A Promotion Analysis of Wolof Relative Clauses

HAROLD TORRENCE
University of California, Los Angeles

0. Introduction

This paper presents an analysis of relative clauses in Wolof, an Atlantic language spoken principally in Senegal and The Gambia, exemplified in (1)a-b below:

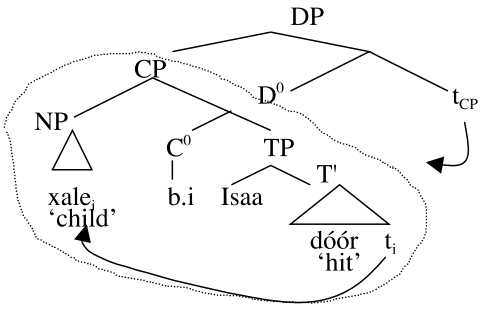
(1) a. jigéén j.i Dudu gis-óón — direct object relative
woman CL.*i* Dudu see-PAST
'the woman that Dudu saw'

b. nit ñ.a dem ca kër gë — subject relative
people CL.*a* go P house the[1]
'the people there who went to the house'

I will present support for a promotion analysis of relative clauses in Wolof (Vergnaud 1974, Kayne 1994) and argue that relative clauses like (2)a are derived as in (2)b:

(2) a. xale **b.i** Isaa dóór
child CL.*i* Isaa hit
'the child that Isaa hit'

b.



[1] Abbreviations: CL-class, DEF-definite, INDEF-indefinite, P-preposition, XPL-expletive.

Specifically, there are three points which I will argue for here, and which are shown in the tree in (2)b. First, it will be seen that the CL.*i* element is an agreeing complementizer, not a relative pronoun. Second, I will show that the head of the relative clause, *xale* 'child', in (2) raises from inside of TP to Spec,CP. Third, evidence will show that relative clauses in Wolof involve a [$_{DP}$ D^0 [CP]] structure in which the CP raises to Spec,DP (Kayne 1994).

In Section 1, I present the basic facts of Wolof and a description of simple relative clauses. Section 2 contains arguments that the CL.*i* element is an agreeing complementizer. Section 3 presents data showing that the relativized NP is promoted from inside of TP. Section 4 covers CP raising. The final section summarizes the conclusions.

1. The Basics

Wolof is an SVO language with prepositions, postnominal relative clauses, and twelve basic noun classes:

(3) xale b.i lekk-na a.m mbonaat ca kër g.ë
child CL.DEF eat- *na* INDEF.CL turtle P house CL.DEF
'the child ate a turtle at the house'

That the nouns *xale* 'child', *mbonaat* 'turtle', and *kër* 'house' belong to different noun classes can be seen from the distinct manifestations of class agreement on the determiners. Thus, with *xale*, the class consonant is *b-*, for *mbonaat* it is *m-*, while for *kër* it is *g-*. In Torrence (2003, 2005), I argue that the element glossed as *-na* is a complementizer that occurs low in the clause.

Wolof relative clauses have *-i*, *-a*, or *-u* on the left edge, preceded by the relativized NP:

(4) a. xale b.**i** jigéén ñi dàq -*i*-relative clause
child CL.i woman the.PL chase
'the (proximal) child that the women chased'

b. xale b.**a** jigéén ñi dàq -*a*-relative clause
child CL.a woman the.PL chase
'the (distal) child that the women chased'

c. kéwél g.**a** jigéén ñi dàq -*a*-relative clause
gazelle CL.a woman the.PL chase
'the (distal) gazelle that the women chased'

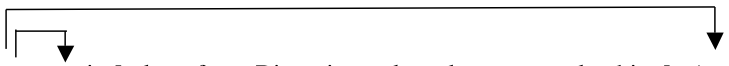
d. xale b.**u** jigéén ñi dàq -*u*-relative clause
child CL.*u* woman the.PL chase
'a child that the women chased'

The underlined strings in (4), the "relative markers," consist of *-i/-a/-u* preceded by a class consonant that agrees with the relativized NP. As the translations indicate, the presence of *-u/-i/-a* corresponds to definite versus indefinite interpretations of the relative clause head. When *-i* is present, the head of the relative clause is interpreted as definite and proximal; when *-a* is present, the head NP is definite and distal, while when *-u-* appears, it signals that the relativized NP is indefinite. In this paper, I concentrate on the *-i/-a* relative clauses and exemplify only with *-i-* relatives, although the same facts hold of the *-a-* relatives.

