

This appendix contains additional data from possessive nominals in Wolof that indicate that bare nominals in the language can have a plural interpretation as long as nominal morphology is added to the nominal that expones [PLURAL] (section 1). Additionally, data is shown that indicates variation in one of the strategies employed in Wolof to express possession and which is also consistent with the proposal put forth in the paper (section 2).

1 Number interpretation in two types of possessive nominals

In Wolof, there are two types of possessive nominals. In (1a), the possessive determiner *sama* ‘my’ is used. It precedes the possessum *xaj* ‘dog’. A definite determiner *bi* ‘the’ can be part of the same nominal. In (1b), the linker suffix *-u* is used. It is affixed to the possessum *muus* ‘cat’, which precedes the possessor *Mareem*.

(1) a. *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 garden.’

b. *Linker suffix*

Toogakat b-i gis-na a-y muus-u Mareem (...).
cook CM.SG-DEF see-NA.3SG INDEF-CM.PL cat-LNK Mareem
‘The cook saw some cats of Mareem’s.’

As we will see below, these constructions differ in whether or not they contain some number morphology. When a BN is used in these possessive constructions, its behavior resembles that of plural relative clauses and plain modifiers, depending on whether or not the possessive construction in question contains number morphology.

Starting with possessive determiners, the possessum can either be a full nominal (1a) or a BN (2). Furthermore, the morphology affixed to the possessive determiner is sensitive to the number properties of the possessum that linearly follows it. In (1a), for instance, the possessive determiner *sama* ‘POSS.1SG’ is singular, since the possessum *xaj b-i* ‘dog CM.SG-DEF’ is singular. In (2a) and (2b), 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 (2b), where there is the addition of the plural suffix *-y* (allomorph: *-i* when the possessive determiner ends in a consonant).

(2) a. sama **nit**

POSS.1SG person
‘my friend’ (Literally: ‘my person’)

b. sama-y **nit**

POSS.1SG-PL person
‘my friends’ (Literally: ‘my people’)

The possessive determiners in Wolof are listed below:^{1 2}

(3)	Poss'or	Singular poss'um	Translation	Plural poss'um	Translation
	1SG	sama xarit	'my friend'	sama-y xarit	'my friends'
	2SG	sa xarit	'your friend'	sa-y xarit	'your friends'
	3SG	xarit=am	'his/her friend'	xarit=am	'his/her friends'
	1PL	suñu xarit	'our friend'	suñu-y xarit	'our friends'
	2PL	seen xarit	'your friend'	seen-i xarit	'your friends'
	3PL	seen xarit	'their friend'	seen-i xarit	'their friends'

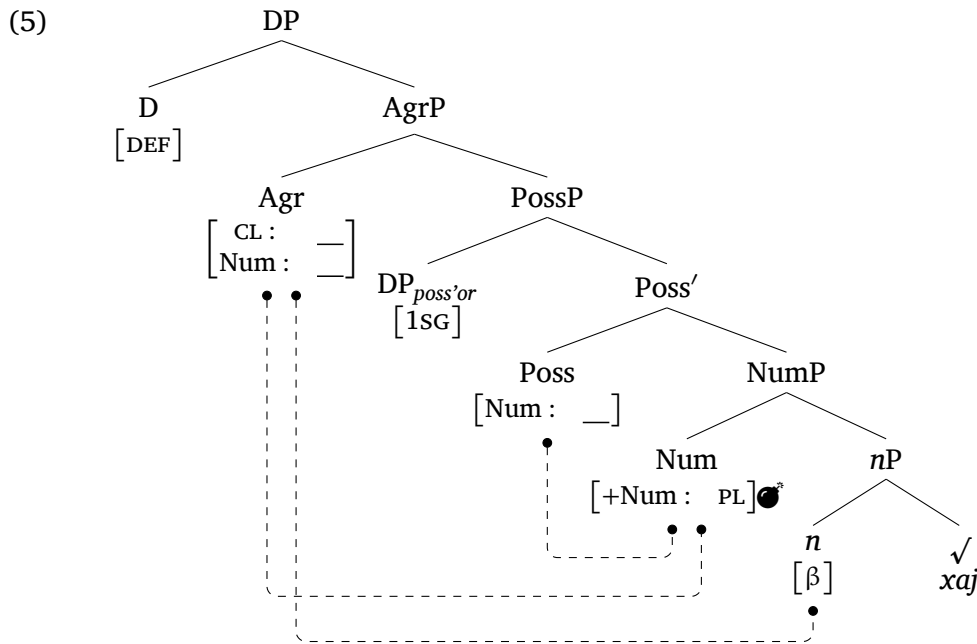
Additional data illustrating the behavior of the possessive determiner are below. (4a), (4b), and (4c) demonstrate that the number of the definite determiner (*b-i*) and that of the possessive determiner must match. (4d) shows that the plural class marker for *nit* 'person' can be *y* or *ñ*. (4e) shows that the number suffix in the possessive determiner remains *y* nonetheless, suggesting that the class marker *y* and the possessive determiner *y* are different morphemes, albeit homophonous ones.

