A dependent case analysis of pseudo noun incorporation in Wolof[*]

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Abstract

Bare nominals in Wolof can occur in the object position, though not in the subject position of a finite verb. Furthermore, they must be adjacent to the transitive verb that subcategorizes for them. These are properties usually attributed to Pseudo Noun Incorporation. However, there are two circumstances under which the requirement to be adjacent to the verb can be obviated: either a non-core argument is introduced between the subject and the PNI-ed object or the latter is Ā-moved. While the introduction of an additional argument and Ā-movement are disparate phenomena, a dependent case analysis of nominal licensing (Branan, to appear) can account for why they both allow a PNI-ed object to not be adjacent to the verb in Wolof. Branan argues, following Levin (2015), that all nominals must be licensed with case, with case assignment being calculated in terms of dependent case (Marantz, 2000). In the impossibility of assigning case to a nominal, a last resort licensing strategy arises, namely, adjacency with the verb. Under the proposal that Branan makes about domains of case assignment and the position of case competitors in the sentential spine, bare nominal objects in Wolof cannot be licensed with case, hence they must be adjacent to the verb. However, the introduction of a non-core argument provides a case competitor to a PNI-ed object, allowing it to do away with licensing via verb adjacency. Likewise, Ā-moving a bare nominal object brings it close to the subject, which can transformationally act as a case competitor. I argue thus that a dependent case theory of PNI can provide a uniform analysis of the distribution of bare nominals in Wolof. In contrast, I show that a linearization-based analysis of PNI (Baker, 2014b) falls short of this goal.

Keywords: Wolof; pseudo noun incorporation; bare nominal; case licensing.

1 Introduction

'Pseudo noun incorporation' (PNI) designates a construction where an object appears adjacent to the verb that subcategorizes it. Prima facie, PNI seems identical to noun incorporation. However,

unlike what happens in the latter, in PNI, the object is not a nominal head, but rather an internally complex nominal phrase. This can be demonstrated, for instance, by the fact that a PNI-ed nominal can be modified by an adjective. (On pseudo noun incorporation, see the collection of papers in Borik & Gehrke 2015; see also Levin 2015 and references therein.)

PNI can be illustrated by Niuean (Massam, 2001). (1a) is a baseline example, where the subject of the transitive verb is marked with ergative case and the object, absolutive case. In this sentence, the object carries not only case, but also number morphology. Furthermore, it is separated from the sentence-initial verb by the subject and by an adverb (*tūmau* 'always'). (1b) is a PNI example. In this sentence, the object appears in bare form, lacking both case and number morphology. It is also adjacent to the verb. The subject in turn appears with intransitive nominal morphology. Finally, (1c) shows that the bare object that is adjacent to the verb can also be modified by an adjective, suggesting that the PNI-ed object is a complex phrase, rather than a simplex nominal head.

(1) *Pseudo noun incorporation in Niuean*

    a. Takafaga tūmau nī   e   ia e   tau ika.
        hunt   always EMPH ERG he ABS PL   fish
        'He is always fishing.'

    b. Takafaga **ika** tūmau nī   a   ia.
        hunt   fish always EMPH ABS he
        'He is always fishing.'

    c. Ne inu **kofe kono** a   Mele.
        PST drink coffee bitter ABS Mele
        'Mary drank bitter coffee.'

        (Massam, 2001, p. 157ff)

Another property that usually characterizes PNI is the impossibility of the PNI-ed nominal to be a subject (though see Öztürk 2009, who argues that subjects can indeed be incorporated in Turkish).[1] This can be illustrated in Tamil (Baker, 2014b). (2a) is a baseline example where the object is a full nominal that contains a determiner and also case morphology. In (2b), the theme does not contain this nominal morphology. (2c) indicates that, under these conditions, the object must be adjacent to the verb, even though full nominals can be separated from the same verb by a locative argument (2a). (2d) shows that they PNI-ed nominal can be internally complex, including not only number morphology, but also an adjective. (2e) illustrates the obligatory narrow scope reading of a PNI-ed nominal. Finally, (2f) shows that a subject cannot receive this interpretation – in fact, it must take wide scope with respect to the same operator as that used in (2e) (*again and*

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[1]However, at least in Brazilian Portuguese (Schmitt & Munn 1999; Müller 2002; Pires de Oliveira & Rothstein 2011, a.o.), the occurrence of bare singulars in the subject position is contingent on tense and aspect properties of the sentence:

(i)   a. ?? **Menino** jog-ou   bola.
          boy   play-PST.PRF.3SG ball.
          Int.: 'Boys played soccer.'

       b. **Menino** jog-ava   bola.
          boy   play-PST.IPFV.3SG ball.
          'Boys used to play soccer.'

          (Pires de Oliveira & Rothstein, 2011, (25))

Regrettably, I do not have the equivalent Wolof contrast.

again). Scope is relevant in this case due to the fact that subjects in Tamil do not have overt case morphology to begin with.

(2) *Pseudo noun incorporation in Tamil*

    a.   Naan oru pustagatt-e anda pombale-kiṭṭe kuḍu-tt-een.
         I   a   book-ACC the woman-LOC give-PAST-1SS
         'I gave a book to the woman.'

    b.   Naan anda pombale-kiṭṭe **pustagam** kuḍu-tt-een.
         I   the woman-LOC book   give-PAST-1SS
         'I gave a book to the woman.'

    c. * Naan **pustagam** anda pombale-kiṭṭe kuḍu-tt-een.
         I   book   the woman-LOC give-PAST-1SS
         Int.: 'I gave a book to the woman.'

    d.   Baala **paẓeya pustaga-nga** vi-tt-aan.
         Bala old   book-PL   sell-PAST-3MS
         'Bala sold old books.'

    e.   Naan tirumba tirumba **pustagam** vang-an-een.
         I   again   again   book   buy-PAST-1SS
         'I bought book(s) again and again.' (a different book each time)

    f. # Bala-ve tirumba tirumba **naaji** keḍi-cc-icci.
         Bala-ACC again   again   dog   bite-PAST-3NS
         'A dog bit Bala again and again.' (only the same dog bit him over and over)
         (Baker, 2014b, p. 8ff; 18; 23)

In Wolof (Niger-Congo), bare nominals display some of the properties found in PNI. (For recent literature on Wolof, see, Tamba *et al.* 2012; Torrence 2013a; Harris 2015; Martinović 2015, 2017, 2019, a.o.)[2](3a) is a baseline example, where the object is full nominal with a determiner and the class marker characteristic of Wolof. (3b) is a bare nominal (BN) version of that. We see in (3c) that this is not possible when the object is a BN. (3d) shows that a BN object must take narrow scope. Finally, (3e) shows that a BN cannot be the subject of a transitive verb in a finite clause.

(3) *Pseudo noun incorporation in Wolof*

    a.   Xale y-i   jënd-na-ñu a-b   téere.
         child CM.PL-DEF buy-NA-3PL INDEF-CM.SG book
         'The children bought a book.'

    b.   Xale y-i   jënd-na-ñu **téere**.
         child CM.PL-DEF buy-NA-3PL book
         'The children bought a book.'

    c.   Jàngalekat b-i   jàng-na   { *cikaw } **taalif** { cikaw }.
         teacher   CM.SG-DEF read-NA.3SG { *loudly } poem { loudly }
         'The teacher read a poem loudly.'

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[2]The Wolof abbreviations I use here are as follows: CAUS = causative, CM = class marker, COMP = complementizer, 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.

    d.   Isaa fatte-na   jënd **fowekaay**.
           Isaa forget-NA.3SG buy toy
           'Isaa forgot to a buy a toy.'

          i.   *# Isaa is going to a store and I gave him a list of toys that I want him to buy for my dogs. He suceeded in buying all toys, except for one (i.e. there is one toy that Isaa did not buy).*

          ii.   ✓ *Isaa is going to a store and I gave him a list of toys that I want him to buy for my dogs. He ended up not buying any toy at all.*

    e.   * **Sasfam** fatte-na   tej   palanteer=am.
           nurse   forget-NA.3SG close window=POSS.3SG
           Int.: 'A nurse forgot to close his;her window.'

Massam's analysis of pseudo noun incorporation has one main component, which has consequences for both the internal and external properties of bare nominals in Niuean. Massam proposes that bare nominals in this language have a defective structure; specifically, they do not contain a DP layer, projecting just an NP, unlike their full nominal counterparts. As a consequence, bare nominals in Niuean lack case and determiner morphology, with the lack of case also having consequences for the case marking of a higher co-argument: (1b) above shows that a PNI sentence displays intransitive case and agreement properties, even though the verb (*takafaga* 'hunt') is transitive. Spefically, the subject (*ia*) appears with absolute (and not ergative) case. Nonetheless, the bare nominal is still a complex phrase, capturing why it can be modified (1c). Besides capturing the internal properties of a PNI-ed nominal in Niuean, this analysis also captures a signature property of PNI, namely the adjacency between the bare object and the verb: according to Massam, the lack of a DP layer in Niuean bare nominals is also the reason why they cannot move to a position that is otherwise occupied by full nominal objects in the language. More precisely, objects in Niuean evacuate the verb phrase, so that they escape the predicate fronting that results in the verb-initial order that is characteristic of the language. However, because bare nominals cannot move, they remain inside the fronted VP, so that they end up adjacent to the verb even after predicate fronting. In this analysis of PNI phenomena, the adjacency requirement follows from the inability of a bare nominal object to move from the its base-generation position.

Baker (2014b), on the other hand, proposes that there indeed is some type of movement involved in PNI. More precisely, PNI is the result of the head of an NP theme head-moving to V, forming a complex predicate at LF. Baker assumes that movement is a non-primitive operation that involves copying, such that copies must be deleted in order to avoid contradictory linearization statements (see, for instance, Nunes 2004). Because the proposed PNI head movement is not triggered by features nor is it driven by affixal properties of some node, there is no simple criterion that could determine which copy to pronounce and which to delete. As such, Baker contends that the only way to move the PNI-ed nominal and avoid linearization ill-formedness is for the moving N^0 to move vacuously. Specifically, Baker, p. 27 claims that "in this particular situation *[i.e., in PNI construction, analyzed as head movement]* a single pronunciation of *[a PNI-ed NP]* can count as a realization of both copies of the N movement chain". If some element comes between the PNI-ed NP and the verb, a linearization contradiction will indeed arise. Hence, in Baker's analysis, the adjacency requirement follows from a conspiracy between how PNI arises (head movement of N^0 from NP to V^0) and how the resulting derivation can avoid linearization ill-formedness.

Massam's and Baker's approaches thus differ in how each author derives the adjacency requirement. According to Massam, the need of the bare nominal object to be adjacency to the verb is the byproduct of the nominal's inability to move away from its base-generation position. In Baker's

account, however, the adjacency requirement is not caused by a property of the PNI-ed nominal. Rather, it follows from a conspiracy between how PNI is derived and how a derivation should proceed in order for linearization statements not to be contradictory. As such, Baker's analysis does make room for the adjacency requirement to be side-stepped, as long as no linearization issue arises. Nonetheless, despite this higher degree of flexibility, the type of PNI found in Wolof poses a challenge to a linearization-based theory like Baker's. In particular, while PNI in Wolof also obeys the adjacency requirement (3c), there are circumnstances where it can be bypassed, as in (4b), where the causee *Roxaya* intervenes between the verb and the theme bare nominal.

(4)   a.   Jënd-oloo-na-a   **téere** Roxaya.
           buy-CAUS-NA-1SG book Roxaya
           'I made Roxaya buy a book.'
      b.   Jënd-oloo-na-a   Roxaya **téere**.
           buy-CAUS-NA-1SG Roxaya book
           'I made Roxaya buy a book.'

A further point of flexibility in Baker's theory is that it predicts a correlation between the availability of V-to-T movement and a more relaxed adjacency requirement. I will show below that this correlation does not hold in Wolof.

Nonetheless, a correlation that does hold in the Wolof data to be surveyed is that which holds between the introduction of a non-core argument in the sentence (the causee in (4b)) and the loosening of the adjacency requirement. This can be captured in a theory of nominal licensing that is based on dependent case (Marantz, 2000; Baker & Vinokurova, 2010; Baker, 2012, 2014a), as that put forth by Branan (to appear). As we are going to see below, Branan proposes that nominals must be licensed with case, with adjacency with the verb arising as a last resort licensing option if case assignment is not possible. Under a configurational view of case assignment, whether or not a nominal is assigned case is a function of the presence of other nominals in a given syntactic domain that can act as case competitors. As we are going to see, the adjacency requirement holds in Wolof PNI, unless another nominal is made present in the same sentence, as in (4b). This correlation can be accounted for straightforwardly in a dependent case analysis of PNI.

This paper is organized as follows. In §2, I describe the properties of pseudo noun incorporation in Wolof. We shall see that, as previewed in (3), while Wolof obeys the adjacency requirement, there are two ways to avoid it: either the BN is Ā-moved or a non-core argument is introduced between the subject and the BN theme. A question that these data motivate is what common property of these two independent phenomena permit the adjacency requirement to be obviated. In §3, I summarize the main relevant properties of Branan's (to appear) theory of nominal licensing, where nominals must be assigned case, with adjacency with the verb arising as a last resort option when case assignment is not possible. Because Branan's theory builds on a dependent case framework, a unified analysis can provided to the question above: what Ā-movement and three-argument constructions have in common is that they both provide a case competitor that allows a BN theme to be assigned case, which does away with verb adjacency. In §4, I apply Branan's (to appear) nominal licensing to Wolof. While the analysis does not cover certain aspects of PNI in Wolof like the impossibility of BNs to occur in the subject position (3e), I will indicate how it can nonetheless offer some guidance in how we can go about finding the appropriate account. In the same section, I will argue that a PNI analysis grounded on linearization makes empirically incorrect predictions regarding the Wolof data. §5 is a summary of the analysis to be put forward in the present paper to account for the distribution of PNI in Wolof.

