### The Subject/Non-subject Asymmetry in Wolof\*

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## 1. Introduction

This paper investigates the subject/non-subject asymmetry in Wolof (Niger-Congo) in *wh*-movement constructions. I argue that the particle *a* which occurs in those clauses and is analyzed in the literature as a focus marker (Dunigan 1994, Russell 2006), a copula (Kihm 1999, Zribi-Hertz and Diagne 2002, Torrence 2005), or an emphatic pronoun (Rialland and Robert 2001), is actually a complementizer that marks A'-movement. I follow Pesetsky and Torrego (2001) in analyzing the asymmetry as a T-to-C asymmetry.

Examples (1) and (2)<sup>1</sup> illustrate *wh*-extraction of a subject and an object, respectively, in contrastive focus constructions. Two versions of the complementizer occur, depending on the grammatical relation of the extracted element: a *wh*-extracted subject is followed by a, as illustrated in (1),<sup>2</sup> and extracting an object, or an adjunct, requires another element, l-, to precede a, as in (2).

(1)	Osmaan <b>a</b> lekk ceeb	(2)	ceeb <b>l-a</b> Osmaan lekk
	osman $C_f$ eat rice		rice $l$ -C <sub>f</sub> osman eat
	"[OSMAN] <sub>FOC</sub> ate rice."		"Osman ate [RICE] <sub>FOC</sub> ."

The subject/non-subject asymmetry occurs only at the local subject extraction site:

(3) Aali **l-a**-a gëm ni **l-a** Musaa xalad ni mu **a** leen gis ali l-C<sub>f</sub>-1SG believe that l-C<sub>f</sub> musa think that 3SG.SBJ C<sub>f</sub> 3PL.OBJ see "I believe that Musa thinks that [ALI]<sub>FOC</sub> saw them."

The example in (3) illustrates two important facts. First, the fact that  $C_f$  is not preceded by *l*- only at the local extraction site tells us that the asymmetry is not related to the properties

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<sup>&</sup>lt;sup>1</sup>Unless otherwise noted, all the data are from a native speaker from Dakar, Senegal.

<sup>&</sup>lt;sup>2</sup>The morpheme a attaches to the preceding element and triggers vowel coalescence. In this paper, I omit this from the examples for simplicity.

of the focused constituent *per se*, i.e. a/la are not something like emphatic pronouns (as suggested in Rialland and Robert 2001). Second, if the focused constituent is fronted to the beginning of the sentence, la is found in every intermediate clause. This suggests that it is unlikely that (l)a is a focus marker, since no focused constituent is present in the intermediate clauses (in fact, no constituent at all precedes la). For the same reason, it would be difficult to justify the claim that focus constructions are clefts (Kihm 1999, Torrence 2005), since every intermediate clause would also have to be assumed to be a cleft, and there does not seem to exist a constituent that is clefted in those clauses.<sup>3</sup> I therefore analyze a as a complementizer marking A'-extraction, and its occurrence in the intermediate clauses as a result of the cyclic nature of A'-movement. In this respect, a in Wolof is similar to aL in Irish (McCloskey 2001).

An interesting situation occurs in fragment answers, exemplified in (4). A question like "*Who did Musa see?*" can be answered by two possible fragments, with both forms of the complementizer – the one we expect in subject extraction, and the one we expect in non-subject extraction.

(4)	a.	Aali a.	b.	Aali l-a.
		ali $C_f$		ali $l$ -C <sub>f</sub>

The sentences in (4) can also be used as a response to the question "*Who saw Musa*?". This apparent optionality, or disappearance of the asymmetry, also occurs in pseudoclefts. In this paper, I show that this is in line with the analysis of the asymmetry as T-to-C movement, and furthermore argue that pseudoclefts are the source of fragment answers in Wolof.

The paper proceeds as follows. In §2, I present the facts concerning *wh*-movement in Wolof. In §3 I discuss the subject/non-subject asymmetry. In §4, I give a brief overview of Pesetsky and Toreggo's (2001) analysis of the T-to-C asymmetry in English and extend it to Wolof. In §5 I account for fragment answers and pseudoclefts, and in §6 I conclude.

### 2. Wh-movement in Wolof

As mentioned in the previous section, a in Wolof exhibits similarities with the Irish complementizer aL, in that it seems to provide evidence for the cyclic nature of wh-movement. Unlike aL, however, a does not mark every occurrence of A'-movement. In all instances of long distance A'-movement, a occurs in all intermediate landing sites, but only some matrix<sup>4</sup> instances of C surface as a. The following examples illustrate constructions, besides contrastive focus structures, in which a occurs in matrix clauses – an-questions in (5),<sup>5</sup> and comparatives in (6):

(5) k-an l-**a** Musaa gis? CL-an l-C<sub>f</sub> musa see "Who did Musa see?"

<sup>&</sup>lt;sup>3</sup>But see Torrence (to appear) for a successive cyclic clefting analysis.

<sup>&</sup>lt;sup>4</sup>I use *matrix* to refer to the final landing site of an extracted element.