- (4) 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
 Intended: '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.'
- d. Gis-na-a { nit y-i / nit ñ-i } ci Boston.
 see-NA-1SG person CM.PL-DEF / person CM.PL-DEF PREP Boston
 'I saw the people in Boston.'
- e. Gis-na-a sama-y nit { y-i / ñ-i } ci Boston
 see-NA-1SG POSS.1SG-PL person CM.PL-DEF / CM.PL-DEF PREP Boston
 démb.
 yesterday
 'I met the people in Boston yesterday.'

I assume that this type of possessive nominal has the structure in (5), which represents *sama-y xaj y-i* 'POSS.1SG-PL dog CM.PL-DEF' (the head-finality of the definite determiner *y-i* is abstracted away). In this possessive nominal, 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. If the possessum is singular, the exponent of Poss is phonologically null. If the possessum is plural, the head of PossP is exponed as *-y*.

¹ In principle, it could be the case that *-y* is not an instance of agreement of a plural possessum, but rather the last segment of an allomorph of the possessive determiner, the choice of which is conditioned by adjacency with a plural possessum. The fact that *y* occurs at the end of all possessive determiners makes this alternative analysis methodologically undesirable, since it would render the occurrence of *y* across all plural forms accidental. For more on the distinction between allomorphy and agreement, see Weisser (2019).

² The 3SG possessive determiner is suffixal and does not seem to display agreement with the possessum.



I assume that the determiner that heads the entire possessive construction takes scope over it. Linear order evidence for this assumption is provided by the fact that the indefinite determiner *a-b* ‘INDEF-CM.SG’ must be placed to the left of the possessive *sama* ‘POSS.1SG’; it cannot immediately precede the possessum (*muus* ‘cat’).³

(6) (S. Ndao, p.c.)

{ a-b }	sama	{ *a-b }	muus
INDEF-CM.SG	POSS.1SG	*INDEF-CM.SG	cat
‘a cat of mine’			

Additionally, I assume in (5) that the possessum projects its AgrP within PossP. Agr can then probe downwards for number and class (and eventually be exponed with a class marker). Agr then affixes to the determiner.⁴ Agr is placed below PossP because otherwise, the class marker would reflect the features of the possessor, which is contrary to fact.

With this background in mind, let us consider what happens when the possessum is a BN. (7) shows that, in this scenario, the possessive construction has an indefinite interpretation, hence it can be used in an existential construction.

(7) Am-na sama **butéel** ci waañ w-i.
 have-NA.3SG POSS.1SG bottle PREP kitchen CM.SG-DEF
 ‘There is a bottle of mine in the kitchen.’

Furthermore, BNs inside this type of possessive nominal have a singular interpretation, unless the plural possessum-sensitive *-y* occurs. In the data to follow, the (a) examples illustrate the behavior of possessive constructions where the determiner is suffixed with the possessum-sensitive *-y* morpheme, while the (b) examples illustrate the behavior of possessives without *-y*.

³ Definite determiners would not be helpful in this regards, as they are always post-nominal.