2   The distribution of BNs in Wolof

The data previewed above suggests that BNs in Wolof have the distribution of PNI-ed nominals. However, there are ways to obviate the verb-adjacency requirement in Wolof that are not always found in PNI: if the bare nominal is Ā-moved or if it is embedded in a construction where an additional argument is introduced between the sentence's subject and the theme bare nominal (namely, in applied, ditransitive, and causative constructions), there no longer has to be adjacency between the bare nominal and the verb. My proposal, based on Branan (to appear), is that the distribution of bare nominals in Wolof is at least partially governed by the need to license nominals with case, adjacency with the verb being a last resort means to license a nominal that cannot receive case by other means. More precisely, assuming a dependent case framework, bare nominals in Wolof cannot be assigned case because they belong to a different case domain than the subject, so they have to be rescued by verb-adjacency. According to this analysis, what Ā-movement and three-argument constructions have in common is that they allow for the bare nominal to be visible to a case competitor: Ā-movement displaces the bare nominal into the same case domain as a case competitor, while the intermediate argument of three-argument constructions acts as a case competitor itself.

   An analysis-internal challenge is to account for both the distribution of bare nominals in Wolof and their full nominal counterparts: the latter do not obey the verb-adjacency requirement. I rely on scope differences between full and bare nominals, only the latter being obligatorily narrow scope indefinites. I also capitalize on these differences to argue that bare and non-bare nominal occupy different syntactic positions: non-bare nominals occupy a higher position that allows them to be visible to the subject, a case competitor.

   A BN in the direct object position must be adjacent to the verb. (5a) illustrates the fact that a low adverb can intervene between the verbal complex and a full nominal object. (5b) in turn shows that the same adverb cannot be placed between the verbal complex and a BN object.

(5)   a.   Jàngalekat b-i   jàng-na   { cikaw } taalif b-i   { cikaw }.
           teacher   CM.SG-DEF read-NA.3SG { loudly } poem CM.SG-DEF { loudly }
           'The teacher read the poem loudly.'
      b.   Jàngalekat b-i   jàng-na   { *cikaw } **taalif** { cikaw }.
           teacher   CM.SG-DEF read-NA.3SG { *loudly } poem { loudly }
           'The teacher read a poem loudly.'

(6) is another paradigm showcasing the same restriction.

(6)   a.   Roxaya { *bugaaw } jang-na   { bugaaw } xibaar   b-i   { bugaaw }
           Roxaya { *quickly } read-NA.3SG { quickly } newspaper CM.SG-DEF { quickly }
           'Roxaya read the newspaper quickly.'
      b.   Roxaya { *bugaaw } jang-na   { ?bugaaw } **xibaar**   { bugaaw }
           Roxaya { *quickly } read-NA.3SG { ?quickly } newspaper { quickly }
           'Roxaya a newspaper quickly.'

   However, this requirement can be sidestepped in two ways: *(i)* addition of another argument, which is lower than the (agentive) subject, but higher than the direct object; *(ii)* Ā-movement of the BN direct object. This configuration is instantiated by clefting the BN or by relativizing it.

   When another intermediate argument is added in clause, it can optionally intervene between

the verb and the BN direct object.[3] This description obtains in ditransitive (7), applicative (8), and causative (9) constructions. In the data to follow, the (a) and (b) are baseline examples where the theme is a full nominal. This theme can either precede or follow the intermediate argument (a goal, an applied argument, or a causee, respectively). (c) and (d) are the BN counterparts of these examples, where the same range of possible word orders is available.

(7)   *Variable word order with ditransitive*

    a. Awa netali-na   b-enn   leep xale y-i.
        Awa narrate-NA.3SG CM.SG-one story child CM.PL-DEF
        'Awa narrated a story to the children.'   *FN; theme ≫ goal*

    b. Awa netali-na   xale y-i   b-enn   leep.
        Awa narrate-NA.3SG child CM.PL-DEF CM.SG-one story
        'Awa narrated a story to the children.'   *FN; goal ≫ theme*

    c. Awa netali-na   **leep** xale y-i.
        Awa narrate-NA.3SG story child CM.PL-DEF
        'Awa narrated a story to the children.'   *BN; theme ≫ goal*

    d. Awa netali-na   xale y-i   **leep**.
        Awa narrate-NA.3SG child CM.PL-DEF story
        'Awa narrated a story to the children.'   *BN; goal ≫ theme*

(8)   *Variable word order in applicative*

    a. Awa tabax-al-na   kër   g-i   Faatu.
        Awa build-APPL-NA.3SG house CM.SG-DEF Faatu
        'Awa built Faatu the house.'   *FN; theme ≫ APPL*

    b. Awa tabax-al-na   Faatu kër   g-i.
        Awa build-APPL-NA.3SG Faatu house CM.SG-DEF
        'Awa built Faatu the house.'   *FN; APPL ≫ theme*

    c. Janga-al-na-a   **taalif** sama   doom.
        read-APPL-NA-1SG poem POSS.1SG child
        'I read my child a poem.'   *BN; theme ≫ APPL*

    d. Janga-al-na-a   sama   doom **taalif**.
        read-APPL-NA-1SG POSS.1SG child poem
        'I read my child a poem.'   *BN; APPL ≫ theme*

(9)   *Variable word order in causative*

    a. Bindo-loo-na-a   a-b   leetar xale y-i.
        write-CAUS-NA-1SG INDEF-CM.SG letter child CM.PL-DEG
        'I made the children write a letter.'   *FN; theme ≫ causee*

    b. Bindo-loo-na-a   xale y-i   a-b   leetar.
        write-CAUS-NA-1SG child CM.PL-DEF INDEF-CM.SG letter
        'I made the children write a letter.'   *FN; causee ≫ theme*

    c. Jënd-oloo-na-a   **téere** Roxaya.
        buy-CAUS-NA-1SG book Roxaya
        'I made Roxaya buy a book.'   *BN; theme ≫ causee*

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[3]The same word order variability has been observed in ditransitives in Hocąk by Johnson (2015), who first made a case against a linearization-based analysis of PNI. See more discussion in §4.5.

d. Jënd-oloo-na-a   Roxaya **téere**.
   buy-CAUS-NA-1SG Roxaya book
   'I made Roxaya buy a book.'   *BN; causee ≫ theme*

(10) shows additionally that a BN can be separated from a causativized verb not only by the causee argument, but also by an adverb.

(10) Bindo-loo-na-a   xale y-i   ndanka ndanka **bataaxal**.
      write-CAUS-NA-1SG child CM.PL-DEF slowly slowly letter
      'I patiently (lit.: slowly) made the children write a letter.'

   Another way to void the adjacency requirement is by Ā-movement of theme BN. One type of Ā-movement that brings about this effect is clefting (on clefting in Wolof, see Torrence 2013b; Martinović 2017).

(11) a. Isaa binda-na   **taalif** déemba.
         Isaa write-NA.3SG poem yesterday
         'Isaa wrote a poem yesterday.'

      b. **Taalif** la   xale y-i   binda ___.
         poem   FOC.OBJ.3SG child CM.PL-DEF wrote
         'It is a poem that the children wrote.'

Likewise, relativizing a BN allows it not to be adjacent to the verb. In (12a), we see that adding a relative to a full nominal does not change the possibility of an adverb intervening between it and the verb (cf. (5a)). However, the addition of a relative clause does increase the possible linear order available to a BN. (12b) demonstrates that a BN under these conditions can be separated from the verb by an adverb (cf. (5b))

(12) a. Jàngalekat b-i   jàng-na   { cikaw } a-b   taalif [b-u
         teacher   CM.SG-DEF read-NA.3SG { loudly } INDEF-CM.SG poem [CM.SG-COMP
         Kadeer bind] { cikaw }.
         Kadeer write] { loudly }
         'The teacher read loudly a poem that Kadeer wrote.'

      b. Jàngalekat b-i   jàng-na   { cikaw } **taalif** [b-u   Kadeer bind] {
         teacher   CM.SG-DEF read-NA.3SG { loudly } poem [CM.SG-COMP Kadeer write] {
         cikaw }.
         loudly }
         'The teacher read loudly a poem that Kadeer wrote.'

   BNs cannot be the highest argument, namely, the subject. This observation has already been made by Tamba *et al.* (2012, p. 906), who show the following pair:

(13) a.   A-b   / b-enn   xale jàng-na   téére b-i.
           INDEF-CM.SG / CM.SG-one child steal-NA.3SG book CM.SG-DEF
           'A child read the book.'

      b. * **Xale** jàng-na   téére b-i.
           child steal-NA.3SG book CM.SG-DEF
           Int.: 'A child read the book.'
           (Tamba *et al.* , 2012, (36))

That BNs in Wolof cannot be the subject is a restriction that holds of root (14) and of finite embedded clauses (15).

(14) a. * **Sasfam** fatte-na   tej   palanteer=am.
           nurse   forget-NA.3SG close window=POSS.3SG
           Int.: 'A nurse forgot to close his;her window.'
           (Speaker commented that the sentence would only be grammatical if 'Sasfam' were a proper name.)

      b. * **Ndonggo darra** lekk-na   maafe.
           student   eat-NA.3SG maafe
           Lit.: 'Student ate maafe.'

(15) * Kumba wax-na   [ne   **muus** lekk-na   a-b   janax].
        Kumba say-NA.3SG [COMP cat   eat-NA.3SG INDEF-CM.SG mouse]
        Int.: 'Kumba said that a cat ate a mouse.'

The questions we can ask regarding the distribution of PNI in Wolof are therefore as follows:

(16) i.   Why do BNs have to obey the adjacency requirement, while full nominals do not?
      ii. Why does adding an argument between the subject and the BN theme (in the form of an applied argument or causee) allow the latter to bypass the adjacency requirement?
      iii. Why does Ā-moving a BN theme also allow it to bypass the adjacency requirement, where Ā-movement can be performed by either relativization of clefting?
      iv. What is there in common between three-argument constructions and Ā-movement such that they both allow a BN theme in Wolof to escape the adjacency requirement?

As mentioned in the introduction, existing PNI analyses can straightforwardly account for the adjacency requirement (16i). However, they may not readily carry over to the cases where this condition is sidestepped (16ii/16iii). I will argue that a dependent case view of nominal licensing (Branan, to appear) is able to explain these cases and, furthermore, what they have in common (16iv). As we are going to see, in a dependent case system (Marantz, 2000), case assignment is calculated based on the c-command relationship between two nominals within a given domain. What (16ii) and (16iii) have in common is that a case competitor is provided to the BN in object position, allowing it to be licensed. While I will not provide an answer to why BNs in Wolof cannot be subjects, I will show how the dependent case framework assumed can help us go about finding an explanation for this impossibility. The analysis to be put forward does not provide a full answer as to why PNI cannot target subjects, though I will try to show that it does provide some guidance in evaluating possible hypotheses.

In the next section, I will summarize Branan's theory of nominal licensing.

3   Nominal licensing in Branan (to appear)

The effect that the addition of another intermediate argument has to the behavior of the BN in ditransitive, causative, and applicative structures is strikingly similar to a pattern in Kikuyu that Branan (to appear) analyzes. Nominals in Kikuyu that are in subject position (more generally, in non-direct object position) can come in the order *demonstrative–noun* and *noun–demonstrative*.

(17) *Kikuyu: DEM-N and N-DEM possible in non-direct object*

9

a. **mũndũ ũyũ**   nĩ-a-rũg-ir-e.
   1.man   1.DEM FOC-1S-jump-ASP
   'This man jumped.'

b. **ũyũ**   **mũndũ** nĩ-a-rũg-ir-e.
   1.DEM 1.man   FOC-1S-jump-ASP
   'This man jumped.'

   (Branan, to appear, (2a/b))

However, this order alternation is no longer available when the nominal is the object of a transitive verb:

(18) *Kikuyu: only N-DEM is possible in direct object*

a.   Mwangi nĩ-a-on-ire   **mũndũ ũyũ**.
     Mwangi FOC-1S-see-ASP 1.man   1.DEM
     'Mwangi saw this man.'

b.   * Mwangi nĩ-a-on-ire   **ũyũ**   **mũndũ**.
     Mwangi FOC-1S-see-ASP 1.DEM 1.man
     Int.: 'Mwangi saw this man.'

     (Branan, to appear, (1))

An obvious question raised by these data is, what explains the ordering restriction in direct objects in Kikuyu? Branan's answer to this question has two main components: the proposal that nominals must be licensed (Levin, 2015) and a particular proposal about case domains in the Kikuyu VP.

Following Levin (2015), Branan assumes that nominals must be licensed; nominal licensing is achieved either by case assignment or via adjacency with the verb (Baker, 1985). (See also Imanishi (2017) and Van Urk (2019), who apply the same analysis to case dropping in Japanese and Differential Object Marking in Fijian, respectively.)

(19) *Nominal licensing*

a. A nominal must be *[case]]*-licensed.
b. A nominal is *[case]*-licensed iff it:
   i. It has been assigned case or
   ii. Its N^0 is strictly adjacent to V^0.
   (Branan, to appear, (4, 5))

Importantly, Levin (2015) assumes that the last resort, verb adjacency licensing strategy can be applied late in the derivation, at the morphological component, where post-syntactic operations like Local Dislocation (Embick & Noyer, 2001) can help achieve the desired adjacency. This is going to be relevant when we discuss how adjacency can be obtained in a language with verbal head movement like Wolof.

The subject of a finite clause is a position where it can be assigned case, dispensing with the need of its head N^0 to be adjacent to the verb. However, the object of a transitive verb would not be able to receive case in Kikuyu, which is why adjacency between its head N^0 and the verb now becomes necessary. In order to comply with (19), the head N^0 of the object must be adjacent with the verb. As such, the order *demonstrative–noun* becomes unavailable.

At this point, one must ask why it would not be possible for a direct object to be assigned case in Kikuyu. Branan assumes a dependent case framework (Marantz 2000, a.o.), where case is not assigned by particular functional heads (e.g. finite T and transitive *v*), but rather calculated based on the c-command relationship between two nominals within a given syntactic domain. In (20), DP1 and DP2 belong to the same domain of case assignment XP. In this paper, I assume that domains of case assignment are phases (Baker, 2014a). Within XP, DP2 asymmetrically c-commands DP1. Assume that neither DP has been assigned idiosyncratic lexical case. In a language with ergative case alignment, DP2 is assigned dependent ergative case. In a language with nominal case alignment, DP1 is assigned dependent accusative case. Any remaining DP that has not been assigned lexical nor dependent case is assigned unmarked case (absolutive case in ergative languages or nominative case in accusative case languages).

The dependent case calculus can be diagrammed as in (20). A formalization taken from Baker & Vinokurova (2010) is spelled-out in (21).