<sup>&</sup>lt;sup>5</sup>There are two ways to form a *wh*-question in Wolof: with a class marker and the question word *-an* followed by *a*, as in (5), or the question word *-u*, which is not followed by *a*, as in (7). Dunigan (1994), Torrence (2005), and Russell (2006) offer detailed analyses of Wolof *wh*-questions.

(6) tai l-**a**-a gënn gau bindd ci dembë today l-C<sub>f</sub>-1SG more fast write LOC yesterday "I write faster today than yesterday."

The parallel between focus constructions and questions/comparatives is not surprising. It has been observed that languages which have a designated focus position tend to move their *wh*-phrases to that position as well (Horvath 1986), and comparatives are also claimed to involve focusing (Reglero 2006, Merchant 2009).<sup>6</sup> In that view, the occurrence of focus movement in matrix clauses in all of these constructions is not unexpected.

In long distance *wh*-movement, all C positions must contain *a*. This occurs in *wh*-questions without *a* in the matrix clause, in relative clauses and in temporal clauses.

- (7) u QUESTIONS
  - a. k-u lekk gato bi? CL-*u* eat cake DEF.SG *"Who ate the cake?"*
  - b. k-u Musaa foog mu-**a** lekk gato bi CL-*u* musa think 3SG.SBJ-C<sub>f</sub> eat cake DEF.SG *"Who does Musa think ate the cake?"*
- (8) **RELATIVE CLAUSES** 
  - a. film bi ñu bëgg movie DEF.SG 1PL.SBJ like *"the movie we liked."*
  - b. film bi mu wax-oon ni l-**a**-ñu bëgg movie DEF.SG 3SG.SBJ say-PAST that l-C<sub>f</sub>-1PL.SBJ like "the movie that s/he said we liked"
- (9) TEMPORAL CLAUSES
  - a. Ndax yaa-ngi doon lekk bi Aali lekk-ee cere? Q 2SG.SBJ-PROGR IMPF.PAST eat when ali eat-ANTERIOR couscous "Were you eating at the time Ali had eaten couscous?"
  - b. Ndax yaa-ngi doon lekk bi Faatu wax-oon ni l-**a** Aali Q 2SG.SBJ-PROGR IMPF.PAST eat when fatou say-PAST that l-C<sub>f</sub> ali lekk-ee cere? eat-ANTERIOR couscous "Were you eating at the time Fatou said Ali had eaten couscous?" (embedded reading)

In fact, as Dunigan (1994) observes, extraction out of embedded clauses that contain a different sentential particle<sup>7</sup> is ungrammatical (example adapted from Dunigan 1994):

<sup>&</sup>lt;sup>6</sup>See Baglini to appear for an analysis of Wolof comparatives.

<sup>&</sup>lt;sup>7</sup>Almost every sentence type in Wolof has a particular sentential particle. Most of them are in complementary distribution, and none of them can co-occur with *a*. Since I only deal with *wh*-movement constructions, I am not concerned with the status of other sentential particles. For different analyses of the sentential particles, see Dunigan 1994, Torrence 2005, and Russell 2006.

(10) \*Lan l-**a** Modu xam ni Faatu da-fa gis what l-C<sub>f</sub> modu know that fatou da-3SG see intended: "What does Modu know that Fatou [SAW]<sub>FOC</sub>?"

The difference in the behavior of *a* in short distance and long distance movement deserves more attention and I leave the problem for further research. What I hope to have justified is that *a* should be treated as a marker of A'-extraction, given its occurrence in a variety of clauses which involve *wh*-movement, but do not involve focusing.

In the next section, I review all the facts of the subject/non-subject asymmetry in *wh*-extraction in Wolof, and present Torrence's (2005) analysis of the phenomenon.

### 3. The *a/la* Asymmetry

As illustrated in \$1, in subject extraction the *wh*-moved phrase is followed by *a*, as in (11), in object extraction by *la*, as in (12), and in extraction of an embedded subject, *a* is found at the local extraction site, and *la* in every intermediate clause and at the final landing site of the extracted subject, illustrated in (13).

(11)	Aali <b>a</b> gis Musaa	(12)	Musaa <b>l-a</b> Aali gis
	ali $C_f$ see musa		musa $l$ -C <sub>f</sub> ali see
	"[ALI] <sub>FOC</sub> saw Musa."		"Ali saw [MUSA] <sub>FOC</sub> ."

(13) Aali **l-a**-a gëm ni **l-a** Musaa xalad ni mu **a** leen gis ali l-C<sub>f</sub>-1SG believe that l-C<sub>f</sub> musa think that 3SG.SBJ C<sub>f</sub> 3PL.OBJ see "I believe that Musa thinks that [ALI]<sub>FOC</sub> saw them."