Note first that the vowels *-i/-a* occur as definite determiners, follow the NP, and agree with the NP in class:

(5)	a. meew m.**i**	'the milk here'	cin	l.**i**	'the pot here'[2]	*-i-*
	b. meew m.**a**	'the milk there'	cin	l.**a**	'the pot there'	*-a-*

The TP that occurs in a relative clause can contain tense, negation, and subject and non-subject clitics. In addition, the definite article optionally appears on the right edge, following the entire TP. The definite article agrees with the relativized NP, even though it may be separated by much material (agreements are indicated by the arrows):



(6) meew m.i [$_{TP}$ leen-fa Bintë jox- al- ul woon xale bi] (m.i)
milk CL.*i* 3PL-LOC Binta give-BEN-NEG PAST child the CL.DEF
'the milk that Binta did not give to the child for them'

The non-subject clitics, *leen* and *fa*, in (6) are quite high in the structure and precede the DP subject, *Bintë*. That the first occurrence of the string *m.i* in (6), immediately following the relativized NP *meew* 'milk', is not the determiner is suggested by the fact that the "DP" variant of (4)d is ungrammatical:[3]

(7) *xale b.u
child CL.*u*
'the child'

If the position immediately following the relativized NP were the position of the determiner, it is expected that (7) would be good, contrary to fact. Thus, the

[2] The *-u-* is also found in the indefinite determiner, which precedes the noun and agrees in class with it:

(i) **u.b** xale
u.CL child
'a child'

[3] The form in (7) is reported to be good in some dialects.

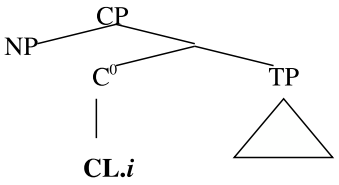
determiner is what appears on the far right, following TP. Relative clauses can be represented templatically as:

(8) a. [$_{CP}$ NP CL.*i* [$_{TP}$ Clt_S-Clt_O-Clt_{Loc} S V O]] (CL.*i*) -*i*-relative clause
b. [$_{CP}$ NP CL.*a* [$_{TP}$ Clt_S-Clt_O-Clt_{Loc} S V O]] (CL.*a*) -*a*-relative clause

2. The Status of *-i/-a*

This section addresses the status of *-i/-a* in the relative markers. Two immediate possibilities come to mind based on crosslinguistic considerations: relative pronouns and complementizers. That the relative markers are relative pronouns is plausible because they agree with the head noun and look like determiners. An analysis in which *-i/-a* are complementizers has initial appeal because the relative markers occur on the left edge of the clause, where complementizers typically occur in the language and agreeing complementizers are known from other languages (e.g. French *que/qui* alternation, Kayne 1975). I will argue that the relative markers are complementizers that agree with the NP in their specifier, as below:

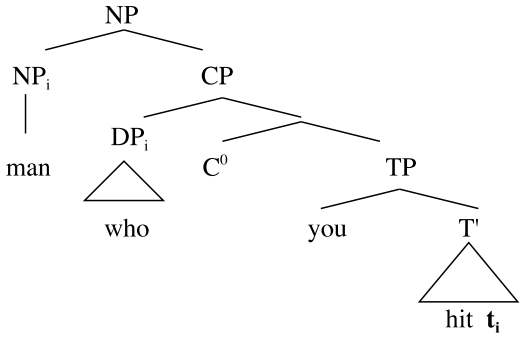
(9)



Before analyzing Wolof, consider first relative pronouns in English:

(10) a. the man who you hit

b.

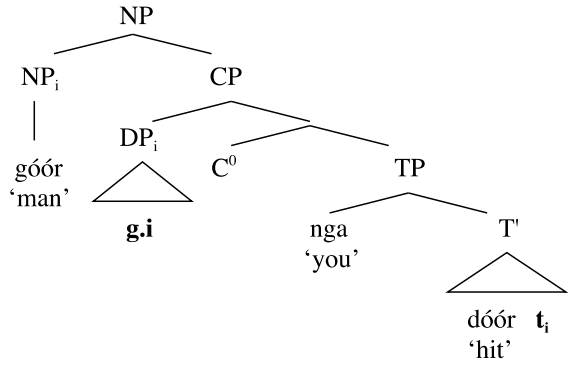


In the example above, the relative pronoun *who* is merged as the complement of *hit*. It undergoes A´-movement to Spec,CP, where C^0 is silent. The relative CP itself is an adjunct to NP. Roughly, the "head" of the relative clause, *man*, is

coindexed with the relative pronoun, giving rise to the interpretation of the man as the object of *hit*. An important point here is that *man* is never inside of TP in this analysis. Translating this relative pronoun analysis to Wolof, the derivation of (11)a is sketched in (11)b.