(20)
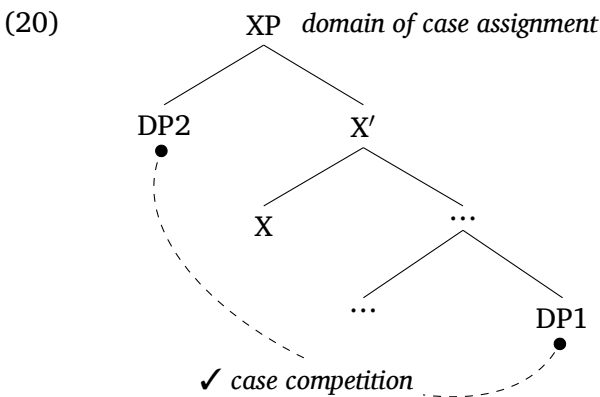
(21)   *Assignment of depdent accusative case*

If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.

(Baker & Vinokurova, 2010, (4b))

If DP2 and DP1 did not belong to the same domain of case assignment (e.g. if each belonged to a different phase), dependent case could not have been assigned.

Even though Wolof does not have case morphology, we can argue that it follows a nominative alignment. First, in neutral sentences (i.e. sentences where no particular constituent is focussed and the whole sentence provides new information), the verbal complex contains morphology that cross-references the subject. This cross-referencing follows a nominative alignment: the subject of both transitive and intransitive verbs is cross-referenced.

(22)   a.   Jàngakat b-i   lekk-na   ceeb-u   jën.
             student   CM.SG-DEF eat-NA.3SG rice-GEN.SG fish
             'The student ate rice and fish.'

       b.   Jàngakat y-i   lekk-na-ñu ceeb-u   jën.
             student   CM.PL-DEF eat-NA-3PL rice-GEN.SG fish
             'The students ate rice and fish.'

(23) a. A-b   paket   agsi-na.
          INDEF-CM.SG package arrive-NA.3SG
          'A package arrived.'

      b. A-y   paket   agsi-na-ñu.
          INDEF-CM.SG package arrive-NA-3PL
          'Some packages arrived.'

Additionally, while there is no case morphology in nominals, case can be argued to be reflected in the pronominal system (in a way that is reminiscent of what is found in Romance languages):

(24)

	Object clitics	Oblique pronouns	Subject markers
1SG	ma	man	(m)a
2SG	la	yaw	nga/ya
3SG	ko	moom	∅/(m)u
1PL	ñu	ñoom	ñu
2PL	leen	yeen	ngeen/yeen
3PL	leen	ñoom	ñu

(Adapted from Zribi-Hertz & Diagne 2002, (29))

Branan contends that, in Kikuyu, the subject and the object of a transitive verb belong to different case assignment domains. Specifically, Branan assumes that the subject of a transitive verb is generated at VoiceP, while the object is embedded inside a *v*P:

(25)   VoiceP *higher case domain*

  DP   Voice′
  SUBJECT

      Voice   *v*P *lower case domain*

          v   VP

              V   DP
                    OBJECT
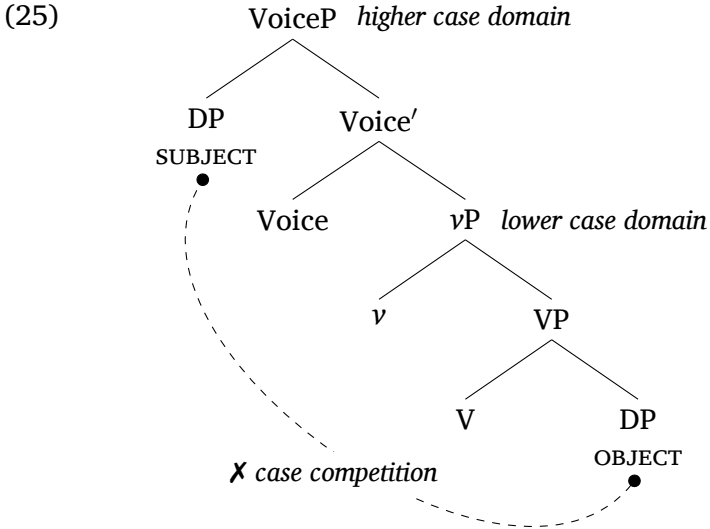
  ✗ *case competition*

(based on Branan to appear)

The subject cannot act as a case competitor for the object, which remains case-less. In order to satisfy (19), the direct object is licensed by having its head adjacent to the verb.[4]

   Two predictions emerge from this proposal: *(i)* If another nominal is introduced in the lower case domain, the object should be able to be assigned case due to the introduction of a case competitor in the same case domain, and *(ii)* if the object is displaced to a position where the subject is accessible to it, the latter can allow the former to receive case, even though this was not possible in the base-generation configuration.

   First, a strategy to introduce an intermediate argument that is nevertheless above the object is via an applicative construction (see other constructions in Branan to appear). In this configuration, the object is free to display a *determiner–noun* order.

(26)   *Kikuyu: DEM-N possible in direct object applicative*

   Njine nĩ-a-ra-rĩ-ĩra   **ici**   **irio**   ngaragu.
   Njne FOC-1S-T-eat-APPL 10.DEM 10.food 9.hunger
   'Njine is eating this food because of hunger.' (Branan, to appear, (12a))

The lower object (*ici irio* 'this food' in (26)) is assigned case via competition with the newly introduced applied argument (*ngaragu* 'hunger'). The latter argument in turn is at the edge of the lower case domain. Branan contends that this suffices for this argument to be visible to the higher subject, even if they belong to different case domains.[5] The case assignment in applicative constructions under Branan's analysis can be diagrammed as follows:

---

[4]One must assume that unmarked case is unavailable in the lower case domain, otherwise both full and bare nominal objects could be licensed by this type of case. (See also Branan to appear, fn. 12.) I thank Elise Newman and Sabine Iatridou for bringing up this issue.

[5]Indeed, the applied argument can also appear in the order *determiner–noun*. See Branan (to appear, (12c)).

(27)

VoiceP *higher case domain*

DP SUBJECT — Voice′

Voice — ApplP *lower case domain*

DP APPL — Appl′

Appl — VP

V — DP OBJECT
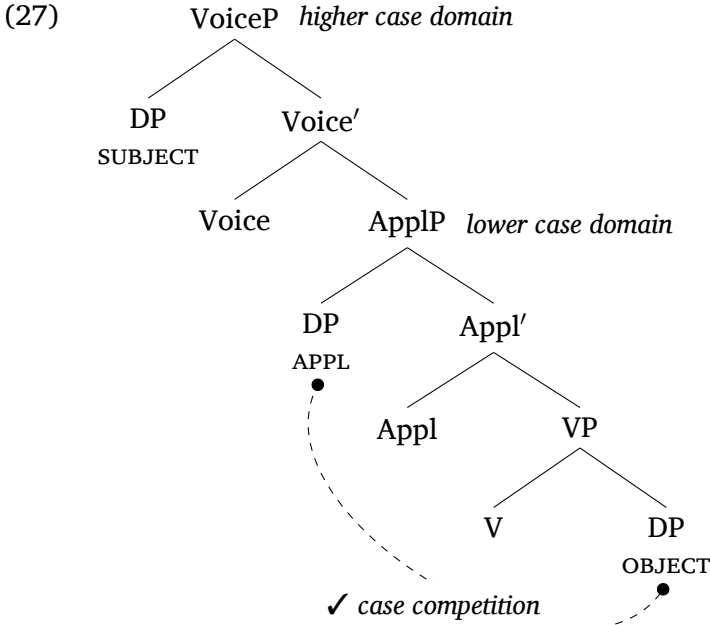
✓ *case competition*

(adapted from Branan to appear, (6))

Second, a direct object may be assigned case if a transformation allows this argument to become part of the case assignment where there is a case competitor. A case in point is *Wh*-moving the direct object. Branan shows that Kikuyu allows its *Wh*-phrases to surface in situ. In that case, a *Wh*-object behaves just like its non-interrogative counterpart (18): the head N^0 of the nominal must be adjacent to the verb (28).

(28) *Kikuyu: in-situ* Wh-*phrase requires adjacency*

    a.   Abdul a-thom-ire [**ivuku rĩrĩku**].
         Abdul 1S-read-ASP [5.book 5.which]
         'Which book did Abdul read?'

    b.   * Abdul a-thom-ire [**rĩrĩku ivuku**].
         Abdul 1S-read-ASP [5.which 5.book]
         Int.: 'Which book did Abdul read?'
         (Branan, to appear, (41))

However, if the *Wh*-object is overtly moved, this requirement can be obviated:

(29) *Kikuyu: fronted* Wh-*phrase may have either order of demonstrative*

    a. [Nĩ **ivuku rĩrĩku**] Abdul a-thom-ire __.
       [FOC 5.book 5.which] Abdul 1S-read-ASP
       'Which book did Abdul read?'

    b. [Nĩ **rĩrĩku ivuku**] Abdul a-thom-ire __.
       [FOC 5.which 5.book] Abdul 1S-read-ASP
       'Which book did Abdul read?'
       (Branan, to appear, (42))

14

Building on much previous work, Branan proposes that *Wh*-fronting requires a stopover step at the *v*P edge. This allows a moving object to transformationally become part of the higher case domain. This is where the subject is base-generated and it can act as a case competitor for the *Wh*-object.

(30)

VoiceP *higher case domain*

DP SUBJECT

Voice′

Voice

*v*P *lower case domain*

✓ *case competition*

DP$_{Wh}$ OBJECT

v′

v

VP

V

$t_{DP_{Wh}}$

(adapted from Branan to appear, (39))

As mentioned above, the linear order possibilities in three-argument constructions and Ā-movement in Wolof (see §2) are quite similar to what Branan describes and examines in Kikuyu. As such, it seems appropriate to extend this analysis to Wolof PNI. This is the task in the next section; auxiliary assumptions will be introduced and justified as needed.

4 Applying Branan (to appear) to Wolof PNI

4.1 Adjacency with the verb

Recall that one of our goals is to explain why a BN object in Wolof must be adjacent to the verb, as shown in (31b), repeated from above.

(31) a. Jàngalekat b-i jàng-na { cikaw } taalif b-i { cikaw }.
teacher CM.SG-DEF read-NA.3SG { loudly } poem CM.SG-DEF { loudly }
'The teacher read the poem loudly.' [= (5a)]

b. Jàngalekat b-i jàng-na { *cikaw } **taalif** { cikaw }.
teacher CM.SG-DEF read-NA.3SG { *loudly } poem { loudly }
'The teacher read a poem loudly.' [= (5b)]

15

We can interpret the adjacency requirement as a BN's response to satisfy the Nominal licensing requirement (19). Specifically, a direct object BN must be assigned case, but, as in Kikuyu, the subject belongs to a different, higher case domain. As a result, the only way for a direct object BN to be licensed is via adjacency with the verb. As briefly mentioned above, I follow Levin (2015) in assuming that verb adjacency can be assessed late in derivation, as late as the morphological component. More precisely, Levin argues that verb adjacency can be obtained through a post-syntactic operation like local dislocation (Embick & Noyer, 2001). This component of the proposal because, as we are going to see in §4.5, Wolof has verb movement.[6] As such, if BNs stay in situ, at the narrow syntax, the adjacency requirement would not be complied with. If, conversely, this requirement can be verified post-syntactically, BNs can be appropriately licensed.

However, in Kikuyu, there is only one realizational possibility in the object position, namely, the determiner of a nominal in that position must follow a head-final pattern, even though a head-initial pattern is also available. To recall, Branan's proposal to account for this restriction is that it is caused by the need of a nominal to be licensed, which, in the object position, can only be achieved if the head of the nominal is adjacent to the verbal complex. In Wolof, in contrast, more than one possibility is available for a nominal in the object position: it can be either a bare or a full nominal. The analysis sketched above only accounts for the distribution of BNs. All things equal, however, full nominals in the object position should not be able to be assigned case either. As such, the prediction from the analysis as it stands so far is that a full nominal in the object position should cause the derivation to crash due to a violation of (19). (31a), where the head of the full nominal object is not adjacent to the verb, shows that this prediction is not borne out.

In order to extend Branan's analysis to Wolof, I propose the following object shift stipulations:[7]

(32) i. Full nominals in the object position must exit the *v*P (the lower case domain).

  ii. BNs are unable to move to the same position.

A suggestion that full nominal and bare nominal objects occupy different position is provided by scope facts. (33) shows that a full indefinite headed by *a-b* can scope above a verb like *fatte* 'forget'.

(33) Samba fatte-na   tej a-b   palanteer.
      Samba forget-NA.3SG close INDEF-CM.SG window
      'Samba forgot to close a window.'
      i. ✓ *Samba lives in a big house, with a lot of windows. He likes to leave them open to let fresh air in. It starts raining, so he rushes to close the windows. There is a window that Samba forgot to close, though he closed all the other ones.*
      ii. # *Samba lives in a big house, with a lot of windows. He likes to leave them open to let fresh air in. It starts raining, but Samba does not close any window at all.*

(34) shows that a different indefinite determiner (*b-enn*) can also be interpreted above a scope-taking verb like *seet* 'look for'.

(34) Roxaya seet-na   b-enn   xaj [b-u   sokola]. Kumba la   tuddu.
      Roxaya look.for-NA.3SG CM.SG-one dog [CM.SG-COMP brown] Kumba COP.3SG name
      'Roxaya looked for a dog who is brown. Kumba is his name.'

---

[6]I thank [redacted] for this observation.

[7]See e.g. Baker (2012) for a similar analysis of object agreement in Amharic.

(35) in turn shows that a BN in the same position takes narrow scope, obligatorily. That PNI-ed nominals have a narrow scope indefinite reading has already been observed by, for instance, Chung & Ladusaw (2003), Dayal (2011), and Baker (2014b).

(35) Isaa fatte-na   jënd **fowekaay**.
Isaa forget-NA.3SG buy toy
'Isaa forgot to a buy a toy.'   [= (3d)]

    a. # *Isaa is going to a store and I gave him a list of toys that I want him to buy for my dogs. He suceeded in buying all toys, except for one (i.e. there is one toy that Isaa did not buy).*

    b. ✓ *Isaa is going to a store and I gave him a list of toys that I want him to buy for my dogs. He ended up not buying any toy at all.*

Compare the behavior of these three types of indefinites (i.e. full nominals headed by *a-b* or *b-enn* and the BN) with respect to verbs like *forget* and *look for* and their behavior when negation (-*ul*) is present in the sentence. (36), (37), and (38), respectively, show that *a-b* indefinites, BNs, and *b-enn* indefinites must all scope under negation, even though these indefinite nominals behave differently with respect to other scope-taking elements.