In most work on Wolof syntax, the particles *a* and *la* are treated as distinct lexical items, one marking subject focus, and the other object focus (Dunigan 1994, Rialland and Robert 2001, Zribi-Hertz and Diagne 2002, Russell 2006). In Torrence 2005 *a* and *la* are treated as the same morpheme, and I briefly review this analysis here.<sup>8</sup>

Torrence (2005) analyzes *a* as a raising predicate, similar to English *be*, or *seem*, and *l*- as an expletive. He claims that the difference between the subject and the non-subject cleft is the presence or absence of a CP: subject clefting involves raising out of a TP, and non-subject clefting A'-movement out of a CP. (14) shows the structure of a non-subject cleft in Torrence's analysis.

(14) Non-subject cleft

- a. xale bi l-a Dudu gis child DEF.SG XPL-a Dudu saw *"It's the child that Dudu saw."*
- b. [FocP xale bi<sub>k</sub> [CopP l a<sub>Cop</sub> [CP  $t_k$ ' Dudu gis  $t_k$ ]]]

In (14), the clefted item A'-moves out of the CP using Spec, CP as an escape hatch. The copula a is a raising predicate and thus must have a nominal expression in its A-specifier po-

<sup>&</sup>lt;sup>8</sup>Another analysis is offered by Kihm (1999). I do not address it here, as many assumptions which he relies on are contradictory to my data.

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sition. The clefted non-subject undergoes A'-extraction, and thus cannot land there, which leads to the insertion of the expletive l-.

In subject clefts, as in (15), movement of the subject from Spec, TP to Spec, CopP is an instance of A-movement.

(15) Subject cleft

- a. mu a lekk gato bi 3SG.SBJ *a* eat cake DEF.SG *"It's him/her who ate the cake."*
- b.  $[F_{ocP} \operatorname{mu}_{i} [C_{opP} \operatorname{t}_{i}^{*} a_{Cop} [T_{P} \operatorname{t}_{i} \text{ lekk gato bi }]]]$

In Torrence's analysis, the reason why a clefted subject cannot have a derivation similar to (14), which would result in expletive insertion, is that movement from Spec,TP to Spec,CP leaves a trace in Spec,TP following  $C^0$ , leading to a *that*-trace violation. The basic claim in Torrence's proposal then is that *a* can either take a CP or a TP as complement, the latter being a last resort to avoid a *that*-trace effect.

One problem with this analysis, which Torrence himself notes, is that it is not clear why raising of the subject from Spec, TP to Spec, CopP is blocked in non-subject clefts; in other words, why is (16) not a possible way to focus an object:

 (16) \*xale yi Móódu a dáq child DEF.PL modu *a* chase intended: "*It's the children that Modu chased*."

In this paper, I assume that Torrence's claim that the asymmetry in Wolof focus constructions is a result of a *that*-trace-effect-like phenomenon is in its essence correct, and I try to show how it can be explained in a simpler fashion. In the next section, I lay out the relevant details of Pesetsky and Torrego's analysis of T-to-C subject/non-subject asymmetry in English and apply it to the Wolof data.

# 4. Pesetsky & Torrego (2001) and T-to-C in Wolof

Pesetsky and Torrego (2001) (henceforth P&T) offer a unified analysis of the T-to-C asymmetry and the *that*-trace effect in English, that rests on two assumptions: (i) T-to-C movement is motivated by an uninterpretable T feature (uT), with an EPP feature, on C, and (ii) Nominative case is uT on D. The relevant principles for the analysis are the following:

- 1. ATTRACT CLOSEST (Chomsky 1995): only the closest constituent can be attracted.
- 2. HEAD MOVEMENT GENERALIZATION: the movement from a complement to the nearest head is always realized as head movement.
- 3. PRINCIPLE OF MINIMAL COMPLIANCE (Richards 1997): a constituent that is farther away may be extracted, if an element that complies with ATTRACT CLOSEST has already moved.

The key data for their analysis is the T-to-C asymmetry illustrated in (17), and schematized in (18) (the schema shows the structures before T-to-C has taken place):

- (17) T-to-C Asymmetry
  - a. What did Mary buy?
  - b. \*What Mary bought?
  - c. \*Who did buy the book? (unless *did* is focused)
  - d. Who bought the book?
- (18) a.  $[_{C} uT, uWh] [_{TP} [Mary, uT] T [_{VP} bought what] ] (17a)-(17b)$ 
  - b.  $[_C uT, uWh] [_{TP} [who, uT] T [_{VP} bought the book] ] (17c)-(17d)$

In (18), the nominative subject is already attracted to Spec, TP by T's need to check its uninterpretable  $\phi$ -features. *u*T on the subject is also marked for deletion by agreement with *i*T on T; however, this feature may remain undeleted until the end of the CP cycle, and be accessible to further operations. P&T explain the lack of T-to-C movement in subject extraction (17d), and its occurrence in object extraction (17a) in the following way. C bears *u*Wh and *u*T, with an EPP feature. In (18a), the closest element that bears a *Wh*-feature is *what*, but both the nominative subject and T (which carry *u*T/*i*T) are closer to C than *what*. Attracting the TP results in head movement of T to C, due to the Head Movement Generalization, and the object A'-moves to delete C's uninterpretable *Wh*-feature. C is thus forced to delete its uninterpretable features in two separate operations.