⁴ It is possible that the latter operation is post-syntactic (Harizanov & Gribanova 2019), as it skips over intermediate heads.

(8) *Collective predicate*

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

(9) *Discourse anaphora*

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

(10) *Interrogative pronoun in sluicing*

- a. Mareem jàng-na sama-y **téere**, waaye xa-w-ma {
Mareem read-NA.3SG POSS.1SG-PL book but know-NEG-1SG
*b-an la / y-an la }.
*CM.SG-which COP.3SG / CM.PL-which COP.3SG
'Mareem read some books of mine, but I don't know which one/which ones.'
- b. Mareem jàng-na sama **téere**, waaye xa-w-ma {
Mareem read-NA.3SG POSS.1SG book but know-NEG-1SG
b-an la / *y-an la }.
CM.SG-which COP.3SG / *CM.PL-which COP.3SG
'Mareem read a book of mine, but I don't know which one/which ones.'

(11) *Binding of reciprocal*

- a. Desin-ante-loo-na-a { *sama / sama-y } **doom** seen
draw-RECP-CAUS-NA-1SG *POSS.1SG / POSS.1SG-PL child POSS.3PL
bopp.
head
'I made some children of mine draw each other.'
- b. Wonale-na-a sama-y **ndoongo.daara** ñu xam-ante.
introduce-NA-1SG POSS.1SG-PL student 3PL know-RECP
'I introduced some students of mine to each other.'
- c. Wonale-na-a sama **ndoongo.daara** ?*(ak **ndoongo.daara**
introduce-NA-1SG POSS.1SG student ?*((with student
Kadeer) ñu xam-ante.
Kadeer) 3PL know-RECP
'I introduced a student of mine and a student of Kadeer's to each other.'

(12) *Binding of plural reflexive*

Jàngalekat y-i sang-aloo-na-ñu { *seen / seen-i }
teacher CM.PL-DEF wash-CAUS-NA-3PL *POSS.3SG / POSS.3PL }
ndoongo.daara seen bopp.
student POSS.3PL head

‘The teachers made some students of theirs wash themselves.’

(13) ‘How many’ follow-up

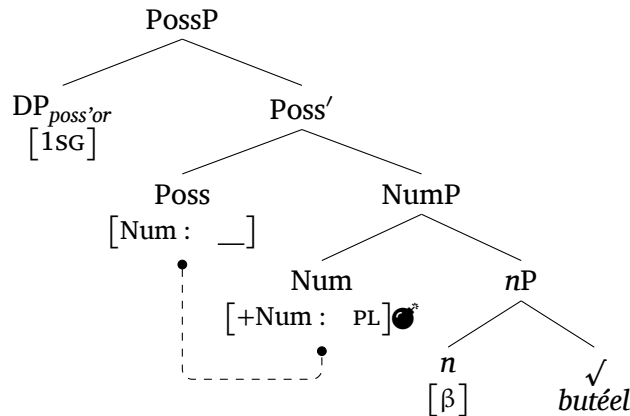
Maymuna ak Mareem jënd-na-ñu { *sama / sama-y } **téere**, waaye
 Maymuna with Mareem buy-NA-3PL *POSS.1SG / POSS.1SG-PL book but
 xa-w-ma ñaata lën jënd.
 know-NEG-1SG how.many COP.3PL buy
 ‘Maymuna and Mareem bought some books of mine, but I do not know how many.’

(14) ‘All of them’ follow-up

Sama muus toj-na { #sama / sama-y } **ndap**. Bëgg-na-a
 POSS.1SG cat break-NA.3SG #POSS.1SG / POSS.1SG-PL plate like-NA-1SG
 y-ëpp.
 CM.PL-every
 ‘My cat broke some plates of mine. I liked all of them.’

