

On clitic left dislocation in Zulu*

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1. Introduction

In this paper I examine the syntax of clitic left dislocation in Zulu, a Bantu language spoken in South Africa which belongs to the Nguni group (Guthrie's Zone S 40). Zulu clitic left dislocation constructions are illustrated in (1) and (2):¹

(1) *Ushukela* abantwana ba-ya-wu-thand-a.
sugar3 child2 SP2-FOC-OC3-like-FV
'Sugar, the children like (it).'

(Cope 1984: 41)

(2) *Incwadi* ngi-cabanga ukuthi umfana u-ya-yi-fund-a.
book9 1stSG-think that boy1 SP1-FOC-OC9-read-FV
'The book, I think the boy is reading (it).'

(van der Spuy 1993: 342)

In (1) and (2), a clause-initial topic phrase corresponding to the object of the verb in the associated sentence is linked to a resumptive pronoun (in italics) which has incorporated into the verb as an object clitic.² The object clitic agrees with the noun class (gender) of the left-dislocated DP.³

One of the most influential studies of clitic left dislocation in Bantu is Bresnan & Mchombo's (1987) analysis of Chichewa left (and right) dislocation. Bresnan and Mchombo treat left-dislocated phrases in constructions similar to (1) and (2) in Chichewa as extra-sentential, free-floating discourse topics. According to their theory, there is no grammatical relation between the left-dislocated topic and the incorporated clitic. Instead, the dislocate is linked to the associated sentence merely through anaphoric binding of the incorporated pronoun.

In this paper I want to show that, in contrast to what Bresnan and Mchombo suggest for Chichewa, the properties of Zulu clitic left dislocation are not incompatible with, but rather support, an analysis according to which the relation between the dislocate and the clitic in the associated sentence is determined by the rules of sentence grammar. More specifically, I want to provide evidence which suggests that Zulu clitic left dislocation constructions are in fact

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¹ In the glosses, I mark the noun classes and agreement through numbers, according to Meinhof's (1906) numbering system of Proto-Bantu. Morphemes are glossed as follows: ABS = absolute pronoun; AUX = auxiliary; COP = copula; DEM = demonstrative pronoun; FOC = focus; FV = final vowel; INF = infinitive marker; LOC = locative; NEG = negative marker; OC = object clitic; PC = pronominal clitic; POSS = possessive marker; PL = plural; RC = relative concord; RS = relativising suffix; SG = singular; SP = subject prefix; TNS = Tense.

² There is no standard term for Bantu pronominal object markers in the literature. These elements have been referred to as "pronominal infixes" (Duranti 1979), "pronouns in the OM [object marker, JZ] clitic position" (Hyman & Duranti 1982), "cliticized object prefix[es]" (Allan 1983), or "incorporated pronouns" (Bresnan & Mchombo 1987, Demuth & Johnson 1989). I therefore use the terms "object marker", "object pronoun" and "object clitic" indiscriminately in this paper.

³ Following Abney (1987) and much subsequent work, I take noun phrases to be DPs (determiner phrases), i.e. projections of a functional D-position.

derived by *syntactic movement* of the topicalised DP from a position inside the associated clause. I demonstrate how this view can be theoretically implemented by adopting a proposal, advocated in work by Cecchetto (1999, 2000), Belletti (1999) and Boeckx (2003), among others, according to which the topic phrase and the resumptive clitic in Zulu left dislocation constructions are merged into the structure as one constituent. When the topic is left-dislocated by movement, the clitic is stranded in the associated clause and incorporates into the verb as an object marker.

Most of the data I present in the following sections are syntactic in nature and based on standard tests which are typically used in order to establish whether a particular type of left dislocation construction is derived by movement (see, for example, the various contributions in Anagnostopoulou et al. 1997). However, since the syntactic properties of left dislocation constructions are sometimes correlated with their pragmatic properties, I begin my discussion in section 2 by examining what kind of discourse topics can be introduced by clitic left dislocation in Zulu. I then show in section 3 that Zulu clitic left dislocation exhibits so-called connectivity effects, and I claim on the basis of this observation that this construction is derived by movement. In sections 4 and 5 I discuss two potential problems for the movement analysis: the absence of weak crossover (section 4) and superiority effects (section 5) in Zulu clitic left dislocation. In section 6, I finally turn to the striking fact that Zulu clitic left dislocation is not sensitive to island constraints. I demonstrate that this property is compatible with a movement analysis if the theory proposed in Boeckx (2003) is adopted, which assumes that the use of resumptive pronouns licenses extraction out of islands.