If C has the option of deleting its uT either by attracting the subject or by attracting the TP, the question arises why this is not possible in object extraction, i.e. why (17b) is not well-formed. P&T claim that this is in fact a possibility, but that in English it happens to have consequences on interpretation. According to their analysis, if a C with uWh has a non-wh-phrase as a specifier, the clause is interpreted as an exclamative:

- (19) a. \*What a silly book did Mary buy!
  - b. What a silly book Mary bought!

Turning to (18b), TP and its nominative specifier both count as the closest constituent to C, so, in principle, C can choose to delete its uT feature by attracting TP (realized as head movement), or by attracting the specifier. If it attracts T, it deletes just one of its two uninterpretable features. If, on the other hand, it attracts the nominative phrase, both uT and uWh can be deleted in one step, since the phrase in Spec,TP has both features. The ECONOMY CONDITION prevents unnecessary movement to take place, and bans T-to-C.

P&T extend this analysis to the *that*-trace effect in English, arguing that T-to-C and the *that*-trace effect are one and the same phenomenon. For the present purposes, the presented sketch of their analysis will suffice. In the remainder of this section, I show how this approach can account for the subject/non-subject asymmetry in Wolof *wh*-movement constructions.

Suppose that the complementizer that is spelled out as a has a uT feature, in addition to a uWh feature. Adopting P&T's assumption that nominative case is uT on D, we expect the sentence in (20a) to have the structure in (20b), before the movement of the focused phrase:

# (20) Subject extraction

a. Aali a gis Musaa ali C<sub>f</sub> see musa "[ALI]<sub>FOC</sub> saw Musa."
b. [C a<sub>µT,µWh</sub>] [T<sub>P</sub> [Aali<sub>µT,iWh</sub>] iT [<sub>VP</sub> gis Musaa]]

The subject in (20b) has both uT, and iWh, so by attracting it, C can delete both of its uninterpretable features in one operation, yielding the structure in (21):

(21)  $[CP \operatorname{Aali}_{uT,iWh}]_i [C a_{uT,uWh}] [TP t_i [T iT] [VP gis Musaa]]$ 

On the other hand, if a non-subject is extracted, as in (22), the extracted constituent has only the *i*Wh feature. The structure after C has merged with TP is shown in (22b).

# (22) **Object extraction**

- a. Musaa **l-a** Aali gis musa l-C<sub>f</sub> ali see "Ali saw [MUSA]<sub>FOC</sub>."
- b.  $[C a_{uT,uWh}] [TP [Aali_{uT}] iT [VP gis Musaa_{iWh}]]$

Both the subject and T are closer to C then the object, so ATTRACT CLOSEST forces C to delete one of its uninterpretable features (uT) by attracting the closest constituent. However, the uninterpretable *Wh*-feature can only be deleted by attracting the object DP. Therefore, C needs two movement operations to delete all of its uninterpretable features. The key to this proposal is that *l*- is the spell-out of T that has moved to C, as shown in (23).

(23)  $\begin{bmatrix} CP \ [Musaa_{iWh}]_j \ [C \ l_T \ a \ [TP \ Aali \ t_T \ gis \ t_j \ ] \ ] \end{bmatrix}$ 

The obvious question is why C in sentences like (22) cannot choose between Spec, TP and TP (i.e. its head), to delete uT? In other words, why is the sentence in (24) not a possible way to focus an object?

(24) \*Musaa Aali **a** gis musa ali  $C_f$  see intended: "*Ali saw [MUSA]<sub>FOC</sub>*."

From the ungrammaticality of (24), the following appears to be true of the complementizer a in Wolof: (i) the phrase carrying the *Wh*-feature must occupy the specifier of a, and (ii) a has only one specifier position. In other words, if the subject moved to Spec,CP in order to delete uT, uWh would remain unchecked because no other phrase could move to Spec,CP. As shown in §3, excluding this particular derivation presents a problem for Torrence (2005), who has no way of preventing the subject from moving to the specifier of the copula, since the focused element in his analysis occupies the specifier of a Focus Phrase above the Copular Phrase. By assuming that the focused element must occupy the specifier of a, and allowing a to have only one specifier position, this is accounted for.

Let us now turn to long distance movement of focused constituents. It was already mentioned that A'-extraction in Wolof is possible only out of clauses headed by the complementizer *a*. Furthermore, *a* must also occupy every C between the extraction site and the final landing site of the moved element.

(25) téére **l-a**-ñu gëm ni **l-a**-a jox Musaa book l-C<sub>f</sub>-3PL believe that l-C<sub>f</sub>-1SG give musa "They believe that I gave [A BOOK]<sub>FOC</sub> to Musa."

The occurrence of a in C of embedded clauses is straightforwardly accounted for by assuming that the extracted element passes through the Spec, CP of each embedded clause. If a is the spell-out of a complementizer that carries a *Wh*-feature, its presence in C of every embedded clause is necessary for the focused element to be fronted to the beginning of the sentence. The example in (26) illustrates the extraction of an embedded subject.