To sum up, BNs can occur in a construction that features a possessive determiner which is sensitive to the number of the possessum they combine with. If a plural agreement suffix *-y* occurs, a BN possessum receives a plural interpretation. In the absence of that morphology, the BN retains its exclusively singular interpretation. The defusal of the [+Num : PL] feature in a BN possessum is diagrammed below:

(15) BN possessum: [+PL] defused by Agree with Poss, allowing the derivation to converge



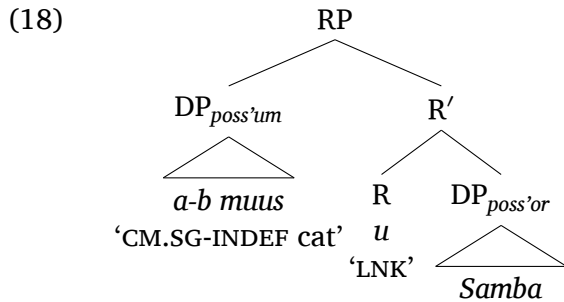
We now turn to the linker possessive nominal, illustrated below.

(16) Gis-na-a **doom-u** Roxaya.
 see-NA-1SG child-LNK Roxaya
 ‘I saw a child of Roxaya’s.’

Again, I take the possessum in this construction to be a BN because the latter alternates with a full nominal, as we can see in the pairs in (17). In (17e), it is particularly clear that what the definite determiner *b-i* combines with is the noun to which the linker is suffixed (i.e. *muus* ‘cat’), since the preceding proper name (*Roxaya*) cannot merge with it, as evidenced by (17d).

- (17) a. A-b muus-u Samba lekk-na céeb.
 INDEF-CM.SG cat-LNK Samba eat-NA.3SG rice
 ‘A cat of Samba’s ate rice.’
- b. A-y muus-u Samba lekk-na-ñu céeb.
 INDEF-CM.PL cat-LNK Samba eat NA-3PL rice
 ‘Some cats of Samba’s ate rice.’
- c. Gis-na-a a-y doom-u Roxaya.
 see-NA-1SG INDEF-CM.PL child-LNK Roxaya
 ‘I saw some children of Roxaya’s.’
- d. Bëgg-na-ñu Roxaya (*b-i).
 like-NA-1PL Roxaya (*CM.SG-DEF)
 ‘We like Roxaya.’
- e. Bëgg-na-ñu muus-u Roxaya b-i.
 like-NA-1PL cat-LNK Roxaya CM.SG-DEF
 ‘We like Roxaya’s cat.’

I assume the structure in (15) for linker possessives, illustrated with *a-b muus-u Samba* ‘INDEF-CM.SG cat-LNK Samba’ (*a cat of Samba’s*). For concreteness, I assume Den Dikken’s (2006) Relator Phrase, whose head here is realized by the linker morpheme *-u*. Contrary to the possessive in (5) examined above, in the linker (15), there is no probe for number.



When the possessum to which it is attached is a BN, it also receives an indefinite interpretation.

- (19) Am-na muus-u Kadeer ci bayaal b-i.
 have-NA.3SG cat-LNK Kadeer PREP park CM.SG-DEF
 ‘There is a cat of Kadeer’s in the park.’

As just mentioned, in the linker possessive construction, there is no morpheme sensitive to number. In that case, only a singular reading is available. This is demonstrated by the plural-sensitive diagnostics employed so far.

(20) *Collective predicate*

- a. Roxaya boole-na a-y xaj-u Kadeer.
 Roxaya put.together-NA.3SG INDEF-CM.PL dog-LNK Kadeer
 ‘Roxaya gathered some of Kadeer’s dogs.’
- b. Roxaya boole-na xaj-u Kadeer *(ak xaj-u Kumba).
 Roxaya put.together-NA.3SG dog-LNK Kadeer *(with dog-LNK Kumba)
 ‘Roxaya put together Kadeer’s dog *(with Kumba’s dog).’

(21) *Discourse anaphora*

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

(22) *Interrogative pronoun in sluicing*

- a. Toogakat b-i gis-na a-y muus-u Mareem, waaye
cook CM.SG-DEF see-NA.3SG INDEF.CM.PL cat-LNK Mareem but
xa-w-ma { *b-an la / y-an la }.
know-NEG-1SG *CM.SG-which COP.3SG / CM.PL-which COP.3SG
'The cook saw some cats of Mareem's, but I don't know which.'
- b. Toogakat b-i gis-na **muus**-u Mareem, waaye xa-w-ma
cook CM.SG-DEF see-NA.3SG cat-LNK Mareem but know-NEG-1SG
{ b-an la / *y-an la }.
CM.SG-which COP.3SG / *CM.PL-which COP.3SG
'The cook saw a cat of Mareem's, but I don't know which.'