2. The discourse properties of Zulu clitic left dislocation

Although most generative analyses of left dislocation focus on the syntactic properties of this construction, some studies also compare different types of topic left dislocation with respect to their discourse properties (see Rodman 1974/1997; Cinque 1983/1997; Villalba 2000). In these works, it has been observed that assertions about topics which are already established in the discourse are normally made by means of left dislocation constructions in which the dislocate is grammatically linked to a position in the associated sentence (e.g. through a movement chain). In contrast, so-called "hanging" topic left dislocation constructions, in which the dislocate is base-generated in the left periphery of the sentence, are preferably used to introduce new or unexpected topics in the discourse. In the light of this correlation between the syntax of a left dislocation construction and its discourse properties, it may be worthwhile to take a look at the discourse properties of Zulu clitic left dislocation in order to see whether they reveal anything about the syntactic relation between the topic and the associated clause.

It turns out that Zulu clitic left dislocation can serve both purposes. It can be used to comment on a given topic, (3a) and (4a), but it is also appropriate when the attention is shifted to a new discourse topic, (3b) and (4b) (the dialogues in (3) and (4) are based on similar examples constructed for English and Italian in Rodman (1974/1997) and Cinque (1983/1997)):

- (3) a. Q: Yini ongangitshela yona ngoJohn?
'What can you tell me about John?'
A: UJohn intombazana i-m-qabul-ile.
John1a girl9 SP-OC1a-kiss-PERF
'John, the girl kissed (him).'
- b. Q: Yini ongangitshela yona ngoJohn?
'What can you tell me about John?'

- A: Lutho. Kodwa *uBill* intombazana *i-m-qabul-ile*.
 nothing but Bill girl9 SP-OC1a-kiss-PERF
 'Nothing. But Bill, the girl kissed (him).'
- (4) a. S1: Mina nobhuti kufanele siqale siqoqe. Siya e-Australia kusasa.
 'Me and my brother must start packing. We're going to Australia tomorrow.'
 S2: *Ubhuti wa-kho a-ba-ka-m-niki ngisho iVisa*.
 brother1a POSS1a-PC2ndSG NEG-2rdPL-yet-OC1a-given even visa5
 'Your brother, they haven't even given a visa yet.'
- b. S1: Buka, sengizilungisele vele ukuya e-Australia.
 'Look. I have already packed for Australia.'
 S2: Kuhle. *Ubhuti wa-kho a-ba-ka-m-niki ngisho iVisa*.
 good brother1a POSS1a-PC2ndSG NEG-3rdPL-yet-OC1a-given even visa5
 'Good. Your brother, they haven't even given him a visa yet.'

The data in (3) and (4) can be interpreted in two different ways. If the syntactic properties of left dislocation can really be correlated with the discourse function of the topic, then it would have to be concluded that Zulu clitic left dislocation is syntactically ambiguous (for example, one could assume that the left dislocation constructions in (3a) and (4a) are derived by movement, while those in (3b) and (4b) involve base-generation). However, the examples in (3) and (4) could equally well be construed as evidence that the alleged correlation between the syntax and the pragmatics of left dislocation is not robust and that Zulu, from a syntactic point of view, has only one type of clitic left dislocation which can fulfill different discourse functions. The above data do not reveal which of these two interpretations is correct. In order to establish whether Zulu clitic left dislocation is derived by movement or base-generation, we have to examine the syntactic properties of this construction.

3. Connectivity

In this section I show that with respect to binding phenomena, a dislocated DP in Zulu behaves as if it were in the position occupied by the clitic in the associated clause. This type of property is usually referred to as a "connectivity" or "reconstruction" effect. For reasons of space, I restrict my discussion of connectivity effects to Condition C of the Binding Theory and bound pronouns in operator-variable constructions.