(36) CONTEXT: Samba is a very busy student who also works part-time. He often finds himself having to choose which school assignments to do because he does not have enough time, though he does his best. There is a list of books for him to read for his literature class. There is one book that he didn't read, though he read all of the others.

  # Samba jàng-ul-na   a-b   téere.
    Samba read-NEG-NA.3SG INDEF-CM.SG book
    'Samba did not read a book.'

(37) a. CONTEXT: Samba closed all windows.

      Samba fatte-ul   tej b-enn   palanteer.
      Samba forget-NEG close CM.SG-one window
      'Samba did not forget to close a window.'

    b. Samba jàng-ul-na   b-enn   téere.
      Samba read-NEG-NA.3SG INDEF-CM.SG book
      'Samba did not read a book.'

      i. ✓ *Samba did not read any book at all.*

      ii. # … *Une si longue lettre* la   tuddu.
        So long a letter   COP.3SG name
        '… The name of the book is *So long a letter*.'

(38) CONTEXT: Faatu loves dogs, but she could not have any because she had always lived in tiny apartments. She is finally moving to a much bigger place, so she can adopt many dogs now. She goes to a dog shelter and adopts several of the dogs available, except for one. An employee at the dog shelter is happy that Faatu is providing a forever home for so many dogs, but the employee is also sad that this one dog was not adopted.

  Faatu adopte-ul **xaj**. # Tur=am   mo-y   Calki.
    Faatu adopt-NEG dog # name=POSS.3SG MO.3SG-IMPF Calki
    'Faatu did not adopt any dog at all. # The dog's name is Calki.'

Faced with these data, we must identify a syntactic position where a full indefinite can scope above verbs like *forget* and *look for*, while necessarily scoping below negation. Furthermore, we must identify another position, where BNs scope below not only the aforementioned verbs, but also below negation.

Before we find this position, we may also take note of the fact that Wolof has a construction where a predicate can be focalized:

(39) *Predicate clefting*

   a. Xale y-i   dañoo jënd a-b   téere.
       child CM.PL-DEF do.3PL buy INDEF-CM.SG book
       'What the children did was buy a book.'

   b. Xale y-i   dañoo jënd **téere**.
       child CM.PL-DEF do.3PL buy book
       'What the children did was buy a book.'

As we can see in (39), the morphology that cross-references the subject is now attached to 'do' and not to the lexical verb, as in neutral, *na* clauses. (39) also shows that the same construction can be used whether the object is a full or bare nominal.

Wolof is well-known for its rich system of sentential particles, morphemes that encode, among other things, information structure (Zribi-Hertz & Diagne 2002; Torrence 2013a; a.o.). These morphemes are sensitive as to whether a constituent to its left is topical or focal, or if the whole sentence is new information, among other things. In (40) – and in most sentences in this paper –, it is the morpheme for neutral sentences, *na*.

(40) Jàngakat b-i   lekk-**na**   ceeb-u   jën.
      student   CM.SG-DEF eat-NA.3SG rice-GEN.SG fish
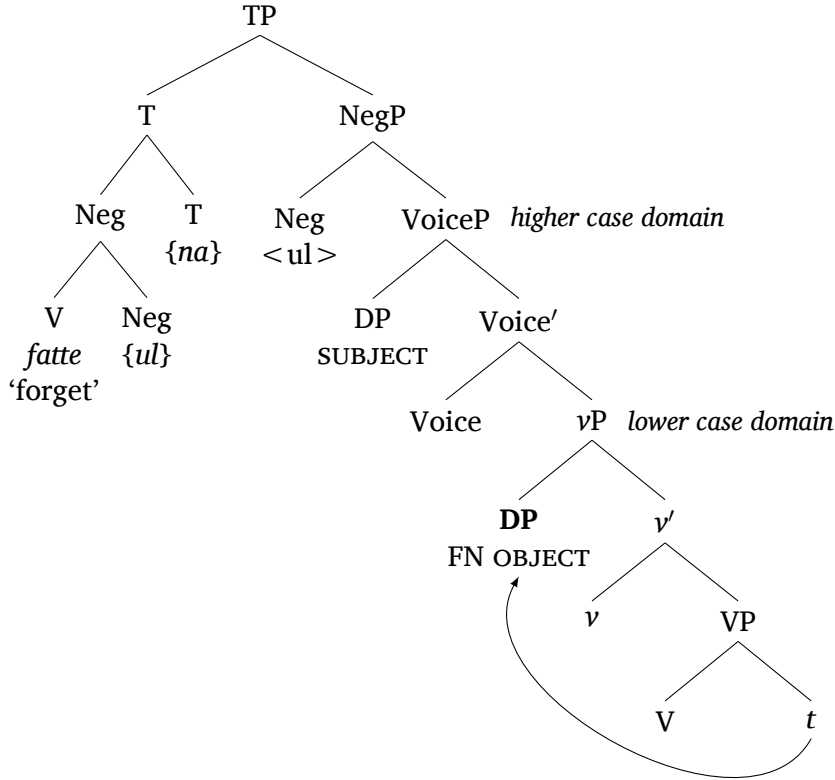   'The student ate rice and fish.'

By assumption, in *na* clauses, because the lexical verb precedes this affix, it must move away from the verb phrase and into a higher functional projection. This higher functional projection must be at least TP.[8] In that same position, the verb acquires the morphology that cross-references the subject of the sentence. In keeping with this reasoning, because the verb in predicate focus sentences follows the subject-crossreferencing morphology, I assume it stays inside the verb phrase, specifically, inside VoiceP, following the assumptions in Branan (to appear).

We now have two sets of facts to account for: *(i)* the scope properties of each indefinite nominal considered here and *(ii)* the word order found in predicate focus constructions. In order to capture these facts, I propose the following structure and derivation:

---

[8]Torrence (2013a), among others, analyze morphemes like *na* as left periphery heads, since they encode information structure properties. It suffices for the present purposes that *na* occupies a higher functional head. The minimum projection above TP that fulfills this requirement is TP, so that is where I represent *na*, though what I say can be restated to a higher head.

Further, while this is not an issue I pursue here, it seems conceivable that information structure is indeed encoded at some phonologically null left periphery head, while *na* occupies the head of TP. The purported left periphery head would select a *na*-headed TP. We could then make commonplace assumptions about the subject – occupies Spec-TP and is crossreferenced by φ-features in T.

(41)

TP
├─ T
│ ├─ Neg
│ │ ├─ V *fatte* 'forget'
│ │ └─ Neg {*ul*}
│ └─ T {*na*}
└─ NegP
   ├─ Neg
   └─ VoiceP *higher case domain*
      ├─ DP SUBJECT
      └─ Voice′
         ├─ Voice
         └─ *v*P *lower case domain*
            ├─ **DP** FN OBJECT
            └─ *v*′
               ├─ *v*
               └─ VP
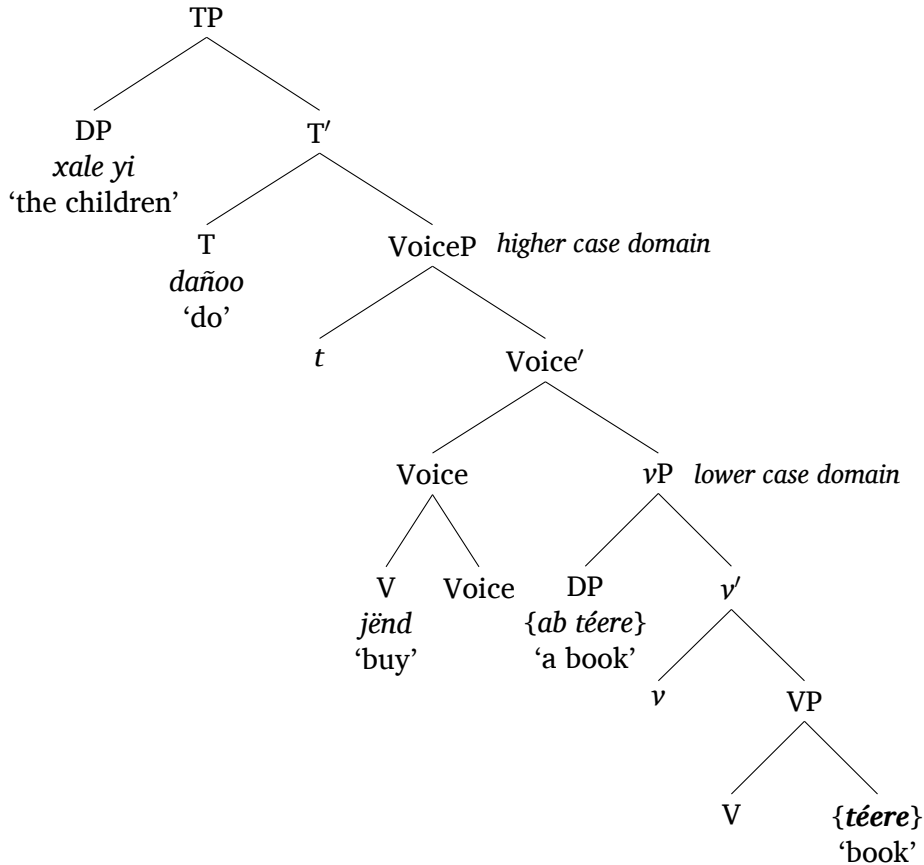   ├─ V
                  └─ *t*

As we can see in the negation data, the presence of the negative morpheme *ul* precludes the occurrence of another sentential particle like *na*. In order to capture the word order, in *na* and negative sentences (though not in predicate focus sentences), I assume that the verb moves and adjoins to T, so that it surfaces to the left of *na*. If negation occurs in the sentence, I assume that the verb first moves to Neg and then the complex head thus formed moves to T.[9] I nevertheless stipulate that, at LF, negation and the verb are interpreted in situ.

I also stipulate that full nominal (FN) objects move the edge of the lower case domain, *v*P. Combined, these proposals and stipulations can model the facts mentioned above. Because a full nominal headed by *a-b* or *b-enn* shifts above the verb, it can scope over it. However, this object is still below negation, hence why it must scope below it. BNs, on the other hand, stay in situ, hence why they take narrow scope with respect to both intensional predicates and negation.

While FN objects move, they stay inside the *v*P. If the lexical verb moves only to Voice, the structure proposed can also account for word order found in predicate focus constructions (39):

---

[9]In (41), I omit steps of head movement, which I assume to occur in piecemeal fashion, in compliance with the Head Movement Constraint, for ease of representation.

(42)

```
                          TP
                   ┌──────┴──────┐
                  DP             T′
               xale yi      ┌────┴────┐
            'the children'  T        VoiceP   higher case domain
                          dañoo    ┌───┴────┐
                           'do'    t       Voice′
                                        ┌────┴────┐
                                      Voice       vP   lower case domain
                                     ┌──┴──┐    ┌──┴──┐
                                     V   Voice  DP    v′
                                   jënd       {ab téere} ┌──┴──┐
                                   'buy'      'a book'   v    VP
                                                            ┌──┴──┐
                                                            V   {téere}
                                                                'book'
```

Under this analysis, what is predicate-clefted is VoiceP, (with the subject having moved to the subject position, here Spec-TP). The object can be a full nominal, which has moved to the edge of the lower case domain, *v*P, or a BN, which remains in situ.

This account of the positions occupied by FN and BN objects, afforded by their scope properties and by the word order properties of predicate focus constructions, allows us to solve the analysis-internal issue mentioned above. To recall, while the distribution of BN objects resemble the Kikuyu facts analyzed by Branan, an unmodified version of this analysis cannot be fully extended to Wolof, since, in Kikuyu, unlike what happens in the data examined here, there is only one possible object configuration (i.e., a nominal with a head-final determiner, where the latter does not break up the adjacency between the head of the nominal and the verb). This proposal does not completely carry over to Wolof because this language also allows FNs in the object position, which do not have to be adjacent to the verb, unlike their BN counterpart. However, as we can see in (41), these nominals are proposed to occupy different positions and, importantly, only FNs occupy a position where the subject is visible. Specifically, the FN occupies the edge of the lower case domain (*v*P), so that the subject can act as a case competitor, allowing the FN object to be assigned downwards dependent case. A BN object, on the other hand, remains inside the lower case domain. As such, in the impossibility of licensing by case, it must resort to the next best licensing strategy. The adjacency requirement emerges as a consequence of a way to satisfy the need of a nominal to be licensed.

In this section, we applied Branan's theory to the adjacency requirement that BNs in object position must obey in Wolof. However, this analysis could not be extended to Wolof without qualification, given that the language also allows for FNs to occur in the object position, but without imposing an adjacency requirement on them. In order to solve this issue, I proposed

that BNs and FNs occupy different positions in the syntactic struture. I tried to provide empirical support to this proposal based on scope and predicate focus facts.

In the next section, we apply Branan's theory to applicatives and ditransitives. First, the general properties of these constructions in Wolof are surveyed.

4.2 Addition of an intermediate argument

Branan's analysis of nominal licensing in Kikuyu can readily be extended to account for the effect that an additional low argument has in the licensing of BNs. To recall, if a causee, goal, or applied argument is present in the sentence, a BN direct object does not have to be adjacent to the verb. This is schematized in (43), where 'APPL' stands for the intermediate non-core argument that is introduced between the subject and the BN object.

(43) i. SUBJECT − VERB − **THEME**$_{BN}$ − APPL

     ii. SUBJECT − VERB − APPL − **THEME**$_{BN}$

(43i) is the expected linear order, taking the adjacency condition into consideration, as the BN theme is indeed adjacent to the verb. However, (43ii) is also an attested word order, where the BN is separated from the verb by the additional non-core argument. Data like (43ii) thus diverges from the requirement that the a BN theme be the immediately next to the verb.

If the flexible word possibilities in (43) is the result of movement, than we would be hard-pressed to apply Massam's (2001) analysis to Wolof, since, in this analysis, the adjacency requirement is the result of the BN's inability to move. I will argue below that the two word orders available in (43) are the result of scrambling. Indeed, Harris (2015) shows that, at least in Wolof applicatives, (43ii) is the underlying order, with (43i) resulting from displacing the object (which, incidentally, ends up adjacent to the verb). Conversely, a dependent case theory like Branan's is well-equipped to deal with data like those schematized in (43), since the newly introduced non-core argument can act as a case competitor for the BN theme, freeing it from having to resort to verb adjacency to be licensed.