(23) *Binding of reciprocal*

- * Roxaya wonale-na **jàngalekat**-u Mareem ñu xam-ante.
Roxaya introduce-NA.3SG teacher-LNK Mareem 3PL know-RECP
Literally: 'Roxaya introduced a teacher of Mareem's to each other.'

(24) *Binding of plural reflexive*

- a. Isaa sang-u-loo-na a-y xaj-u Kadeer seen bopp.
Isaa wash-CAUS-NA.3SG INDEF-CM.SG dog-LNK Kadeer POSS.3PL head
'Isaa made some dogs of Kadeer's wash themselves.'
- b. Isaa sang-u-loo-na **xaj**-u Kadeer { bopp=am / *seen
Isaa wash-CAUS-NA.3SG dog-LNK Kadeer head=POSS.3SG / *POSS.3PL
bopp }.
head
'Isaa made a dog of Kadeer's wash himself/themselves.'

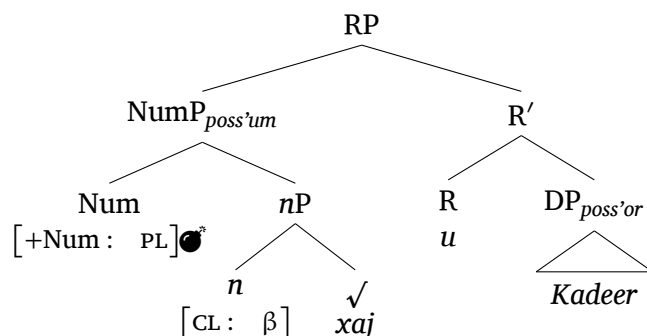
(25) *'All of them' follow-up*

Sama muus toj-na **ndap**-u Kadeer. # Bëgg-na-a y-ëpp.
POSS.1SG cat break-NA.3SG plate-LNK Kadeer # like-NA-1SG CM.PL-every
Literally: 'My cat broke Kadeer's plate. I liked all of them.'

These data indicate that, unlike the possessive determiner, which has number morphology, the linker possessive cannot license a plural interpretation for a BN. However, below I will discuss a difference found among the speakers consulted regarding these properties. As we will see there, the behavior of that variant of the linker morpheme behaves as predicted by the analysis to be proposed.

The numberless linker possessive construction in (26) is outlined in (20b), which represents *xaj-u Kadeer* 'dog-LNK Kadeer'.

(26) *BN as possessum of linker possessive: [+PL] not defused, causing derivation to crash*



There is no probe to Agree with the [+Num : PL] number of the BN, causing the derivation to crash due to the failure of defusing a derivational time-bomb. As a consequence, only a singular interpretation is available (because this is the only convergent derivation).

2 A note on variation in the linker

One of the speakers consulted allowed for two different allomorphs of the linker suffix, namely, *-u* and *-i*, such that the latter is a plural version of the former. For convenience, I call the dialect where the linker occurs in the invariable form ‘Dialect A’ and the dialect where both forms *-u* and *-i* can be found ‘Dialect B’.⁵ While I do not have the data for all plurality diagnostics considered in this paper, the difference between these allomorphs can be seen in the discourse anaphors paradigm in (27), where the number of the pronoun tracks the number of the possessum the linker is suffixed to. More precisely, in (27a), the linker attached to the possessum *kër* ‘house’ is the singular *-u*. The determiner that heads this nominal is also in the singular (*g-i*). Correspondingly, the pronoun that refers back to this possessive nominal is the singular *ko*. In contrast, in (27b), the plural allomorph *-i* is used. Now, the determiner of the overall nominal bears the plural class marker *y* and the pronoun is also plural (*leen*).