- (26) a. Aali **l-a**-a gëm ni **l-a** Musaa xalad ni mu-**a** leen gis ali l-C<sub>f</sub>-1SG believe that l-C<sub>f</sub> musa think that 3SG.SBJ-C<sub>f</sub> 3PL.OBJ see "I believe that Musa thinks that [ALI]<sub>FOC</sub> saw them."
  - b. [*CP* [ Aali<sub>*iWh*</sub>]<sub>*i*</sub> l<sub>*iT*</sub> a<sub>*uT*,*uWh*</sub> a *t<sub>T</sub>* gëm ni [*CP* t<sub>*i*</sub>' l<sub>*iT*</sub> a<sub>*uT*,*uWh*</sub> Musaa *t<sub>T</sub>* xalad ni [*CP* mu<sub>*i*</sub> a<sub>*uT*,*uWh*</sub> t<sub>*i*</sub> leen gis ] ] ]

In (26), the subject first moves from inside the VP to Spec,TP, to check  $u\phi$  on T. At the same time, the uninterpretable T feature on the subject is checked and marked for deletion via Agree with T. However, it is not immediately deleted and remains available for further operations within the same cycle. Next, the subject moves from Spec,TP to Spec,CP in order to check both uT and uWh on C. uT on the subject now has to be deleted, since the phase has ended. The C of the next higher clause needs to delete its uT and uWh. The closest constituent that it can attract to delete its uT is TP, resulting in T-to-C, which surfaces as *l*- preceding *a*. The phrase that carries *i*Wh is the extracted subject located in the lower Spec,CP, which is now attracted to the higher Spec,CP. This analysis explains why *l*- occurs in every C, except the one where the local subject has been extracted – it is only there that the subject can delete the uninterpretable T feature on C.

In addition to a, a subordinating complementizer ni occurs in every embedded clause in (26). The proposed analysis assumes that, if a is treated as a complementizer, we have to allow for two CP layers in Wolof. In this sense, Wolof would be similar to Korean, which distinguishes between mood markers, obligatory in every clause, and a subordinating particle, which introduces embedded clauses. Namely, Wolof possesses a set of sentential particles which are for the most part in complementary distribution, and which Dunigan (1994) argues function as modal operators. The subordinating particle ni can freely occur with them. Bhatt and Yoon (1992) propose that the category "Comp" be dissociated into two distinct categories – one that indicates clause-type (MOOD), and one that indicates subordination (SUBORDINATORS) – which some languages would conflate, and some keep separate. Wolof would belong to the second category, distinguishing sentential particles that mark modality, and a subordinating particle.

Another thing to notice is the occurrence of a subject pronoun *mu* in lieu of the extracted subject in the most embedded clause. I assume that this has to do with the phonological status of the complementizer *a*, which is a clitic and thus cannot stand on its own. In order to provide a host for *a*, a subject pronoun is pronounced in the position of the trace.

In this section I have offered an analysis of the subject/non-subject asymmetry in Wolof focus constructions by analyzing it as a T-to-C asymmetry along the lines of Pesetsky and Torrego (2001). I argue that l-, which precedes the complementizer a in all instances, except at the local subject extraction site, is T that has moved to C in order to delete the uninterpretable T feature on C. T-to-C does not occur in local subject extraction due to nominative case being uT on D, and as such capable of deleting uT on C by moving to its specifier. Since in those cases the subject also deletes uWh on C, T-to-C movement is unnecessary, and baned by the Economy Condition. In case of extraction of any other element, T-to-C movement must take place, because the extracted phrase does not bear nominative case (i.e. uT), or is not close enough to be attracted by the complementizer.

In the next section, I present data from fragment answers and pseudoclefts and show how they are handled under the analysis advocated here.

## 5. Fragment Answers and Pseudoclefts

The complementizer *a* occurs in a number of constructions besides contrastive focus, fragment answers being one of them. The sentences in (27) are both possible answers to two questions: "Who saw Musa?" and "Who did Musa see?".

(27)	a.	Aali <b>a</b> .	b.	Aali <b>l-a</b> .
		ali C <sub>f</sub>		ali <i>l</i> -C <sub>f</sub>
		"[ALI] <sub>FOC</sub> "		"[ALI] <sub>FOC</sub> "

Fragment answers have been convincingly claimed to have fully sentential syntactic structures subject to ellipsis, in order to account for their semantically propositional character (see Merchant 2004 and the references therein for details). The examples in (27a) and (27b) are in line with such analyses, since the occurrence of the complementizer with a *Wh*-feature implies the presence of a full structure containing the extraction site.

