama-y **xaj** Mareem. Bëgg-na-a *ko / leen.
show-NA-1SG POSS.1SG-PL dog Mareem likeNA-1SG *OBJ.SG / OBJ.PL
'I showed Mareem some dogs of mine. I like *him/them.'

(48) *Plural reflexive*

Jàngalekat y-i sang-aloo-na-ñu seen-i **ndonggo darra** seen
teacher CM.PL-DEF wash-CAUS-NA-3PL POSS.3PL student POSS.3PL
bopp.
head
'The teachers made some students of theirs wash themselves.'

[9] Again, singular (*-y*-less data) not shown because of time constraints. See Fong (2020).

A.2 Genitive possessive

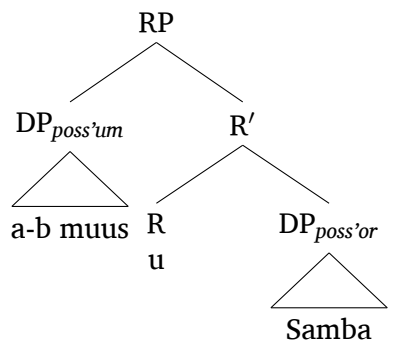
A. We can now turn to the genitive possessive nominal.

(49) Gis-na-a **doom**-u Roxaya.
see-NA-1SG child-GEN Roxaya
'I saw a child of Roxaya's.'

B. Structure assumed

- (50) represents *a-b muus-u Samba* 'INDEF-CM.SG cat-GEN Samba (*a cat of Samba's*).
- For concreteness, I assume Den Dikken's (2006) Relator Phrase, whose head here is realized by the genitive morpheme *-u*.
- Contrary to the possessive in (45) examined above, in the genitive (50), there is no probe for number.

(50)



C. Number interpretation: in the genitive possessive construction, there is no morpheme sensitive to number. In that case, only a singular reading is available.

(51) *Collective predicate*

Roxaya boole-na **xaj**-u Kadeer *(ak xaj-u Kumba).
Roxaya put.together-NA.3SG dog-GEN Kadeer *(CONJ dog-GEN Kumba)
'Roxaya put together Kadeer's dog *(with Kumba's dog).'

(52) *Discourse anaphora*

Gis-na-a **muus**-u Kadeer ci tool b-i. Bëgg-na-a ko / *leen.
see-NA-1SG cat-GEN Kadeer PREP garden CM.SG-DEF like-NA-1SG OBJ.3SG / *OBJ.3PL
'I saw a cat of Kadeer's in the garden. I like him;her/*them.'

(53) *Plural reflexive*

Isaa sang-oloo-na **xaj**-u Kadeer bopp=am / *seen bopp.
Isaa wash-CAUS-NA.3SG dog-GEN Kadeer head=POSS.3SG / *POSS.3PL head
'Isaa made a dog of Kadeer's wash himself/themselves.'

D. Summary

- Possessive determiners are sensitive to the number of the possessum; agreement with a plural possessum is exponed by the prefix *-y*.
- The genitive affix, on the other hand, does not display any number morphology. Correspondingly, no plural interpretation is possible.
- Combined, the modifier and possessive data show a correlation between the occurrence of plural morphology within the nominal and the availability of a plural interpretation in a BN.

(54)

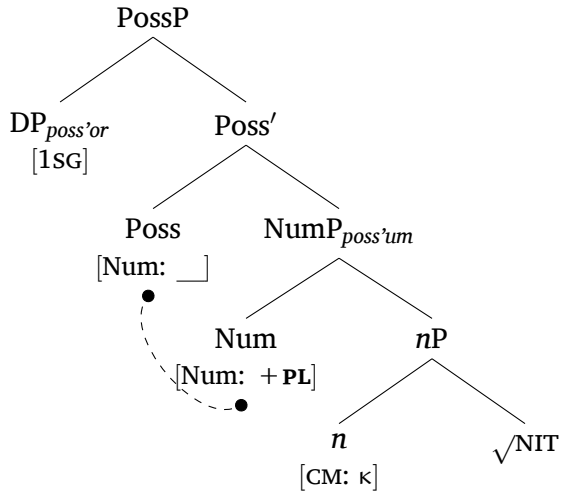
	Plural exponent available	Plural interpretation possible
Plural relative clause	yes	yes
Plain modifier	no	no
Possessive determiner	yes	yes
Genitive	no	no

A.3 NLC analysis of BNs embedded within possessive constructions

A. Possessive nominals and the NLC

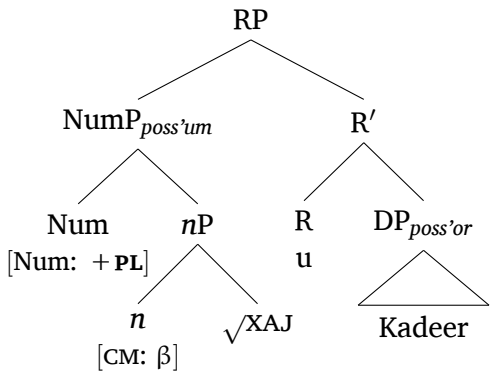
- Licensing of a plural number feature by Agree is possible in the possessive construction, if the plural possessum-sensitive *y* is the exponent of Agree.
- The derivation of *sama-y nit* 'POSS.1SG-PL person/friend' would be as in (36), where the head of PossP probes for a number feature in the possessum.
- If the BN there is plural, the NLC (30) can be satisfied, hence why a derivation converges where the BN has a plural construal.

(55) *Possessive determiner: NLC satisfied*



B. Genitive possessives and the NLC

(56) * *Genitive possessive: NLC violated*



- There is no probe to Agree with the [+PLURAL] number of the BN, so, again, only a derivation with a singular NumP converges.

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