(27) *Wolof Dialect B: form of the linker and discourse anaphora*

- a. Liggéeykat b-i tabax-na kër-u Mareem g-i.
 worker CM.SG-DEF build-NA.3SG house-LNK.SG Mareem CM.SG-DEF
 Bëgg-na-a { ko / *leen }.
 like-NA-1SG OBJ.3SG / *OBJ.3PL
 ‘The worker built Mareem’s house. I like it/them.’
- b. Liggéeykat b-i tabax-na kër-i Mareem y-i.
 worker CM.SG-DEF build-NA.3SG house-LNK.PL Mareem CM.PL-DEF
 Bëgg-na-a { *ko / leen }.
 like-NA-1SG *OBJ.3SG / OBJ.3PL
 ‘The worker built Mareem’s houses. I like it/them.’

⁵ No prominence or preference is implied in choice of these terms. The speaker of Dialect B consulted was a male on their twenties from Dakar

Converging evidence that the *-u/-i* alternation in Dialect B is conditioned by the number of the possessum is furnished by the possibility of using the plural *-i* linker in a nominal that is the complement to a collective predicate (*boole* ‘gather’).⁶

(28) *Wolof Dialect B: form of the linker and collective predicates*

Liggéeykat b-i boole-na taabal-i Mareem y-i.
 worker CM.SG-DEF put.together-NA.3SG table-LNK.PL Mareem CM.PL-DEF
 ‘The worker gathered Mareem’s tables.’

In the analysis put forth in this paper, the interpretable feature [+Num : PL] must enter an Agree relation in order to be defused. If *-i* in Dialect B is the realization of an Agree operation that targets the number of the possessum, we would predict that a BN to which *-i* is suffixed to behave as a plural nominal. This is indeed the case, as demonstrated by the interrogative pronouns in (29). In (29a), to the possessum BN *xaj* ‘dog’ is suffixed the singular linker *-u* and the interrogative pronoun must be singular. On the other hand, if the linker suffixed to *xaj* is the plural *-i*, the pronoun must be plural too (cf. (22b) above, a data point from the Wolof dialect where only the invariable *-u* is present and the interrogative pronoun used must be singular).

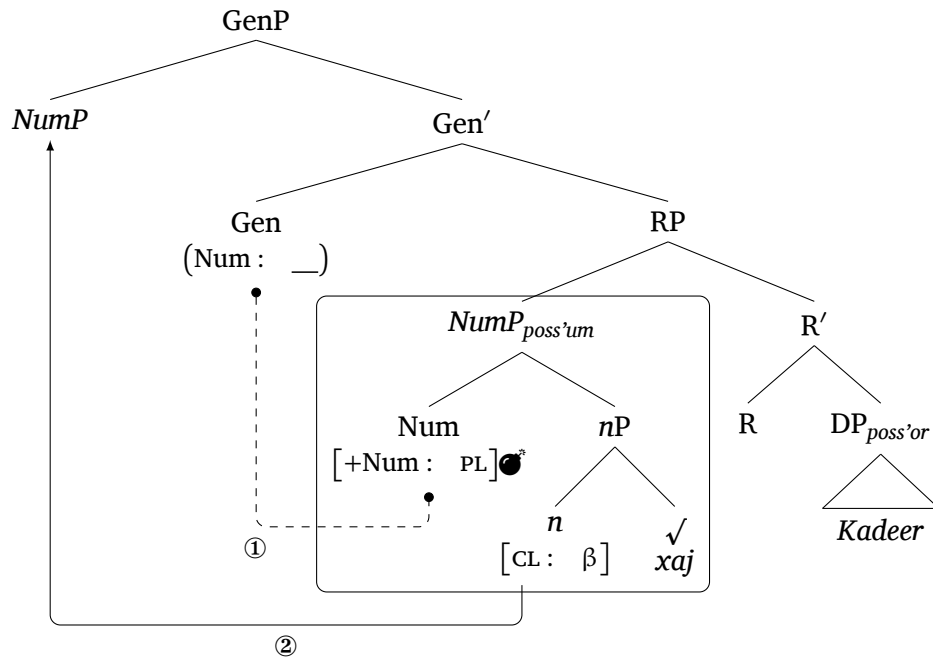
(29) *Wolof Dialect B: form of the linker and interrogative pronouns*