3.1 Condition C

Consider the following examples, which each involve a pronoun and a coreferential proper name:⁴

- (5) a. *Yena_i u-thand-a imoto kaJohn_i.
 ABS1a SP1a-like-FV car9 of.John1a
 'He likes John's car.'

⁴ For ease of exposition I have provided examples with full (so-called absolute) pronouns in subject position. The judgements about the data in (5) and (6) remain the same if the subject pronouns are dropped (realised as the phonetically null element pro).

- b. **Imoto kaJohn_i yena_i u-ya-yi-thand-a.*
 car9 of.John1a ABS1a SP1a-FOC-OC9-like-FV
 'John's car, he likes (it).'
- (6) a. **Yena_i u-bon-e abantwana ba-kaThandi_i.*
 ABS1a SP1a-see-TNS child2 SP2-of.Thandi
 'She saw Thandi's children.'
- b. **Abantwana bakaThandi_i yena_i u-ba-bon-ile.*
 child2 SP2-of.Thandi ABS1a SP1a-OC2-see-TNS
 'Thandi's children, she saw (them).'

In (5a) and (6a), the referential (R-)expressions *kaJohn* and *kaThandi*, which are part of the complex DPs in object position, are c-commanded by and co-indexed with the subject pronouns. Consequently, a Condition C violation occurs. In (5b) and (6b), the object DPs have been left-dislocated, and as a result, the R-expressions are no longer overtly c-commanded by the subject pronouns. However, coreference remains excluded.

If the left-dislocated DPs in (5b) and (6b) were base-generated in the left periphery of the clause (i.e. if they were "hanging" or "free-floating" topics), then the ungrammaticality of these examples would be difficult to explain. In contrast, the Condition C-effects in (5) and (6) follow straightforwardly if it is assumed that clitic left dislocation constructions in Zulu are derived by movement. According to the so-called copy theory of movement, a moved constituent leaves behind an identical copy which is not pronounced at PF, but "visible" for Binding Theory at LF (cf. Chomsky 1995; Heycock 1995; Fox 1999; Safir 1999). Thus, if clitic left dislocation in Zulu is a movement operation, then the syntactic representation of the sentence in (5b) roughly corresponds to the LF in (7), in which the copy of the dislocate is located in the c-command domain of the subject pronoun:

- (7) [_{DP} *Imoto kaJohn*] yena uyayithanda [_{DP} imoto kaJohn].

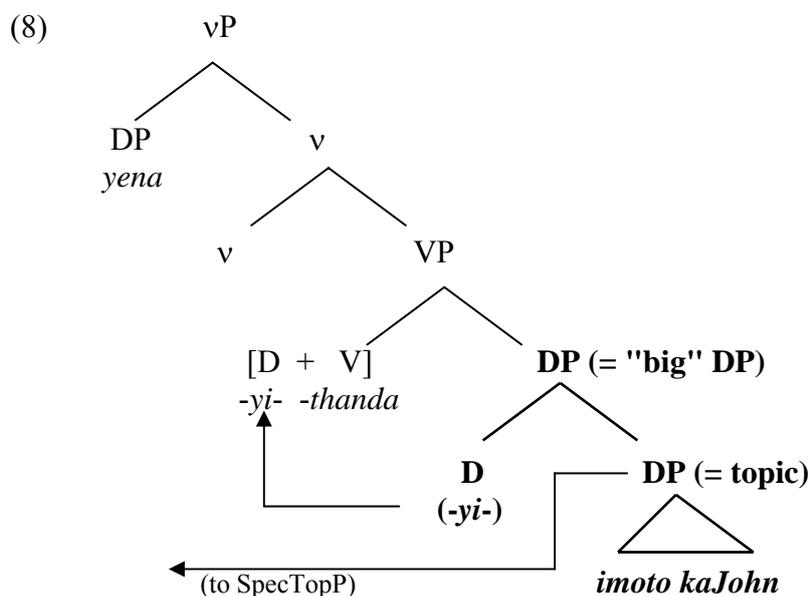
(7) explains why (5b) violates Condition C in the same way as (5a) does. If *kaJohn* and *yena* are co-indexed, the R-expression inside the copy of the moved topic is bound by the subject at LF.