Merchant (2004) proposes an analysis of fragment answers which assumes movement of the fragment to a left-peripheral position – similar to the movement of the *wh*-phrase in sluicing – with the clause itself elided. There is evidence that this leftward movement has the properties of focus movement (Brunetti 2003, Arregi 2010). Examples in (27a) and (27b) are in line with this claim, as it seems reasonable to assume that the underlying structure of these fragment answers are full sentential structures. This, however, creates a puzzle, since both versions of the complementizer, a and la, are allowed in a fragment answer, regardless of whether the fragment is the subject or the object (or any other nonsubject constituent) of the non-elided structure. In other words, why is la allowed if the fragment is the subject of the underlying sentence, and why is a possible if the fragment is the object? If my analysis of focus constructions is on the right track, this would suggest

that T-to-C movement is both optional and possible, in both subject and non-subject extraction, if the complement clause of *a* is elided. Surprisingly, the same apparent optionality of T-to-C occurs in pseudoclefts:

- (28) a. ñi lekk tangal yi xale yi **l-a**/**a** who eat sweets DEF.PL child DEF.PL  $l-C_f/C_f$ *"Who ate the sweets were the children."* 
  - b. li xale yi lekk tangal yi **l-a/a** what child DEF.PL eat sweets DEF.PL  $l-C_f/C_f$ *"What the children ate, were the sweets."*

Given the parallelism between fragment answers and pseudoclefts, it seems more plausible that the fragment answers in (27a) and (27b) are pseudoclefts in which the *wh*-clause is elided, than to assume that they are regular contrastive focus constructions.<sup>9</sup>

I only deal with the type of pseudoclefts featured in (28), the so-called *specificational pseudoclefts*, which consist of a constituent that contains a VARIABLE (the *wh*-clause) (*what the children ate*), a constituent that exhaustively specifies the VALUE of the variable (*the sweets*), and a COPULA that links the two constituents (*were*).<sup>10</sup> According to Blom and Daalder (1977) (also Akmajian 1979 and Higgins 1979), the information structure of specificational pseudoclefts is such that the constituent containing the 'value' is the FOCUS of the construction, conveying new information, and the *wh*-clause contains old information. This keeps the analysis proposed here in agreement with the previously mentioned claim that the DP in fragment answers is focused.<sup>11</sup>

An important question that is raised in the literature dealing with pseudoclefts concerns the status of the *wh*-clause. There are two possibilities, and both have been extensively argued for: (i) that the *wh*-clause is a question, and these types of pseudoclefts are questionanswer pairs (den Dikken et al. 2000 (for Type A of specificational pseudoclefts); Schlenker 2003, Romero 2005), and (ii) that the *wh*-clause is a free relative (Akmajian 1979, Heycock and Kroch 1999, den Dikken et al. 2000 (for Type B of specificational pseudoclefts), Caponigro and Heller 2007). In English, *wh*-words and relative pronouns have the same form, but Wolof distinguishes *wh*-words that introduce interrogatives (class marker followed by *-u*) and free relatives (class marker followed by *-i*). Caponigro and Heller (2007) show that a specificational pseudocleft (which exhibits Principle A connectivity) allows only for the free-relative complementizer (examples (29)-(31) taken from Caponigro and Heller 2007). I therefore treat the *wh*-clause in Wolof as a free relative. *Embedded Interrogative* 

(29) yëg na-0 [\*l-i/ l-u Móódu gën-ë bëgg]. find.out *na*-3SG cl-FR/cl-INT modu surpass-INF like *"She found out what Modu likes most."* 

<sup>&</sup>lt;sup>9</sup>Clefts have been argued to be the source of sluicing in Japanese (Merchant 1998), and Spanish and Brazilian Portuguese (Rodrigues et al. 2009). To my knowledge, pseudoclefts have not been claimed to be the source of any type of ellipsis in any language.

<sup>&</sup>lt;sup>10</sup>For an overview of the properties and different analyses of pseudoclefts, see den Dikken (2001)

<sup>&</sup>lt;sup>11</sup>As for the copula, I assume it is phonologically null in Wolof. For analyses that treat a as the copula, see Kihm 1999, and Torrence 2005.

# Free Relative

(30) bañ na-Ø [l-i/\*l-u Móódu gën-ë bëgg]. hate *na*-3SG cl-FR/cl-INT modu surpass-INF like *"She hates what Modu likes most."* 

# Specificational pseudocleft

(31) [**l-i**/\***l-u** Móódu gën-ë bëgg] bopp-am l-a. cl-FR/cl-INT modu surpass-INF like head-POSS.3SG  $l-C_f$ "What Modu likes most is himself."

Another issues that is addressed in the pseudocleft literature is whether one of the two major constituents is predicated of the other. There have been claims supporting both a non-predicational approach (Akmajian 1979, Heycock and Kroch 1999), and a predicational approach to pseudoclefts (Higgins 1979, Heggie 1988, Moro 1997). In this paper, I am agnostic to this question, as it is not relevant for the present purposes. I only assume that the two constituents are contained in a small clause.