- a. Roxaya bëgg-na **xaj-u** Kadeer, waaye xa-w-ma {
 Roxaya like-NA.3SG dog-LNK.SG Kadeer but know-NEG-1SG
 b-an la / *y-an la. }
 CM.SG-which COP.3SG / *CM.PL-which COP.3SG
 ‘Roxaya likes a dog of Kadeer’s, but I don’t know which one/which ones.’
- b. Roxaya bëgg-na **xaj-i** Kadeer, waaye xa-w-ma {
 Roxaya like-NA.3SG dog-LNK.PL Kadeer but know-NEG-1SG
 *b-an la / y-an la }.
 *CM.SG-which COP.3SG / CM.PL-which COP.3SG
 ‘Roxaya likes some dogs of Kadeer’s, but I don’t know which ones.’

However, the structure and derivation I assumed above for linker possessive constructions in (26) is not compatible with this state-of-affairs, given that the possessum is outside of the c-command domain of the linker (here, the head of the Relator Phrase). In order to correct this analysis-internal issue, I propose the amendment in (30), representing *xaj-i Kadeer* ‘some dogs of Kadeer’s’.

⁶ Regrettably, I did not elicit a version of (28) where the possessum is singular (in that case, the class marker in the definite determiner would be *b*). This example is expected to be ungrammatical.

(30) *Linker possessive: amended structure*



In (30), the Relator Phrase (RP) is now embedded in another layer of functional structure, which I dub ‘GenP’ for convenience. It is the head of the latter that is now expounded as *-u* in Dialect A or as *-u/-i* in Dialect B. This head may also have a number feature to be valued, depending on the dialect (with the optionality being denoted with parentheses). In Dialect A, the linker is invariable and can only combine with BNs with a singular interpretation. In keeping with the analysis advanced in this paper, I encode these properties as the absence of a number probe [Num : __] in Gen. Correspondingly, in Dialect B, where the linker can be realized as *-u* or *-i* depending the number interpretation of the possessum it is affixed to, as described above. In both Dialects, Gen triggers the movement of the possessum base-generated at Spec-RP to its own specifier position.⁷

For completeness, I assume the following Vocabulary Items for the linker in each dialect considered here:

(31) *Linker Vocabulary Item: Dialect A*

[GEN] ↔ /-u/

(32) *Linker Vocabulary Item: Dialect B*

a. [GEN] ↔ /-u/

b. [GEN, PL] ↔ /-i/

In this appendix, we briefly considered a dialectal variation observed in the morphology of the linker. This variation is correlated with the number interpretation the possessum the linker is suffixed to. If the dialect where this suffix is sensitive to number, a BN possessum can receive a plural interpretation. In the present analysis, this possibility can be modeled in terms of an Agree operation that allows an interpretable plural feature in the BN to be licensed.

⁷ I abstract away from anti-locality (cf. Erlewine 2016; 2020) issues here.

References

- Den Dikken, Marcel. 2006. *Relators and linkers: The syntax of predication, predicate inversion, and copulas*. MIT press. DOI: <https://doi.org/10.7551/mitpress/5873.001.0001>.
- Erlewine, Michael Yoshitaka. 2016. Anti-locality and optimality in Kaqchikel agent focus. *Natural Language & Linguistic Theory* 34(2). 429–479. DOI: <https://doi.org/10.1007/s11049-015-9310-z>.
- Erlewine, Michael Yoshitaka. 2020. Anti-locality and subject extraction. *Glossa: a journal of general linguistics* 5(1). DOI: <https://doi.org/10.5334/gjgl.1079>.
- Harizanov, Boris & Gribanova, Vera. 2019. Whither head movement? *Natural Language & Linguistic Theory* 37(2). 461–522. DOI: <https://doi.org/10.1007/s11049-018-9420-5>.
- Weisser, Philipp. 2019. Telling allomorphy from agreement. *Glossa: a journal of general linguistics* 4(1). DOI: <https://doi.org/10.5334/gjgl.803>.