Before we apply this analysis though, we must look into the properties of these three-argument constructions. Specifically, because c-command is relevant in the computing of case marking (under a dependent case theory), we must determine the hierarchical relationships among the arguments in the aforementioned constructions. Harris (2015, ch. 3) provides a detailed description of the structural properties of applicatives and ditransitives in Wolof. Harris's c-command arguments are based on variable and reflexive binding, as well as on weak crossover effects. For convenience, I reproduce some of the relevant data here. (I have adapted the morphological analysis and glosses for uniformity.)

The first c-command test employed by Harris is variable binding. (44) shows the basics of variable binding in Wolof. The (a) examples in (45) and (46), respectively, show that goals and applied arguments can bind a variable contained in the theme if the former precedes the latter. The (b) examples in turn show that no variable binding obtains if the theme precedes the intermediate argument. The examples (47) and (48) show that the theme can bind the intermediate argument only if it precedes it.[10]

(44) *Variable binding baseline*

    a. Góor g-u   nekk$_i$ nob-na   jabar=am$_i$.
        man CM.SG-COMP exist love-NA.3SG wife=POSS.3SG

---

[10]Some of the data regrettably reproduce some gender stereotypes.

'Every man$_i$ loves his$_i$ wife.'

b. * Jëkër=am$_i$ nob-na   jabar b-u   nekk$_i$.
    husband=POSS.3SG love-NA.3SG wife   CM.SG-COMP exist
    Int.: 'Her$_i$ husband loves every wife$_i$.'
    (Harris, 2015, p. 86)

(45) *Variable binding in ditransitive*

a. Yóonee-na-a góor g-u   nekk$_i$ xaalis=am$_i$.
    send-NA-1SG man CM.SG-COMP exist   money=POSS.3SG
    'I sent every man$_i$ his$_i$ money.'

b. Yóonee-na-a xaalis=am$_{*i/j}$ góor g-u   nekk$_i$.
    send-NA-1SG money=POSS.3SG man CM.SG-COMP exist
    'I sent his$_{j/*i}$ money to every man$_i$.'
    (Harris, 2015, p. 88ff)

(46) *Variable binding in applicative construction*

a. Bind-al-na-a   góor g-u   nekk$_i$ bataaxal=am$_i$.
    write-APPL-NA-1SG man CM.SG-COMP exist   letter=POSS.3SG
    'I wrote his$_i$ letter on behalf of every author$_i$.'

b. Bind-al-na-a   bataaxal=am$_{*i/j}$ góor g-u   nekk$_i$.
    write-APPL-NA-1SG letter=POSS.3SG man CM.SG-COMP exist
    'I wrote his$_{j/*i}$ letter on behalf of every author$_i$.'
    (Harris, 2015, p. 88)

(47) *Variable binding in ditransitive*

a. Yoonee-na-a téere b-u   nekk$_i$ bindekat=am$_i$.
    send-NA-1SG book CM.SG-COMP exist   writer=POSS.3SG
    'I sent every book$_i$ to its$_i$ author.'

b. Yoonee-na-a bindekat=am$_{*i/j}$ téere b-u   nekk$_i$.
    send-NA-1SG writer=POSS.3SG book CM.SG-COMP exist
    'I sent every book$_i$ to its$_{*i/j}$ author.'
    (Harris, 2015, p. 89)

(48) *Variable binding in applicative*

a. Bind-al-na-a   téere b-u   nekk$_i$ bindekat=am$_i$.
    write-APPL-NA-1SG book CM.SG-COMP exist   author=POSS.3SG
    'I wrote every book$_i$ for its$_i$ author.'

b. Bind-al-na-a   bindekat=am$_{*i/j}$ téere b-u   nekk$_i$.
    write-APPL-NA-1SG author=POSS.3SG book CM.SG-COMP exist
    'I wrote every book$_i$ for its$_{*i/j}$ author.'
    (Harris, 2015, p. 89)

The second c-command diagnostic employed by Harris is reflexive binding. (49) and (50) show that the intermediate argument can be an antecedent binding the theme argument in applicative and ditranstive sentences, respectively. These data also show that, if the reflexive theme precedes the intermediate argument, binding does not go through.

(49) *Reflexive binding in ditransitive*

    a.   Wan-na-a   Boris$_i$ bopp=am$_i$.
        show-NA-1SG Boris head=POSS.3SG
        'I showed Boris$_i$ himself$_i$.'

    b. * Wan-na-a   bopp=am$_{*i/j}$ Boris$_i$.
        show-NA-1SG head=POSS.3SG Boris
        Lit.: 'I showed himself$_i$ to Boris$_i$.'
        (Harris, 2015, p. 92; adapted)

(50) *Reflexive binding in applicative*

    a.   Sang-al-nga   Boris$_i$ bopp=am$_i$.
        wash-APPL-NA.2SG Boris head=POSS.3SG
        'You washed himself$_i$ for Boris$_i$.'

    b. * Sang-al-nga   bopp=am$_{*i/j}$ Boris$_i$.
        wash-APPL-NA.2SG head=POSS.3SG Boris
        Lit.: 'You washed himself$_{*i/j}$ for Boris$_i$.'
        (Harris, 2015, p. 92; adapted)

Due to the word order alternations available in Wolof (see schema in (43)), these data do not in fact allow us to tell unequivocally whether the intermediate argument (goal or applied argument) c-commands the theme argument. It could be the case, for instance, that, in a pair of sentences like (45) the theme (*his money*) is underlyingly c-commanded by the goal (*every man*), so that, if the former scrambles over the latter, the c-command relationship required for binding is disrupted. Alternatively, it could also be the case that the theme underlyingly c-commands the goal, so that binding simply cannot go through.

That is where Harris's third diagnostic becomes relevant, namely, weak crossover. (51) shows the basics of weak crossover in Wolof. In the (a) examples of (52) and (53), we see that the intermediate argument can be *Wh*-moved and be coindexed with a pronoun contained in the theme without causing a weak crossover violation. This fact can be accounted for straightforwardly if the intermediate argument asymmetrically c-commands the theme, so that the former does not cross the latter on its way to Spec-CP. Corroborating evidence for this analysis is provided by the (b) examples in the same sentences, where the *Wh*-phrase is now the theme and pronoun is contained within the intermediate argument. A weak crossover violation is induced in these sentences. Again, this state of affairs can be straightforwardly accounted for if the intermediate argument c-commands the theme, so that, if the latter *Wh*-moves, a weak crossover violation is incurred.

(51) *Weak crossover baseline*

    a. B-an yaay$_i$ mo   *t* nob doom=am$_i$?
       which mother FOC.3SG love child=POSS.3SG
       'Which mother$_i$ loves her$_i$ child?'

    b. B-an   doom$_i$ yaay=am$_{*i/j}$ mo   nob *t$_i$* ?
       which child   mother=POSS.3SG FOC.3SG love
       Which child$_i$ does his$_{*i/j}$ mother love?'
       (Harris, 2015, p. 95ff)

(52) *Weak crossover in ditransitive*

<div align="center">23</div>

a. G-an   góor$_i$ nga yónnee t_i bataaxal=am$_i$?
which man 2SG send   letter=POSS.3SG
'Which man$_i$ did you send his$_i$letter?'

b. Bataaxal-u k-an$_i$ nga yónnee bindekat=am$_{*i/j}$ t_i?
letter-GEN CM.SG-who 2SG send   author=POSS.3SG
'Whose$_i$ letter did you send to its$_{*i/j}$ author?'

([Harris], 2015, p. 97)

(53) *Weak crossover in applicative construction*

a. B-an jigéen$_i$ nga   rey-al t_i xar=am$_i$?
which woman 2SG.OFOC kill-APPL   sheep=POSS.3SG
'For which woman$_i$ did you kill her$_i$ sheep?

b. Xar-u   k-an$_i$ nga rey-al   borom=am$_{*i}$ t?
sheep-GEN who 2SG kill-APPL owner=POSS.3SG
'Whose sheep$_i$ did you kill for his/her$_{*i/j}$ owner?'

([Harris], 2015, p. 98)

We are now in the position to tease apart the potential analyses for the binding data above. We have concluded from the weak crossover data just examined that the intermediate argument c-commands the theme. If this is the underlying structure, we can explain the impossibility of the theme binding the intermediate argument not as a matter of base-generation, but as a consequence of A-scrambling and the subsequent impossibility of A-reconstruction for Condition A.

Some of these c-command diagnostics can be applied to causative constructions as well. (54) shows that the causee argument can be a quantifier that binds a pronoun in the lower theme, though this is not possible if the order of these intermediate arguments is reversed. (55) shows the same, but with reflexive binding. Regrettably, I was not able to reproduce reliably the weak crossover data. By assumption, however, the thematic relations are more appropriately accounted for if the causee is base-generated above the theme.

(54) *Variable binding in causative*

a. Jàngalekat y-i   nataal-loo-na-ñu   xale b-u   nekk xaj-am.
teacher   CM.PL-DEF draw-CAUS-NA.3SG child CM.SG-COMP exist dog=POSS.3SG
'Awa made every student draw their dog.'

b. * Jàngalekat y-i   nataal-loo-na-ñu   xaj=am   xale b-u
teacher   CM.PL-DEF draw-CAUS-NA.3SG dog=POSS.3SG child CM.SG-COMP
nekk.
exist
Int.: 'Awa made every student draw their dog.'

(55) *Reflexive binding in causative*

a. Awa nataal-loo-na   xale y-i   seen   bopp.
Awa draw-CAUS-NA.3SG child CM.PL-DEF POSS.3PL head
'Awa made the students draw themselves.'

b. * Awa nataal-loo-na   seen   bopp xale y-i.
Awa draw-CAUS-NA.3SG POSS.3PL head child CM.PL-DEF
Int.: 'Awa made the students draw themselves.'

The c-command diagnostics surveyed above suggest that ditransitive goals, applied arguments, and causees c-command the theme argument. This structural relationship can be diagrammed as in (56) (cf. Branan's proposal, reproduced in (27)). This structure is basically identical to what Harris (2015) proposes to applicatives and ditransitives in Wolof. (This is also the structure generally assumed for applicative constructions; see Pylkkänen 2008.) Given the similarities between applicatives and ditransitives, on the one hand, and causatives, on the other in Wolof, I assume that all constructions have a similar structure. This implies that causatives in this language have a fairly reduced structure, a possibility argued for, for instance, by Folli & Harley (2007).

(56)

VoiceP *higher case domain*

    DP *SUBJECT* Voice′

    Voice $-\varnothing_{ditr}/-al_{appl}/-loo_{caus}$ vP *lower case domain*

    DP *APPL/GOAL/CAUSEE* v′

    v VP

    V DP *OBJECT*

✓ *case competition*
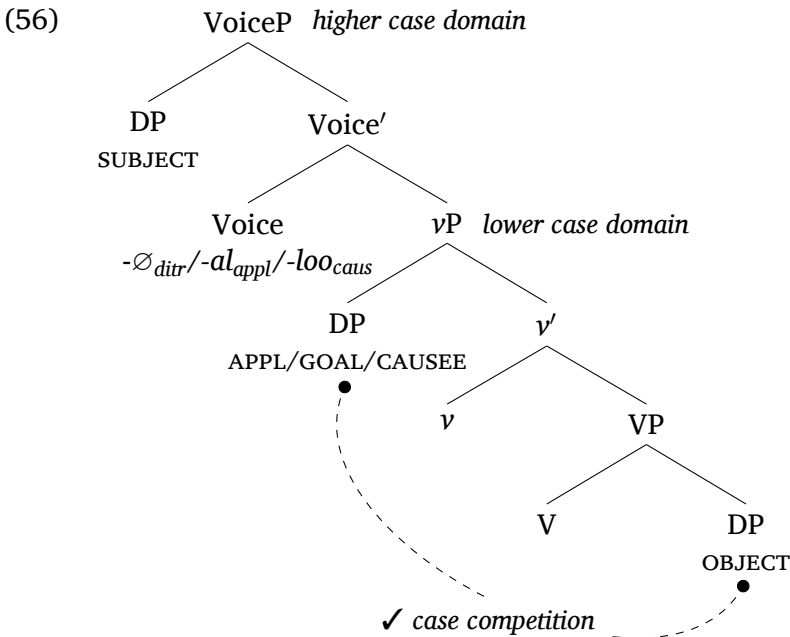
Following Branan's analysis, the newly introduced argument in the lower case domain (the goal, applied, or causee argument) allows the BN theme to be assigned case, freeing it from the adjacency requirement. This would be why it is possible not only for a theme BN can surface immediately following the verb (and it is then followed by the other intermediate argument), but also for the other argument to intervene between the verb and the BN theme.

This proposal makes two predictions, both of which can be tested in Wolof. First, in (56), as Branan emphasizes, the higher object is case-licensed by virtue of occupying an edge position at the lower case domain, so that it is accessible to the subject, even though the latter belongs to a different case domain. A prediction that emerges from this proposal is that the subject should be accessible to the goal, applied, and causee argument for other processes. This can be seen in both reflexive binding (57) and variable binding (58) structures, where the subject binds a goal, applicative, or causee argument.

(57)   a. *Ditransitive*

      Mareem jox-na   bopp=am   a-b   oto b-u   bees.
      Mareem give-NA.3SG head=POSS.3SG CM.SG-INDEF car CM.SG-COMP new
      'Mareem gave herself a new car.'

   b. *Applicative*

Xale y-i jàngal-na-ñu seen bopp a-b taalif.
child CM.PL-DEF read-APPL-NA-3PL POSS.3PL head INDEF-CM.SG poem
'The children read themselves a poem.'

   c. *Causative*

Faatu nataa-loo-na bopp=am a-k garab.
Faatu draw-CAUS-NA.3SG head=POSS.3SG INDEF-CM.SG tree
'Faatu made herself draw a tree.'