The structure of the pseudocleft before any movement operations have taken place is illustrated in (32):

# $(32) \qquad [CP a_{uT,uWh} [TP iT [SC DP_{uT,iWh} FR]]]$

In pseudoclefts, unlike other sentences, there are two candidates that have uT and can move to Spec,TP to satisfy the EPP feature of T – the DP (33a), or the free relative (33b). Whichever constituent moves to Spec,TP is the subject. The complementizer a has two features that need checking, uT and uWh. In (33a), where the DP has moved to Spec,TP, a can attract either the TP (i.e. its head) or the DP to satisfy its uT feature. Since the DP in specificational pseudoclefts is the *value*, it is typically focused. In Wolof, this means that is has to end up in the specifier of a, and thus carry the *Wh*-feature. If in (33a) T-to-C movement occurred to check uT on C, another instance of movement would have to take place to delete uWh on C. If, on the other hand, the DP moves to Spec,CP, it can delete both of T's uninterpretable features. Just as in focus constructions, the more economical choice is made.

On the other hand, if the free relative is the constituent that has moved to Spec, TP to satisfy the EPP property of T, as in (33b), the closest element that C can attract to delete its uninterpretable T feature is TP, which is why T-to-C movement takes place. The DP still has to move to Spec, CP, to check uWh on C.

(33) a. 
$$[CP DP_{uT,iWh} [C a_{uT,uWh} [TP t'_{DP} iT [SC t_{DP} FR]]]]$$
  
b.  $[CP DP_{iWh} [C l_{iT} a_{uT,uWh} [TP FR t_{iT} [SC t_{DP} t_{FR}]]]]$ 

To account for the surface constituent order in Wolof, another movement must take place – the fronting of the free relative to a position above the CP. Moreover, wh>XP is the only surface constituent order available in Wolof specificational pseudoclefts. This may seem unusual, as one of the key properties of specificational pseudoclefts is precisely their

reversibility (Declerck 1988, den Dikken et al. 2000, den Dikken 2001). English specificational pseudoclefts can exhibit either the wh>XP or the XP>wh constituent order:

- (34) a. What Ali gave Fatou was his brand new car.
  - b. His brand new car was what Ali gave Fatou.

Unlike in English, these pseudoclefts in Wolof do not exhibit surface reversibility. However, as we have seen in (33a) and (33b), it is not the case that specificational pseudoclefts in Wolof are not reversible, it is only that the surface constituent order is not reversible. If the analysis advocated here is on the right track, Wolof presents an interesting case in which the underlying subject can be either the DP or the free relative, but this is not reflected in the surface order. Rather, the underlying structure is retrievable from the version of the complementizer – a implies that the underlying subject is the DP, and la that it is the free relative.

The fragment answers in (27a) and (27b) are obtained by eliding the free relative that topicalizes above Spec, CP:<sup>12</sup>

(35)	a.	<del>[ki Musaa gis]</del> Aali <b>a</b>	b.	<del>[ki Musaa gis]</del> Aali <b>l-a</b>
		who musa see ali $C_f$		who musa see Aali $l$ -C $_f$

### 6. Conclusion

In this paper, I propose an analysis of the subject/non-subject asymmetry in Wolof whmovement constructions that follows Pesetsky and Torrego 2001. I argue that l-, which occurs before the complementizer a in cases of non-subject extraction, is an instance of T-to-C movement, triggered by the presence of an uninterpretable T feature on C, which is, in case of subject extraction, deleted by the moved subject itself, under the assumption that nominative case is uT on D. The argument that a is a complementizer marking wh-movement, rather than a focus marker, is substantiated by its occurrence in clauses in which A'-movement takes place, yet no constituent is focused, such as long distance extraction from wh-questions, relative clauses, and temporal clauses. I present data from specificational pseudoclefts and fragment answers, which at the first sight present a challenge for my analysis, since both versions of the complementizer are possible, regardless of the grammatical relation of the extracted element, suggesting that T-to-C movement is optional and available in both subject and non-subject extraction. Since in specificational pseudoclefts either of the two major constituents can occupy the specifier position of TP, I show that the apparent optionality of T-to-C movement is expected, depending on which constituent is raised into Spec, TP: if it is the DP, it can delete both uT and uWh on C, whereas if it is the FR, two movement operations have to occur - T-to-C to delete uT, and A'-movement of the DP to delete *u*Wh on C.

Finally, I propose that fragment answers are best analyzed as being derived from pseudoclefts by eliding the free relative.

 $<sup>^{12}</sup>$ I leave the details of the deletion of the free relative for future work.