(11) a. góór **g.i** nga dóór
man CL.*i* 2sg. hit
'the man who you hit'

b.



In (11)b, the putative relative pronoun, *g.i*, is merged as the complement of *dóór* 'hit'. It raises to Spec,CP, where C^0 is silent, as in English. The head of the relative clause, *góór* 'man', is coindexed with the relative pronoun, which agrees overtly in class with the *góór*.

The principal argument against a relative pronoun analysis comes from the fact that it is possible to iterate *-i*:

(12) a. ?tééré **b.i** ñu foog [$_{CP}$ **b.i** ma jàng][4]
book CL.*i* 3pl. think CL.*i* 1sg. read
'the book that they think I read'

b. ?nit **ñ.i** nga wax Bintë [$_{CP}$ **ñ.i** Gàllaay dàq]
people CL.*i* 2sg. tell Binta CL.*i* Gallaay chase
'the people who you told Binta that Gallaay chased'

[4] Note that (12)a and b have question marks. The most natural way of doing relativization from an embedded clause is with a cleft:

(i) tééré b.i ñu foog ne [$_{CP}$ l- a-a jàng]
book CL.*i* 3pl. think *ne* XPL-*a*-1sg. read
'the book that they think I read'

(ii) nit ñ.i nga wax Bintë [$_{CP}$ l- a Gàllaay dàq]
person CL.*i* 2sg. tell Binta XPL-*a* Gallaay chase
'the people who you told Binta that Gallaay chased'

In (12)a, the relative marker *b.i* occurs twice: on the left edge of the clause containing *jàng* 'read', and again on the left edge of the clause containing *foog* 'think'. This is unlike the behavior of relative pronouns in English:

(13) *the man **who** you think **who** Gary chased

If the Wolof CL.*i* is a relative pronoun, the iteration is unexpected. This is because under the relative pronoun analysis, *b.i* in (12)a is the complement of *dóór* 'hit'. It is thus mysterious how and why it can occur multiple times. However, if the relative markers are complementizers, multiple occurrence is expected. Complementizers introduce CPs. When there are multiple CPs, multiple complementizers are expected. This is like English *I think **that** you said **that** Bill knows **that**….* From these considerations, I conclude that *-i/-a* are complementizers, not relative pronouns.

3. NP Raising in Relative Clauses

In this section, we consider the relation between the relativized NP *taabal* 'table' and the gap (underlined) inside of TP:

(14) **taabal** j.i [$_{TP}$ xale yi gis __ démb]
table CL.*i* child the.PL see yesterday
'the table that the children saw yesterday'

The main issue is whether *taabal* 'table' in (14) is base generated in its surface position or raised from the position corresponding to the gap.

That movement is involved in Wolof relativization can be seen from the fact that relativization in Wolof is sensitive to both weak and strong islands:[5]

Complex NP

(15) a. téére b.i jigéén ji jox xale yi démb
book CL.*i* woman the give child the.PL yesterday
'the book that the woman gave to the children'

b. *xale$_k$ y.i [téére$_j$ b.i [$_{TP}$ jigéén ji jox **t$_j$** **t$_k$** démb]]
child CL.*i* book CL.*i* woman the give yesterday
'the children that the book that the woman gave yesterday'

Adjunct Island

(16) a. gis- na- a Bintë [laata ñu jox téére yi xale bi].
see- *na*-1sg. Binta before 3pl. give book the.PL child the
'I saw Binta before they gave the books to the child.'

[5] These islands can be repaired with resumptive pronouns.

b. *téére$_i$ y.i ma gis Bintë [laata ñu jox **t$_i$** xale bi]
book CL.*i* 1sg. see Binta before 3pl. give child the
'the books that I saw Binta before they gave the child'

Wh- Island

(17) a. fàtte- na- a k.u sàcc téére bi.
forget- *na-*1sg. CL.*u* steal book the
'I forgot who stole the book.'

b. *téére b.i ma fàtte k.u sàcc
book CL.*i* 1sg. forget CL.*u* steal
'the book that I forgot who stole'

While the island facts show that relativization in Wolof involves movement, they do not show *what* has undergone movement. It could be that the relativized NP has moved. Alternatively, it could be that the relativized NP is base generated and a silent operator has undergone A´-movement. It would then be the silent operator which is responsible for the island sensitivity. That idiom chunks (Vergnaud 1974) can be relativized provides strong support for the promotion analysis of relative clauses.