(58) a. *Ditransitive*

Bindakat b-u nekk wan-na taalif=am Roxaya.
writer CM.SG-COMP exist show-NA.3SG poem=POSS.3SG Roxaya
'Every writer$_k$ showed their$_k$ poem to Roxaya.'

   b. *Applicative*

Jàngalekat b-u nekk jàngal-na taalif=am Roxaya.
teacher CM.SG-COMP exist read-APPL-NA.3SG poem=POSS.3SG Roxaya
'Every teacher$_k$ read their$_k$ poem to Roxaya.'

   c. *Causative*

Yaay j-u nekk nataa-loo-na doom=am Kadeer.
mother CM.SG-COMP exist draw-CAUS-NA.3SG child=POSS.3SG Kadeer
'Every mother$_k$ made Kadeer draw her$_k$ child.'

    Second, Branan's analysis also implies that a theme in a three-argument structure is not itself incompatible with case licensing via dependent case assignment. Rather, the issue is that there is no case competitor in the case assignment domain the theme belongs to. As a result, if a BN that is interpreted as the theme occupies a position where the subject is accessible, the result should be grammatical even if the adjacency requirement is not obeyed. The reason is that the subject can act as a case competitor to license the theme, freeing it from having to be adjacent to the verb. This prediction can be tested in causativized unaccusatives.[11] (59a) shows that the adverb *ndanka ndanka* 'slowly' can occur between the causativized version of a presumably unaccusative verb (*seey* 'melt') and a full nominal theme (*xeer yi* 'the stone'). (59b) in turn shows that the same arrangement is also possible when the theme argument is a BN – recall from (5b) and (6b) that the adjacency requirement is operative in simple (i.e. non-causativized) transitives.[12]

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[11]Because of their own nature, ditransitives cannot be used to verify this prediction, as they necessarily include three arguments. Applicatives of unaccusatives could have been tested as well, though I regrettably did not.

    [12]Regrettably, the adverbs chosen could be modifying the embedded verb as well, as (i) shows:

(i) Xeer b-i seey-na ndanka ndanka.
    stone CM.SG-DEF melt-CAUS-NA.3SG slowly slowly
    'The stone melted slowly.'

This is also shown in the interpretation provided for the causative sentence in (ii), where the adverb *ndanka ndanka* was interpreted as modifying the embedded verb. (The consultant was asked who in the sentence was patient.)

(ii) Xale b-i nelew-loo-na ndanka ndanka xaj b-i.
    child CM.SG-DEF sleep-CAUS-NA.3SG slowly slowly dog CM.SG-DEF
    'The child made the dog [sleep patiently (lit. slowly)].'

Nonetheless, what (59b) does show is that the adjacency requirement can be overcome in causatives of unaccusatives.

(59) a. Awa seey-loo-na   ndanka ndanka xeer y-i.
         Awa melt-CAUS-NA.3SG slowly   slowly   stone CM.PL-DEF
         'Awa slowly melted the stones.'

      b. Awa seey-loo-na   ndanka ndanka **xeer**.
         Awa melt-CAUS-NA.3SG slowly   slowly   stone
         'Awa slowly melted a stone.'

In order to account for the lack of adjacency effects in (59b), we can assume the structure in (60), where the causative *-loo* (modeled here as the head of VoiceP) merges with an unaccusative VP. This VP is presumably not a phase nor a domain of case assignment, so the subject (the causer in Spec-VoiceP) can assign dependent case to the theme. The BN theme can thus be licensed, regardless of the intervention of *ndanka ndanka*. Here, I assume that an unaccusative VP is not a phase. If we equate domains of case assignment with phases (Baker, 2014a), this VP is not going to be a domain of case assignment. Legate 2003, however, argues against the claim that unaccusative VPs are not phases.

(60)
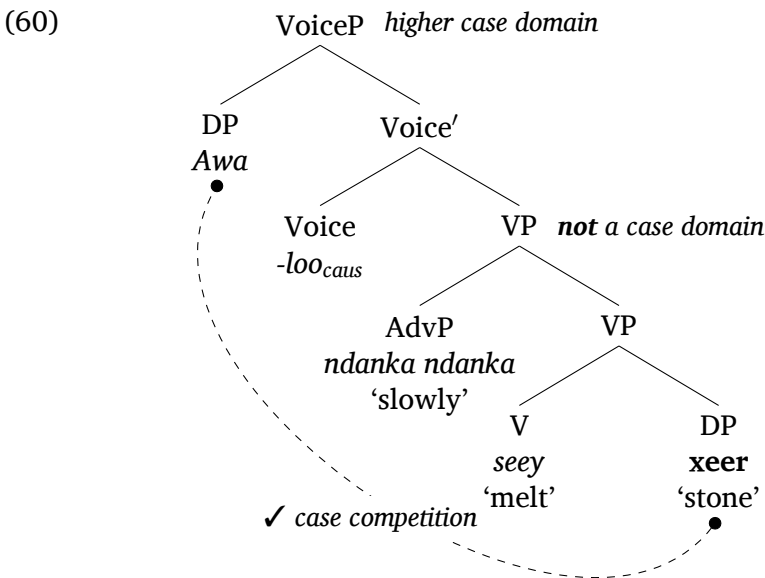
In this section, we took a closer look at some three-argument constructions in Wolof (specifically, ditransitive, applicatives, and causatives) and extended Branan's case licensing analysis based on Kikuyu to Wolof BNs. This analysis provided an explanation as to why BN themes do not have to comply with the adjacency requirement once a goal, applied, or causee argument is added into the sentence. However, this proposal does not offer an explanation as to why the BN cannot be the higher of the two objects (see the paradigms on p. 33):

(61) a. * Jox-na-a   **xaj** bal b-i.
         give-NA-1SG dog ball CM.SG-DEF
         Int.: 'I gave a dog the ball.'

      b. * Jox-na-a   bal b-i   **xaj**.
         give-NA-1SG ball CM.SG-DEF dog

Int.: 'I gave a dog the ball.'

Recall also that it cannot be the case that both the intermediate and the theme arguments be bare (at least as far as ditransitive constructions are concerned):

(62) a. * Góór g-i   jox-në   **muus xale**.
          man CM.SG-DEF give-NA.3SG cat   child
          Int.: 'The man gave a child to a cat.'   [= (80)]
      b. * Góór g-i   jox-në   **xale muus**.
          man CM.SG-DEF give-NA.3SG child cat
          Int.: 'The man gave a cat to a child.'
          (Harris, 2015, p. 118)

Following the logic of Branan's analysis, the ill-formedness of these sentences thus cannot be caused by case, as the intermediate argument, being at the edge of a case assignment, can not only act as a case competitor for the BN theme, but it is also visible to the subject to be case licensed by that c-command relationship.

4.3   Ā-movement

Another way for a BN to be freed from the adjacency requirement is for it to be Ā-moved. Ā-movement, furthermore, can be achieved in two ways: clefting or relativization. We start with clefting, an example of which is repeated below.

(63) **Taalif** la   xale y-i   binda __.
      poem FOC.OBJ.3SG child CM.PL-DEF wrote
      'It is a poem that the children wrote.'   [= (11)]

That clefting is derived by movement is indicated on the basis of its island-sensitivity. (64) and (65) show, respectively, that a phrase cannot be clefted out of a relative or *Wh*-island.

(64) *Relative clause island*
      a. Gis-na-a   a-b   téere [b-u   Roxaya jox **xale y-i**   ].
          see-NA-1SG INDEF-CM.SG book [CM.SG-COMP Roxaya give child CM.PL-DEF]
          'I saw a book that Roxaya gave the children.'
      b. * **Xale y-i**   la   gis a-b   téere [b-u   Roxaya jox __].
          child CM.PL-DEF COP.3SG see INDEF-CM.SG book [CM.SG-COMP Roxaya give   ]
          Lit.: 'It was the children who I saw a book that Roxaya gave.'

(65) Wh-*island*
      a. Mangi   xalat [k-an   moo jox Kadeer **téere b-i**   ].
          PROGR.1SG think [CM.SG-WH MOO give Kadeer book CM.SG-DEF]
          'I wonder who gave Kadeer this book.'
      b. * **Téere b-i**   la   mangi   xalat [k-an   moo jox Kadeer __].
          book CM.SG-DEF COP.3SG PROGR.1SG think [CM.SG-WH MOO give Kadeer   ]
          Lit.: 'It is the book that I wonder who gave Kadeer.'

Once again, we can readily extend Branan's analysis of Kikuyu to Wolof. Under conservative assumptions, clefting is a type of Ā-movement that requires a stop-over position at phase edges like Spec-*v*P. This intermediate position allows the subject in Spec-Voice to act as a case competitor for the BN at Spec-*v*P. The BN can thus be licensed by case assignment, dispensing with adjacency with the verb.

Another type of Ā-movement that can act as a last resort strategy to prevent a BN direct object from having to comply with the adjacency requirement is relativization. More speficically, if a BN subcategorized by a transitive verb is modified by a relative clause, then there can be an adverb intervening between the BN and the verb.

(66) Jàngalekat b-i   jàng-na   { cikaw } **taalif** [b-u   Kadeer bind] {
      teacher   CM.SG-DEF read-NA.3SG { loudly } poem [CM.SG-COMP Kadeer write] {
      cikaw }.
      loudly }
      'The teacher read loudly a poem that Kadeer wrote.'   [= (12b)]

It is important to notice that, when a BN is modifed by a relative clause, it retains its narrow scope indefinite interpretation. In (67), the full nominal indefinite modified by a relative clause can scope above or below the intensional predicate *bëgg* 'want'.

(67) a. Sama   doom bëgg-na   jàng a-b   téere [b-u   Mariama Ba
          POSS.3SG child want-NA.3SG read INDEF-CM.SG book [CM.SG-COMP Mariama Ba
          bind], *Une si longue lettre* la   tuddu.
          write] *Une si longue lettre* COP-3SG name
          'My child wants to read a book that Mariama Ba wrote. Its title is *So long a letter*.'
                                                                            ∃ >*want*
      b. Sama   doom bëgg-na   jàng a-b   téere [b-u   Mariama Ba
          POSS.1SG child want-NA.3SG read INDEF-CM.SG book [CM.SG-COMP Mariama Ba
          bind], waaye bu mu am   baax-na.
          write] but   BU 3SG have good-NA.3SG
          'My child wants to read a book that Mariama Ba wrote, but it does not matter which.'
                                                                            want> ∃

Conversely, in (68), what the relative clause modifies is a BN. In that case, only a narrow scope reading is available (68b).

(68) a. Roxaya bëgg-na   gisee **woykat** [b-u   dëkk Senegal]. # Wally Seck
          Roxaya want-NA.3SG meet singer   [CM.SG-COMP from Senegal] # Wally Seck
          la   tuddu.
          COP.3SG name
          'Roxaya wants to meet a singer who is from Senegal. # His name is Wally Seck.'
                                                                            ∃ >*want*
      b. Mary bëgg-na   gisee **woykat** [b-u   dëkk Senegal], waaye bu mu
          Mary want-NA.3SG meet singer   [CM.SG-COMP from Senegal] but   BU 3SG
          am   baax-na.
          meet good-NA.3SG
          'Mary wants to meet a singer who is from Senegal, and any will be good.'
                                                                            want> ∃

I assume Torrence's (2013a) raising analysis of relative clauses in Wolof (see overview of a raising analysis of relative clauses in Bhatt 2002). Torrence bases his claim on reconstruction effects and Wolof-specific diagnostics. Before the raising of the head of the relative, the relative clause CP looks as follows:

(69)
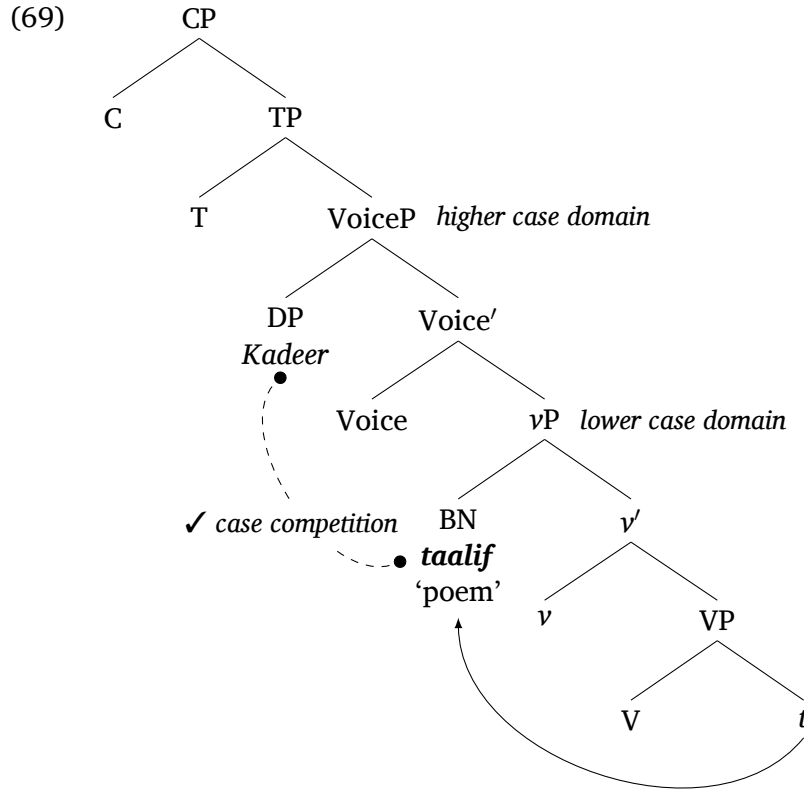
In order to raise out of the relative clause, the BN must first move through the edge of the phase that contains, Spec-*v*P. According to Branan's proposal, this suffices to bring the direct object close enough for the subject to case-license it. As such, a BN modified by a relative clause does not have to obey the adjacency condition because it is assigned case inside the relative clause before moving out of it. That Ā-movement allows a nominal to be licensed (or, more precisely, case-licensed) has already been argued for by Abramovitz (2020) and Akkuş (2019).[13]

4.4 Interim summary

In this section, we applied Branan's (to appear) case licensing framework to BNs in object position. A stipulation about a difference in the syntactic position occupied by BN and FN objects was necessary in order to account for their differences in distribution. I tried to support this stipulation

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[13]More discussion is necessary regarding the specific case properties of the head of the relative in Wolof. What I claim here is that the case assignment of a BN is internal to the relative clause – externally to the relative clause, there is no case assignment. Ideally, there would be some morphological reflex of case assignment in support of this analysis. Regrettably, Wolof data with mismatching case properties in the relative clause gap and the position occupied by the head of the relative clause (e.g. gap in the subject position and head in the object position) were not reliable. A comparison between the morphosyntax of relative clauses in Wolof (as analyzed here) and the case properties of relative clauses crosslinguistically is also called for. Thank you to David Pesetsky (p.c.) for raising this issue.

on the basis of scope and word order considerations. Branan's theory could otherwise be extended unmodified to three-argument construction and Ā-movement.