# References

- Akmajian, Adrian. 1979. Aspects of the grammar of focus in English. New York, NY: Garland.
- Arregi, Karlos. 2010. Ellipsis in split questions. Natural Language and Linguistic Theory 28:539–592.
- Baglini, Rebekah. to appear. Reduced clausal structure in comparatives: Evidence from Wolof. In *Proceedings of BLS 38*.
- Bhatt, Rakesh, and James Yoon. 1992. On the composition of COMP and parameters of V2. In *Proceedings of the 10th West Coast Conference in Formal Linguistics*, ed. D. Bates, 41–52. Stanford, CA: CLSI.
- Blom, Alied, and Saskia Daalder. 1977. *Syntaktische theorie en taalbeschrijving*. Muiderberg: Coutinho.
- Brunetti, Lisa. 2003. Information focus movement in Italian and contextual constraints on Ellipsis. In *Proceedings of the 22nd West Coast Conference on Formal Linguistics*, ed. Gina Garding and Mimu Tsujimura, 95–108. Somerville, MA: Cascadilla Press.
- Caponigro, Ivano, and Daphna Heller. 2007. The non-concealed nature of free relatives: Implications for connectivity in specificational sentences. In *Direct compositionality*, ed. Chris Baker and Pauline Jacobson, 237–263. Oxford: Oxford University Press.
- Chomsky, Noam. 1995. The Minimalist Program. Cambridge, MA: MIT Press.
- Declerck, Renaat. 1988. *Studies on copular sentences, clefts and pseudo-clefts*. Leuven: Leuven University Press/Foris.
- den Dikken, Marcel. 2001. Specificational copular sentences and pseudoclefts. In *The Blackwell Companion to Syntax*, volume 4, chapter 61. Oxford: Blackwell.
- den Dikken, Marcel, André Meinunger, and Chris Wilder. 2000. Pseudoclefts and Ellipsis. *Studia Linguistica* 54:41–89.
- Dunigan, Melynda B. 1994. On the clausal structure of Wolof. Doctoral Dissertation, University of North Carolina at Chapel Hill, Chapel Hill, NC.
- Heggie, Lorie. 1988. The syntax of copular structures. Doctoral Dissertation, University of Southern California, Columbia, SC.
- Heycock, Caroline, and Anthony Kroch. 1999. Pseudocleft connectedness: Implications for the LF interface level. *Linguistic Inquiry* 30:365–397.
- Higgins, Francis Roger. 1979. *The pseudocleft construction in English*. New York: Garland.
- Horvath, Julia. 1986. *Focus in the theory of grammar and the syntax of Hungarian*. Dordrecht: Foris.
- Kihm, Alain. 1999. Focus in Wolof. A study of what morphology may do to syntax. In *The grammar of focus*, ed. Georges Rebuschi and Laurice Tuller, 245–273. Amsterdam: John Benjamins Publishing Company.
- McCloskey, Jim. 2001. The morphosyntax of WH-extraction in Irish. *Journal of Linguistics* 37:67–100.
- Merchant, Jason. 1998. 'Pseudosluicing': Elliptical clefts in Japanese and English. In ZAS Working Papers in Linguistics, 88–112. Berlin: Zentrum für Allgemeine Sprachwissenschaft.

Merchant, Jason. 2004. Fragments and ellipsis. Linguistics and Philosophy 27:661–738.

- Merchant, Jason. 2009. Phrasal and clausal comparatives in greek and the abstractness of syntax. *Journas of Greek Linguistics* 9:169–179.
- Moro, Andrea. 1997. *The raising of predicates: Predicative noun phrases and the theory of clause structure*. Cambridge, MA: Cambridge University Press.
- Pesetsky, David, and Esther Torrego. 2001. T-to-C movement: causes and consequences. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 355–426. Cambridge, MA: MIT Press.
- Reglero, Lara. 2006. Spanish subcomparatives: the "obligatory gapping stragegy". In *Selected Proceedings of the 9th Hispanic Linguistic Symposium*, ed. Nuria Sagarra and Almeida Jacqueline Toribio, 67–78. Somerville, MA: Cascadilla Proceedings Project.
- Rialland, Annie, and Stéphane Robert. 2001. The intonational system of Wolof. *Linguistics* 39:893–939.
- Richards, Norvin. 1997. What moves where in which language. Doctoral Dissertation, MIT, Cambridge, MA.
- Rodrigues, Cilene, Andrew Nevins, and Luis Vicente. 2009. Cleaving the interactions between sluicing and preposition stranding. In *Romance Languages and Linguistic Theory 2006*, ed. W. Leo Wetzels and Jeroen van der Weijer, 175–198. Amsterdam: John Benjamins Publishing Company.
- Romero, Maribel. 2005. Concealed questions and specificational subjects. *Linguistics and Philosophy* 28:687–737.
- Russell, Margaret A. 2006. The syntax and placement of Wolof clitics. Doctoral Dissertation, University of Illinois at Urbana-Champaign, Urbana, IL.
- Schlenker, Phillipe. 2003. Causal equations (A note on the connectivity problem). *Natural Language and Linguistic Theory* 21:157–214.
- Torrence, Harold. 2005. On the distribution of complementizers in Wolof. Doctoral Dissertation, University of California, Los Angeles, Los Angeles, CA.
- Torrence, Harold. to appear. A promotion analysis of Wolof clefts. Syntax.
- Zribi-Hertz, Anne, and Lamine Diagne. 2002. Clitic placement after syntax: Evidence from Wolof person and locative markers. *Natural Language and Linguistic Theory* 20:823–884.

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