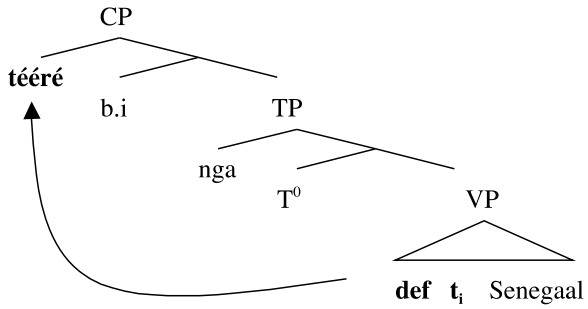
(18) a. def- na- a téére Senegaal. *def téére X* = be dedicated to X
do- *na-* 1sg. book Senegal
'I am dedicated to Senegal.'
(lit. 'I do book Senegal')

b. **téére** b.i nga **def** Senegaal
book CL.*i* 2sg. do Senegal
'the fact that you are dedicated to Senegal'

c. **téére** b.i nga foog ne l- a- a **def** Senegaal
book CL.*i* 2sg. think that XPL-*a-* 1sg. do Senegal
'the fact that you think I am dedicated to Senegal'

(18)a shows the idiom *def téére* in a typical matrix clause. (18)b and c show that part of the idiom, *téére*, can be relativized in a single clause ((18)b) and relativized from an embedded clause ((18)c). Since the idiom itself is a type of lexical item, all of its parts are merged together in TP. Thus, *téére* attains its surface position in Spec,CP by movement from its merge position inside of TP:

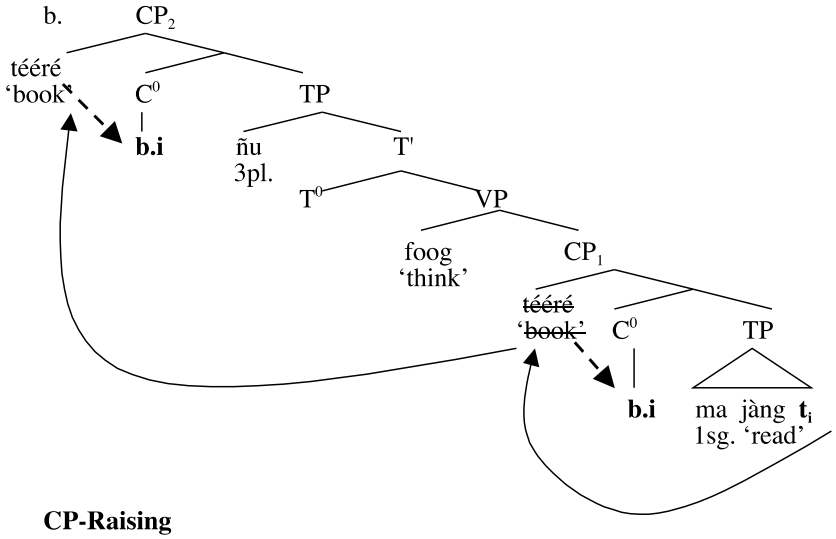
(19)



The conclusion that the relativized NP is promoted from inside of TP means that cases where *-i* is iterated (e.g. 20a) arise through successive cyclic movement of the relativized NP through the intermediate Spec,CPs, as in (20)b:

(20) a. ?tééré **b.i** ñu foog [$_{CP}$ **b.i** ma jàng] (=(12)a)
book CL.*i* 3pl. think CL.*i* 1sg. read
'the book that they think I read'

b.



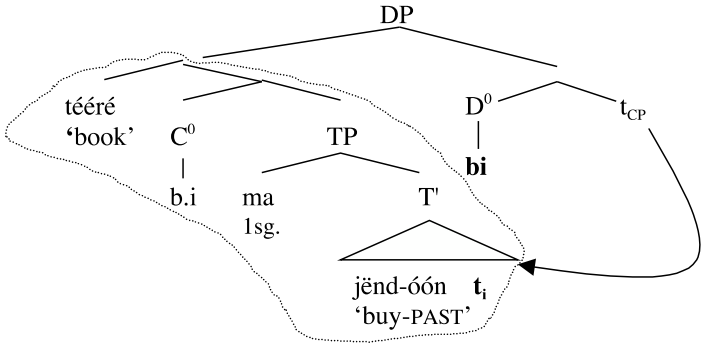
4. CP-Raising

Wolof provides strong support for an analysis of relative clauses as CP complements to D^0, as proposed in Kayne (1994). This is because Wolof shows this configuration overtly. Recall that the definite determiner may optionally appear on the right edge of a relative clause:

(21) [$_{CP}$ téére b.i [$_{TP}$ ma jënd- óón]] **bi**
book CL.*i* 1sg. buy- PAST the
'the book that I bought'

The right peripheral position of the definite determiner, *bi*, follows without stipulation from CP-raising to SpecDP:

(22)



Empirical support for CP raising comes from the distribution of adverbs. Wolof has both run-of-the-mill adverbs like *lool* 'very' ((23)a) and a set of idiomatic adverbs, often called "ideophones," that only occur with particular verbs or classes of verbs ((23)b,c):

(23) a. Isaa ragal- na **lool** xaj bi.
Isaa fear- *na* very dog the
'Isaa is very afraid of the dog.'

b. dagg- na- a yapp wi **fàtiit**. ideophone + verb of cutting
cut- *na*- 1sg. meat the ADV
'I cut the meat in one stroke.'

c. *naan- na- a meew mi **fàtiit** ideophone without verb of cutting
drink- *na*- 1sg. milk the ADV

The adverb *fàtiit* only occurs with verbs of cutting. Both types of adverbs can occur in relative clauses inside of TP. In that case, they precede the definite determiner, because they have been pied piped with CP:

(24) a. [$_{DP}$ [$_{CP}$ xaj [$_{C'}$ b.i [$_{TP}$ Isaa ragal **lool**]]] **bi**]
dog CL.*i* Isaa fear very the
'the dog that Isaa really fears'

b. [$_{DP}$ [$_{CP}$ jën [$_{C'}$ y.i [$_{TP}$ Isaa dàgg **fàtiit**]]] **yi**]
fish CL.*i* Isaa cut ADV the.PL
'the fish that Isaa cut in one stroke'

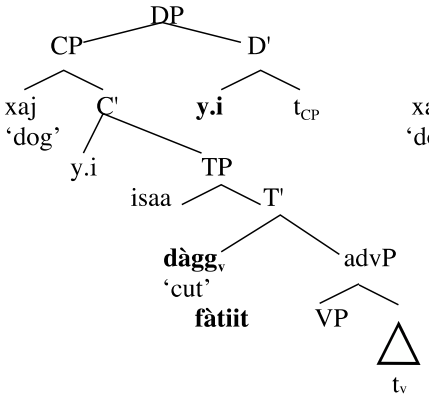
Strikingly, both types of adverbs can also be "stranded" to the right of the definite determiner:

(25) a. [$_{DP}$ [$_{CP}$ xaj bi Isaa ragal **t$_k$**] [$_{D'}$ **bi** **lool$_k$**]
dog CL.*i* Isaa fear the very
'the dog that Isaa is very afraid of'

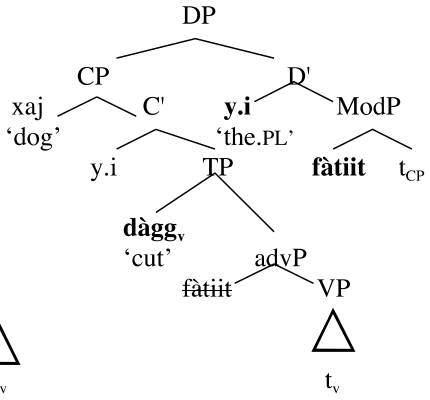
b. [$_{DP}$ [$_{CP}$ xaj [$_{C'}$ y.i [$_{TP}$ Isaa dàgg]]] [$_{D'}$ **yi** **fàtiit**]

(26) Adverb positions

a. Adverb in TP



b. Adverb in ModP



5. Summary

In this paper, I have argued for several points. A promotion analysis of Wolof relative clauses is supported by idiom chunk relativization. I also concluded that the relative markers are agreeing complementizers, not relative pronouns as in English. This conclusion is based on the possibility of multiple occurrences of the relative markers. Finally, it was argued that Wolof relative clauses involve [D^0 [CP]] structures, where CP is the complement of D^0. In Wolof, this is seen overtly. However, in Wolof, CP raises to Spec,DP. This movement can be detected by the stranding of adverbs.

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Harold Torrence
University of Kansas
Department of Linguistics
1541 Lilac Lane, Blake Hall – Room 427
Lawrence, KS 66044-3177

torrence@ku.edu