In the next section, we turn to BNs in the subject position. To recall, a hallmark of PNI is the impossibility of the PNI-ed nominal to occupy that position. While I do not have an analysis for this impossibility, I will show how Branan's nominal licensing framework can help us rule out a possible analysis.

4.4.1 A note on BNs in the subject position

Recall that BNs in Wolof cannot be the subject of a finite clause:

(70) a. * **Sasfam** fatte-na   tej   palanteer=am.
       nurse   forget-NA.3SG close window=POSS.3SG
       Int.: 'A nurse forgot to close his;her window.'   [= (14a)]

   b. * Kumba wax-na   [ne   **muus** lekk-na   a-b   janax   ].
       Kumba say-NA.3SG [COMP cat   eat-NA.3SG INDEF-CM.SG mouse]
       Int.: 'Kumba said that a cat ate a mouse.'   [= (15)]

In a case-licensing analysis, the prediction is that these sentences should be grammatical, since the highest nominal in a given domain of case assignment can be assigned unmarked case (in Wolof, nominative case). This should suffice to allow the BN to be licensed with case. Why then are the sentences in (70) ungrammatical?

While it does not provide us with a particular analysis of (70)'s ill-formedness, the logic of a dependent case theory of PNI does allow us to identify what *cannot* be the culprit. More precisely, case assignment cannot be the problem, since, as just mentioned, the subject of a finite clause is indeed a position where a nominal can be assigned unmarked case. In §4.3, I argued that relativization was one of the strategies a BN could employ to be assigned case, allowing it to do away with the adjacency requirement. The prediction that falls out from this analysis is thus that the addition of a relative clause will still not allow a BN to be a subject if its licensing does not have anything to do with case. This prediction is correct.

(71) shows that a FN modified by a relative clause can be the subject of a finite clause, while (72) shows that this is not possible for a BN under the same conditions.

(71) a. A-b   muus [RC b-u   Isaa bëgg] lekk-na   ginaar g-i.
       INDEF-CM.SG cat   [CM.SG-COMP Isaa like] eat-NA.3SG chicken CM.SG-DEF
       'A cat that Isaa likes ate the chicken.'

   b. Xadi xalaat-na   [ne   a-y   ndonggo darra [RC y-u   Samba
       Xadi think-NA.3SG [COMP INDEF-CM.PL student   [CM.PL-COMP Samba
       xam] daw-na-ñu ci   baayal b-i   ].
       know] run-NA-3PL PREP park   CM.SG-DEF]
       'Xadi thinks that some students who Samba knows run in the park.'

(72) a. * **Muus** [RC b-u   Isaa bëgg] lekk-na   ginaar g-i.
       cat   [CM.SG-COMP Isaa like] eat-NA.3SG chicken CM.SG-DEF
       Int.: 'A cat that Isaa likes ate the chicken.'

   b. * Isaa wax-na   [ne   **fécckat** [RC b-u   ma   xam] fécc-na
       Isaa say-NA.3SG [COMP dancer   [CM.SG-COMP OBJ.1SG know] dance-NA.3SG
       ci   xeel b-i   ].
       PREP party CM.SG-DEF]

Int.: 'Isaa said that a dancer that knows me danced in the party.'

However, it must be noted that Tamba *et al.* (2012, p. 907) show that this type of example is in fact grammatical in the Wolof dialects they investigate:

(73) A-b   xale / B-enn   xale / **Xale** [b-u   njool] dem-na.
     INDEF-CM.SG child / CM.SG-one child / child [CM.SG-COMP tall   ] leave-NA.3SG
     'A tall child left.'

(Tamba *et al.* , 2012, (38))

I do not have an explanation for these data. I note, nevertheless, that this pattern is similar to what Dayal (2004) dubs 'licensing by modification', where a given phrase cannot occur in a certain syntactic position, unless it is merged with some modifier. A typical instantiation of this pattern that Dayal mentions is bare nominals in Italian, which cannot occur in the subject position, unless they are modified by a relative clause.

To reiterate, the analysis put forth here leads us to hypothesize that case assignment is not the problem faced by the ungrammatical sentences in (70). If what relativizing a BN does is allow it to be assigned case transformationally, if case is not what is preventing a BN from occurring in the subject position, then relativizing it is not expected to improve the resulting's sentence grammaticality.

However, nothing has been said so far what is indeed causing the ill-formedness of sentences where the subject is BN. While I will not provide an answer to this question, focalization sentences may be informative. Unlike what happens to BNs in object position, there is a divide in what happens when a BN in the subject position is Ā-moved. To recall once again, relativizing or clefting an object BN allowed it not to have to be adjacent to the verb. Conversely, however, while a relative clause does not allow a BN to occur in subject position, clefting does:

(74) a. **Jàngalekat** a   __ lekk ginaar   g-i.
        teacher   FOC.SUBJ   eat chicken CM.SG-DEF
        'It was a teacher who ate the chicken.'
     b. **Woykat** a   __ ñëw.
        singer   FOC.SUBJ   arrive
        'It is a teacher who arrived.'
     c. **Woykat** a   __ féey.
        singer   FOC.SUBJ   swim
        'It is a teacher who swam.'

This contrast can perhaps be understood if we take into consideration that there is no overt φ-morphology in focalization constructions. This can be shown in sentences where a full nominal is focalized; whether it is singular or plural, the morphosyntax of the overall sentence remains unchanged.

(75) a. Mareem a   __ lekk ginaar   g-i.
        Mareem FOC.SUBJ   eat   chicken CM.SG-DEF
        'It is Mareem that ate the chicken.'
     b. Jàngalekat y-i   a   __ lekk ginaar   g-i.
        teacher   CM.PL-DEF FOC.3SG   eat   chicken CM.SG-DEF
        'It is the teachers who ate the chicken.'

It may also be worth noting that BNs can occur in the predicate position where they are also not cross-referenced by φ-morphology (what indeed is in (76) is the subject *xale yi* 'the children').

(76) a. Xale y-i   a-y   sàcc l-a-ñu.
          child CM.PL-DEF INDEF-CM.PL thief *l*-COMP-3PL
          'The children are thieves.'

      b. Xale y-i   **sàcc** l-a-ñu.
          child CM.PL-DEF thief *l*-COMP-3PL
          'The children are thieves.'

          (Martinović, 2020, (8))

Taken together, these data could be suggesting that the reason why a BN cannot be the subject of sentences like those in (70) (or those in (72), where a relative clause is added) is that the subject there is indeed cross-referenced by φ-features, but a BN is unable to do so. If the φ-requirement is taken away, as in clefting (74) and predicational (76) sentences, the result can converge.

Needless to say, more work needs to be done on the inability of BNs to occur in the subject position. The dependent case analysis put forth here nevertheless allowed us to identify a possible line of investigation. In the next section, I consider a possible extension and refinement of the hypothesis that BNs cannot be cross-referenced by a set of φ-features.[14]

4.4.2 A note on BNs as the intermediate argument

Besides the subject position, BNs in Wolof cannot occupy another higher position, namely, that of the intermediate argument in three-argument constructions. In the ditransitive, applicative, and causative data examined in §4.2, the BN was the theme argument. Another aspect of the distribution of BNs in Wolof is that they cannot be the higher of the two internal arguments; this description obtains irrespective of word order.

(77) *BN cannot be goal of ditransitive*

      a. * Jox-na-a   **xaj** bal b-i.
          give-NA-1SG dog ball CM.SG-DEF
          Int.: 'I gave a dog the ball.'

      b. * Jox-na-a   bal b-i   **xaj**.
          give-NA-1SG ball CM.SG-DEF dog
          Int.: 'I gave a dog the ball.'

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[14]A fully fledged analysis must take into account the fact that a BN in Wolof can indeed occur in the subjectt position if it is embedded within coordination:

(i) a. **Xale** ak **jàngalekat** woy-na-ñu ci   daara j-i.
         child with teacher   sing-NA-3PL PREP school CM.SG-DEF
         'A child and a teacher sang in the school.'

     b. **Xale** ak a-b   jàngalekat woy-na-ñu ci   daara j-i.
         child with INDEF-CM.SG teacher   sing-NA-3PL PREP school CM.SG-DEF
         'A child and a teacher sang in the school.'

This pattern resembles what Landau (2007) observes in the distribution of BNs in Romance languages like Italian. The author's solution is based on a particular view of the EPP, which requires that the head of the phrase that satisfies this feature be phonologically overt. What coordination does is provide a head with this property (*ak* in (i)).

This analysis of the EPP is also consistent with the fact that adding a relative clause to the BN in subject position does not yield rescuing effect: presumably, the relative clause does not change the phonological status of the head of the BN.

(78) *BN cannot be applied argument*

    a.   * Ndonggo darra y-i   desin-al-na-ñu **jàngalekat** flër   b-i.
          student   CM.PL-DEF draw-NA-3PL teacher   flower CM.SG-DEF
          Int.: 'The students drew a teacher the flower.'

    b.   * Ndonggo darra y-i   desin-al-na-ñu flër   b-i   **jàngalekat**.
          student   CM.PL-DEF draw-NA-3PL flower CM.SG-DEF teacher
          Int.: 'The students drew a teacher the flower.'

(79) *BN cannot be causee*

    a.   * Jàngalekat b-i   janga-loo-na   **ndonggo darra** taalif b-i.
          teacher   CM.SG-DEF read-CAUS-NA.3SG student   poem CM.SG-DEF
          'The teacher made a student read the poem.'

    b.   ?? Jàngalekat b-i   janga-loo-na   taalif b-i   **ndonggo darra**.
          teacher   CM.SG-DEF read-CAUS-NA.3SG poem CM.SG-DEF student
          'The teacher made a student read the poem.'

Additionally, it cannot be the case that both objects are BNs, at least in applicative constructions. (Regrettably, I do not have equivalent ditransitive and causative data.)[15]

(80)   a.   * Góór g-i   jox-në   **muus xale**.
          man CM.SG-DEF give-NA.3SG cat   child
          Int.: 'The man gave a child to a cat.'

    b.   * Góór g-i   jox-në   **xale muus**.
          man CM.SG-DEF give-NA.3SG child cat
          Int.: 'The man gave a cat to a child.'
          (Harris, 2015, p. 118)

Because BNs can be themes, it seems reasonable to hypothesize that the ungrammaticality of (80) reduces to the ungrammaticality of (77b), (79), and (78), where only the higher of the two internal arguments is a BN.

    Once again, while I cannot offer a fully fledged analysis of this impossibility in this paper, we can consider what the analysis proposed can afford us. Following the logic of Branan's nominal licensing framework, the ill-formedness of these sentences thus cannot be caused by case, as the intermediate argument, being at the edge of a case assignment domain, can not only act as a case competitor for the BN theme, but it is also visible to the subject to be case licensed by that c-command relationship (see diagram in (56)).

    Moving away from a case solution then, I suggest that the impossibility of a BN to be the intermediate argument has to do with the nature of that position, at least as far as applicative and ditransitive constructions are concerned. Specifically, I adopt Adger & Harbour's (2007) proposal that an applied argument must have a [PARTICIPANT] feature:

(81)   The specifier of Appl must be instantiated with the [PARTICIPANT : __] feature.

    (Adger & Harbour, 2007, p. 21)

The empirical motivation for this restriction imposed on the applied arguments is ill-formed sentences like (82), where the ill-formedness is correlated with the fact that the applied argument (*conference*) is not [+HUMAN].

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[15]Thank you to [redacted] for bringing my attention to this logical possibility.

(82) ? We sent the conference the abstract.

   (Adger & Harbour, 2007, (62))

The reason sentences like (77) and (78) are ungrammatical would be that the BN cannot satisfy the requirement stated in (82). In order to account for why a BN cannot be a causee (79), we would have to extend the [PERSON] condition in (81) to causative sentences in Wolof, though it is not clear to me why this should be the case.

   We could tie a BN's inability to be an intermediate argument in three-argument constructions to the fact that BNs cannot occur in the subject position either, as discussed in the previous section. More precisely, a φ-feature deficiency postulated for Wolof BNs could account for why they cannot value a full set of φ-features at Spec-TP. If the missing φ-feature is [PERSON], then we could perhaps also account for why BNs cannot be the intermediate argument.[16]

4.5   A comparison with a linearization-based analysis (Baker, 2014b)

As briefly mentioned in the introduction, the main proposal in Massam's (2001) analysis of PNI in Niuean is that the BN theme has a truncated structure and, as a result, it cannot move out of the VP. The BN theme thus remains adjacent to the verb and is pied-piped in predicate fronting.

   Could this analysis tailored to account for Niuean facts be applied to Wolof? The three-argument constructions examined above suggest that it cannot. To recall, Harris (2015) argues, based on weak crossover data (83), that the theme argument is base-generated below the applied argument.

(83)   a. G-an   góor$_i$ nga yónnee t_i bataaxal=am$_i$?
           which man 2SG send   letter=POSS.3SG
           'Which man$_i$ did you send his$_i$ letter?'   [= (52)]
       b. Bataaxal-u k-an$_i$ nga yónnee bindekat=am$_{*i/j}$ t_i?
           letter-GEN CM.SG-who 2SG send   author=POSS.3SG
           'Whose$_i$ letter did you send to its$_{*i/j}$ author?'
           (Harris, 2015, p. 97)

Hence, I assume that, in applicative sentences where the theme precedes the applied argument, the former scrambles over the former, as schematized in (84b).

(84)   a. Awa netali-na   xale y-i   **leep**.
           Awa narrate-NA.3SG child CM.PL-DEF story
           'Awa narrated a story to the children.'   [≈ (7)]
       b. Awa netali-na   **leep**$_k$ xale y-i t_k.
           Awa narrate-NA.3SG story child CM.PL-DEF
           'Awa narrated a story to the children.'

