

# Long Distance *Wh*-Movement in Sereer

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This paper presents novel data from Sereer, a North Atlantic language of Senegal. I show that Sereer provides evidence that successive cyclic movement through lower CP phase edges is triggered by feature checking. Moreover, I argue that the Sereer data show movement through CP phase edges and *vP* phase edges is motivated by formally distinct mechanisms.

In Sereer, long-distance *wh*-questions require a resumptive element in a left edge position of each embedded clause along the path of extraction. In (1a), the *wh*-word *xar* ‘what’ has been displaced from the embedded object position to the left edge of the matrix clause. Both the matrix verb *xalaat* ‘think’ and the embedded verb *ga* ‘see’ have the focus suffix *-u*, which marks that a phrase in a verb’s clause has undergone  $\bar{A}$ -movement to a CP-layer position. In addition, the *wh*-word is resumed by the 3SG pronoun *ten* at the left edge of the embedded clause following the declarative C *yee*. Example (1b) illustrates these features with extraction from two embedded clauses.

In this paper, I argue that such left-periphery resumptive pronouns are actually the overt spell-out of copies of the moved *wh*-phrase. Evidence for this analysis comes from island constraints and reconstruction effects. First, the presence of a resumptive pronoun in an island does not alleviate ungrammaticality, as in (2). Second, left-edge resumptive pronouns allow for reconstruction into their position and the most embedded gap, as shown by the binding possibilities in (3). Both these facts are predicted if these resumptives are copies of the moved *wh*-phrase.

I argue that the presence of intermediate pronouns in Sereer is an instance of the well-known phenomenon of *wh*-copying, where all intermediate Spec-CPs are filled by copies of the moved *wh*-phrase (??). First, what forces the copies at the edge of each intermediate CP to be spelled-out instead of deleted at PF? Second, why are these copies spelled out in Sereer, but not in a language like English?

I argue that movement to intermediate clause-edges is triggered by feature checking, independent of requirements of other positions higher in the structure. I show that formation of *wh*-questions in Sereer involves two projections in the left periphery. *Wh*-phrases move to Spec-FocP (?) to check an uninterpretable operator feature on  $\text{Foc}^0$ . Both the matrix *wh*-phrase and the embedded copy pronouns surface in this position. Interrogative semantics is established by a valued WH-feature on  $\text{Force}^0$  (?), which values an unvalued WH feature on the *wh*-phrase via Agree. This structure is shown in (4).

Under this analysis, all movement to lower clause-edges in long-distance movement is feature driven. This is contra claims that only the last step of successive cyclic movement is triggered by feature checking/valuation (i.e. ? ?). Evidence for such feature checking is given by the focus suffix *-u* found on each verb along the path of extraction. I take this morphology to spell out a checked [*uOP*] feature. Independent evidence for movement being triggered by [*uOP*] and not [WH] comes from the fact that the suffix *-u* surfaces in other long-distance  $\bar{A}$ -constructions, such as relative clauses, as shown in (5). If movement were triggered by [WH], we would not expect to see focus morphology in relative clauses, which do not involve a [WH] feature (?).

Because movement to intermediate Spec-FocPs is triggered by feature checking, I argue that these positions are potential terminal landing sites. As such, each copy in these positions forms the head of its own unique movement chain. Therefore, successive movement does not consist of one long chain, but rather a series of conjoined smaller chains (?). It follows that a copy may get spelled out in this position, since heads of a chain are usually spelled out.

As is, this analysis does not explain why some languages spell out intermediate copies (i.e. Sereer, German, dialect Dutch), while others don’t (i.e. English, French, Irish). Notice, however, that intermediate copies have an ambiguous status: they act simultaneously as the head of one chain and the tail of another. Here, I argue that this ambiguity is not tolerated by the grammar. I propose the **Heads/Tails Parameter**, in (6), which dictates that a language must treat medial copies either as the head of a chain or as the tail of a chain. This, along with the independently needed principle in (7) will derive the difference between English and Sereer neatly. In addition, (6) predicts that we will never find a language that spells out some medial copies but not others. This prediction is borne out (?).

It has been shown that successive-cyclic movement proceeds through the edge of each CP and *vP* along the path of movement (?). Note, however, that *wh*-copying languages like German or Sereer only spell out intermediate copies at clause-edges, never at the edges of *vP*. Thus, under the current analysis, movement to the edge of *vP* cannot involve feature checking, contra ?. This predicts that we will not find languages where overt *wh*-copies surface at the edge of *vP*. I know of no such language.

## Examples

- (1) a.  $\boxed{\text{xar}_i}$  *a xalaat-u* [<sub>CP</sub> *yee*  $\boxed{\text{ten}_i}$  *Jegaan a ga'-u* <sub>-i</sub>]  
 what AGR:3SG think-FOC C 3SG Jegaan AGR:3SG see-FOC  
 ‘What does he think Jegaan saw \_?’
- b.  $\boxed{\text{xar}_i}$  *a xalaat-u* [<sub>CP</sub> *yee*  $\boxed{\text{ten}_i}$  *Yande a lay-u* [<sub>CP</sub> *yee*  $\boxed{\text{ten}_i}$  *Jegaan*  
 what AGR:3SG think-FOC C 3SG Yande AGR:3SG say-FOC C 3SG Jegaan  
*a ga'-u* <sub>-i</sub>]]  
 AGR:3SG see-FOC  
 ‘What do you think Yande said Jegaan saw \_?’

- (2) \*  $\boxed{\text{xar}_i}$  *a and-u* [<sub>CP</sub> *ndax*  $\boxed{\text{ten}_i}$  *Ami a jik-u* <sub>-i</sub> ]  
 what AGR:3SG know-FOC C<sub>int</sub> 3SG Ami AGR:3SG buy-FOC  
 ‘What does he know whether Ami bought \_?’

- (3)  $\boxed{\text{foto}_k \text{ xoox } \text{um}_i / \text{den}_j}$  *fum a\_j nqalaat-u* [<sub>CP</sub> *yee*  $\boxed{\text{ten}_k}$  *Jegaan\_i a ga'-u* <sub>-k</sub>]  
 photo REFL 3SG/3PL which AGR:3PL know.PL C 3SG Jegaan AGR:3SG see-DV  
 ‘Which picture of himself/themselves do they think Jegaan saw \_?’

- (4)  $\left[ \begin{array}{c} \text{AGREE} \\ \text{ForceP Force}_{[\text{WH};+]} \left[ \begin{array}{c} \text{ForceP Force}_{[\text{FocP } \text{xar}_{[\text{WH};+, i\text{OP}]}]} \text{FOC}_{[u\text{OP}]} \dots \text{ForceP Force}_{[\text{FocP } \text{xar}_{[\text{WH};-, i\text{OP}]}]} \text{FOC}_{[u\text{OP}]} \text{TP} \dots \text{xar} \dots \end{array} \right. \end{array} \right]$   
 MOVE MOVE

- (5) *okoor oxe* [<sub>CP</sub> *xalaat-oo-na* [<sub>CP</sub> *yee ten Jegaan a ga'-u* <sub>—</sub> ]]  
 man DET think-FOC.AGR:2S-REL C 3SG Jegaan AGR:3SG see-FOC  
 ‘the man who I think Jegaan saw’

- (6) **The Heads/Tails Parameter:** An item must be unambiguously identified as the head or tail of a chain. When an item is ambiguous to head/tail status, Languages resolve this difference in one of two ways:

- i. That item is treated as the tail of a chain. (English, French, Irish)
- ii. That item is are treated as the head of a chain. (Sereer, German, dialectal Dutch)

- (7) Spell out the heads of chains.