If this analysis is on the right track, it cannot be the case that the adjacency requirement follows from the BN's inability to move – otherwise, the linear order observed in (84b) would incorrectly be predicted to be impossible. As I tried to argue above, a dependent case-based analysis, as that put forth by Branan (to appear), is able to account for the correlation between the bypassing of the adjacency requirement and the addition of a non-core argument between the subject and the

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[16]Ideally, there would be independent support for the claim that BNs in Wolof are φ-defective. I however lack this type of data. Thank you to David Pesetsky (p.c.) for bringing up this issue.

PNI-ed theme. But would there be another PNI theory that could also account for this correlation? Baker's (2014b) analysis emerges as an appropriate contender, since this theory does make room for a more relaxed adjacency requirement. However, in this case, it is correlated not with the introduction of a case competitor, but with the occurrence of V-to-T movement in a PNI language.

The main ingredients in Baker's (2014b) PNI theory are *(i)* the proposal that PNI is derived via head movement from the N^0 of the PNI-ed NP to the V^0 that subcategorizes to it and *(ii)* independently necessary rules of linearization. The adjacency requirement arises as the byproduct of the combination between these components: the only way the aforementioned head movement can occur without giving rise to a contradictory linearization statement is if it is string-vacuous.

Baker assumes the following linearization rules:

(85)   a. If a chain consists of more than one link, then at PF:

       i. Delete the copy that has more features as a result of feature checking, if any (Nunes, 2004).

      ii. If one copy is part of a complex morphological object, delete the other copy (compare the so-called Stray Affix Filter).

     iii. Otherwise, all the ordering statements relevant to both copies must be respected,while still uttering the lexical item only once. (Consequence: the movement must be, in effect, string vacuous.)

   b. 'A complex expression X does not follow a complex expression Y' means that the last element dominated by X does not follow the first element dominated by Y.

    (Baker, 2014b, (29/30))

To flesh out the proposal, consider how Baker analyzes a PNI example like (86), from Sakha.

(86)   *PNI in Sakha*

Min **saharxaj sibekki** ürgee-ti-m.
I   yellow   flower   pick-PAST-1sS
'I picked (a) yellow flower(s).'
(Baker, 2014b, (5a))

(87)   a. I [$_{VP}$ [$_{NP}$ yellow flower] pick] $\xrightarrow{\textit{noun incorporation}}$ I [$_{VP}$ [$_{NP}$ yellow flower] flower + pick]

   b. Ordering at PF: *[where '≤' means 'does not follow' (Baker, 2014b, p. 25)]*

       i. flower ≤ pick in V

      ii. yellow ≤ flower in NP

     iii. NP ≤ V in VP → flower ≤ flower

   (Baker, 2014b, (31))

(87a) depicts the operation which, according to Baker, is derived by N^0-to-V^0 head movement. (87b) represents the linearization statements needed in order to arrive at the surface realization of (86). The linearization statements in (87b-i) and (87b-ii) are determined by language-specific rules (see more details in Baker 2014b). The combined result of these statements is in (87b-iii), where the PNI-ed NP *flower* does not follow itself. Critically, Baker assumes that linearization is stated in terms of 'not-following', instead of in terms of precedence. This would be why *flower ≤ flower*, which results from the head movement that underlies PNI, is not contradictory.

Consider now a derivation of a PNI sentence where the adjacency requirement is not complied with, as in (88).

(88)　*PNI in Sakha*

　　* Misha (serenen) **kumaaqy** xoruopka-qa uk-ta.
　　Misha (carefully) paper　　case-DAT　　put-PAST.3sS
　　'Misha put a paper/papers in the case (carefully).'

(89)　a.　Misha [$_{VP}$ [$_{NP}$ paper] [$_{V'}$ [$_{PP}$ case-DAT] put]] $\xrightarrow{\text{noun incorporation}}$ Misha [$_{VP}$ [$_{NP}$ paper] [$_{V'}$ [$_{PP}$ in case] paper + put]]

　　b.　Ordering at PF:
　　　　i.　paper $\leq$ put in V
　　　　ii.　case-DAT $\leq$ V in V′
　　　　iii.　NP $\leq$ V′ in VP
　　　　iv.　paper $\leq$ case-DAT $\leq$ paper $\leq$ put

　　(Baker, 2014b, (32); adapted)

We see in (89b-iv) that the two copies of PNI-ed nominal *paper* are not adjacent. Rather, they are separated by the dative phrase. As such, a linearization contradiction does arise, since *paper* both precedes and follows the dative phrase. According to this analysis, the PNI example (88) is ungrammatical due to a linearization contradiciton. Alternatively put, the adjacency requirement in Baker's PNI theory is the result of the impossibility of linearizing a derivation where the copies of the PNI-ed nominal are not adjacent to each other – the only case where no contradiction arises.

　　The same explanation carries over to adjacency requirement violations caused by the adverb intervention:

(90)　*The adjacency requirement in Sakha PNI*

　　Masha { türgennik } **salamaat** { *türgennik } sie-te.
　　Masha { quickly　 } porridge　{ *quickly　　} eat-PAST.3sS
　　'Masha ate porridge quickly.'

　　(Baker, 2014b, (3b/4a))

By assumption, the order *porridge $\leq$ quickly* is derived by scrambling the nominal over the adverb. The derivation and linearization of (90) would thus be as follows:

(91)　a.　Masha [$_{NP}$ porridge] [$_{VP}$ quickly [$_{VP}$ porridge [$_{V}$ porridge + eat]]]
　　b.　porridge $\leq$ quickly $\leq$ ~~porridge~~ $\leq$ porridge $\leq$ eat
　　　　(Baker, 2014b, (34))

Even if the base-generation copy of *porridge* can be deleted (as is generally the case in movement chains), the copy that is head-adjoined to the verb survives deletion. Because the higher copy of the nominal which is created by scrambling, also survives deletion, a linearization contradiction arises. Once again, an adjacency requirement violation like that in (90) is explained not in terms of the impossibility of the PNI-ed nominal to move (as in Massam 2001), but in terms of independent linearization requirements.

　　Nonetheless, Baker remarks that, in some languages, the PNI-ed nominal can indeed be separated from the verb. This is the case, for instance, in Hindi, as observed by Dayal (2011):

(92)　*PNI in Hindi*

a. [$_F$ **kitaab**] anu becegii, [$_F$ akhbaar   ] nahiiN
    [book   ] Anu see-FUT [newspaper] not
    'Anu will sell books, not newspapers.'

  b. **kitaab** anu zaroor   becegii
    book   Anu definitely see-FUT
    'Anu will definitely sell books.'

    (Dayal, 2011, (29))

Baker correlates this possibility with the availability of V-to-T movement in a PNI language. An-other necessary ingredient in the analysis to account for PNI scrambling is, as we are going to see momentarily, a certain assumption about what counts as the higher copy of a verb that has been the target of the head movement.

That Hindi displays V-to-T movement is argued for on the basis of the fact that the verb is placed after negation:

(93)   *Position of negation in Hindi*

anu bacca nahiiN sambhaalegii
Anu child not   look-after-FUT
'Anu will not look after children.'

(Dayal, 2011, (8a))

Baker contends that this linear order can be accounted for if the verb moves to T, past negation.

According to Baker's linearizarion-based PNI theory, a sentence like (92b) would be derived as follows:

(94)   i. [$_{TP}$ Anu [$_{VP}$ definitely [$_{VP}$ book sell]] Tense + AGR] $\xrightarrow{\text{noun incorporation}}$

   ii. [$_{TP}$ Anu [$_{VP}$ definitely [$_{VP}$ book book + sell]] Tense + AGR] $\xrightarrow{\text{V-to-T}}$

   iii. [$_{TP}$ Anu [$_{VP}$ definitely [$_{VP}$ book book + sell]] sell + Tense + AGR] $\xrightarrow{\text{scrambling}}$

   iv. [$_{TP}$ book Anu [$_{VP}$ definitely [$_{VP}$ book book + sell]] sell + Tense + AGR]
        (Baker, 2014b, (55))

The base-generation copy of *book* is deleted, under the assumption that it deletes like other lower copies of movement chains. As seen above in (90), in languages like Sakha, scrambling gives rise to a linearization contradiction because the copy adjoined to the verb survives deletion. What would be different in V-to-T languages like Hindi, where this copy must not survive in order to explain the well-formedness of sentences like (92b)? Baker proposes that, in Hindi, what can count as the lower copy of the verb is the whole complex formed by the verb and the N^0 head-adjoined to it. As such, the intermediate copy of *book* in (94iv) can also be deleted, as a byproduct of the linearization of the verb, which moves to T. Consequently, the linearization of the scrambled PNI-ed nominal *book* is trivial, as only the highest copy remains undeleted and no linearization contradiction occurs.

Hence, the crucial difference between a language like Sakha, where a PNI-ed nominal cannot scramble away from the verb (90) and Hindi, where this is possible (92b), is the availability of V-to-T movement: this movement is possible in Hindi and its effect on PNI is that it deletes a lower copy of the PNI-ed nominal, under the assumption that the complex head formed by the verb and the moved N^0 can count as a single unit that is deleted in the linearization of the chain created by

V-to-T movement. (See discussion in Baker 2014b that languages like Sakha do not exhibit this type of verb movement.)

With this background in place, we can see how a linearization-based theory of PNI would fare in an account of the Wolof data examined here. Wolof is similar to Hindi in also displaying head movement of the verb. Following the reasoning in Baker (2014b), we can detect this type of movement by inspecting the position of the verb with respect to negation. As we saw above, negation in Wolof is suffixal. The linear order in (95) can be accounted for if the verb moves at least as high as where negation sits. (For more on verb movement in Wolof, see Martinović 2015 and references therein.)

(95) Faatu adopte-ul **xaj**. # Tur=am   mo-y   Calki.
     Faatu adopt-NEG dog # name=POSS.3SG MO.3SG-IMPF Calki
     'Faatu did not adopt any dog at all. # The dog's name is Calki.'   [= (38)]

Following Baker's analysis, the derivation of a sentence like (95) would be at least as follows (for convenience, I am omitting further steps of head movement):

(96) i. Faatu [$_{\text{NegP}}$ *-ul* [$_{\text{VP}}$ adopt [$_{\text{NP}}$ dog]]] $\xrightarrow{\textit{noun incorporation}}$

     ii. Faatu [$_{\text{NegP}}$ *-ul* [$_{\text{VP}}$ adopt + dog [$_{\text{NP}}$ dog]]] $\xrightarrow{\textit{V-to-Neg}}$

    iii. Faatu [$_{\text{NegP}}$ adopt + *-ul* [$_{\text{VP}}$ adopt + dog [$_{\text{NP}}$ dog]]]

Let us assume that Wolof can also rely on the possibility of deleting the whole verbal complex formed by the lower copy of the verb, as assumed for Hindi above. In (96iii) thus, the only copy left of the PNI-ed nominal *dog* would be the one in the base-generation position, leading to no contradictory linearization statements.

Because Wolof in a PNI language with verb movement, the prediction is that it should pattern like Hindi and allow for the PNI-ed nominal to scramble away from the verb, across an adverb. However, as we saw above, this is not the case, as the adjacency requirement must be obeyed under these circumstances, much like Sakha (90). Baker's linearization analysis of PNI therefore cannot account for the Wolof data investigated here. Furthermore, this type of PNI theory falls short of accounting for the cases where this requirement can optionally be sidestepped, namely, in three-argument sentences and when the PNI-ed nominal is Ā-moved. The correlation in this case is not with the availability of V-to-T movement in a PNI language, both of these properties being present in Wolof, but with the co-occurrence of a the PNI-ed nominal and another nominal in the same relevant syntactic domain.

5   Concluding remarks

This paper aimed at answering the following questions regarding the distribution of PNI in Wolof:

(97)   i. Why do BNs have to obey the adjacency requirement, while full nominals do not?

      ii. Why does adding an argument between the subject and the BN theme (in the form of an applied argument or causee) allow the latter to bypass the adjacency requirement?

     iii. Why does Ā-moving a BN theme also allow it to bypass the adjacency requirement, where Ā-movement can be performed by either relativization of clefting?

      iv. What is there in common between three-argument constructions and Ā-movement such that they both allow a BN theme in Wolof to escape the adjacency requirement?

According to the analysis proposed here, PNI-ed nominals in Wolof have to obey the adjacency requirement when they are the object of a transitive verb (97i) because there is no other way for it to be case licensed. Following Branan (to appear), I assume that objects and subjects belong to different case domains, so that, in the absence of another DP to act as a case competitor, a BN object has to be licensed via adjacency with the verb. Full nominal objects, on the other hand, must move to the edge of the lower case domain, where the subject is visible and thus can act as a case competitor. The adjacency requirement is this case is absent. While stipulative, this obligatory form of object shift imposed on full nominal objects is consistent with scope facts.

The adjacency requirement can also be sidestepped by BN objects themselves, as long as another intermediate argument is introduced in the sentence. This is the case of ditransitive, applicative, and causative constructions (97ii). This is exactly what is expected in Branan's analysis, as the newly introduced argument acts a case competitor for the BN theme.

Branan's analysis is also helpful in explaining why Ā-movement, as effect by relativization and clefting, is helpful in licensing a BN object in spite of the adjacency requirement (97iii). The reason is that Ā-movement is successive-cyclic. Assuming that domains of case assignment are also phases (Baker, 2014a), there is an intermediate step in the Ā-movement the PNI-ed object is undergoing that brings it to the same domain of case assignment as the subject, thereby allowing it to the licensed by case.

This analysis is also successful in explaining not only the individual effects of the introduction of an intermediate argument and of Ā-movement, but also why these two independent phenomena pattern together in allowing a BN to escape the adjacency requirement. Branan (to appear)'s nominal licensing framework based on dependent case, provides a unified answer: both operation furnish a case competitor to the PNI theme, either by the introduction of a new nominal in the lower case domain or by the successive cyclic movement of the PNI theme itself to the higher case domain, where the subject resides. Consequently, this nominal can be licensed with case, instead of having to resort to adjacency with the verb.

Finally, I also showed that a competing PNI theory that is grounded on linearization (Baker, 2014b) makes empirically incorrect predictions for Wolof. This type of analysis could not straightforwardly capture the unified effect of a newly introduced intermediate argument and of Ā-movement. Additionally, by correlating the possibility of scrambling a BN with the availability of V-to-T movement in a PNI language, this theory also incorrectly misplaces where flexibility on the adjacency condition can be found in Wolof.

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