The idea that clitic left dislocation constructions are derived by movement is of course not new, but has been suggested, among others, by Cinque (1977) and Cecchetto (1999, 2000, 2001) for Italian, by Escobar (1997) for Spanish, by Aoun & Benmamoun (1998) for Lebanese Arabic and by Villalba (2000) for Catalan. An obvious question that all these movement approaches to left dislocation have to address concerns the syntactic relation between (the copy of) the moved dislocate and the resumptive clitic. A prominent answer to this question, which is based on the analysis of clitic doubling in Romance presented in Uriagereka (1995), has been proposed for Italian by Cecchetto (1999, 2000, 2001) (see also Belletti 1999; Aoun, Choueiri & Hornstein 2001; Boeckx 2003). According to Cecchetto's analysis of clitic left dislocation, the dislocated topic and the resumptive pronoun start out as one constituent, a so-called "big" DP. The resumptive pronoun is the head of the "big" DP and is merged with the topic phrase; when the topic is moved, the resumptive pronoun is stranded.

This proposal can straightforwardly be adopted for Zulu clitic left dislocation constructions such as (5b) and (6b). The pronominal clitic functions as the head of the "big" DP and selects the topic DP as its complement; the "big" DP itself is merged into the structure as the object of the verb. When the head of the "big" DP undergoes head movement and adjoins to V, the clitic is incorporated into the verbal morphology as an object marker.⁵ Once the clitic has

⁵ The fact that the clitic incorporates into V before further morphology is added explains the observation that in Zulu, as in most Bantu languages, object markers immediately precede the verb stem (Wald 1979).

merged with the verb, the topic-DP can move from inside the "big" DP to a sentence-initial landing site, which I take to be the specifier of a functional topic projection (SpecTopP) within a recursive C-system, along the lines of Rizzi (1997):⁶



As the following example shows, when topic phrases in Zulu are left-dislocated in non-root contexts, they follow declarative complementisers such as *ukuthi*. This is predicted by Rizzi's (1997) theory, in which these complementisers are associated with the functional category Force, which selects the category Top:

- (9) UMlungisi u-zw-e ukuthi *imoto* uNomathemba u-yi-theng-ile.
 Mlungisi1a SP1a-hear-TNS that car9 Nomathemba1a SP1a-OC9-buy-TNS
 'Mlungisi heard that a car, Nomathemba bought (it).'

Recall that the discourse properties of Zulu discussed in section 2 were in principle compatible with the view that Zulu has two types of clitic left dislocation (one derived by movement and one derived by base-generation). However, the examples in (5) and (6) strongly suggest that clitic left dislocation in Zulu is *not* syntactically ambiguous. If clitics in Zulu could resume base-generated topics, then it should also be possible to construct the examples in (5) and (6) in such a way, in order to avoid illicit binding of the R-expression contained inside the dislocate. In other words, we would expect that, given the right context, left dislocation can bleed Condition C. Since this does not seem to be possible, I assume that Zulu clitic left dislocation constructions are unambiguously derived from a structure like (8) via movement.

This movement approach gains further support from the data in (10) and (11), which show that Zulu clitic left dislocation also exhibits a familiar contrast between R-expressions contained in complement clauses and R-expressions contained in adjuncts:

- (10) a. *Yena_i a-ka-wa-kholw-a amahemuhemu okuthi
 ABS1a NEG-SP1a-OC3-believe-FV rumour6 that
 uThandi u-thand-a uVusi_j.
 Thandi1a SP1a-love-FV Vusi1a
 'He doesn't believe the rumours that Thandi loves Vusi.'

⁶ I leave open the question of whether extraction of the topic phrase proceeds via the specifier of the "big" DP, as is assumed in Boeckx (2003), or whether the topic is extracted directly from its complement position.

- b. ??/**Amahemuhemu okuthi uThandi u-thand-a uVusi_i yena_i*
 rumour6 that Thandi1a SP1a-love-FV Vusi1a ABS1a
 a-ka-wa-kholw-a.
 NEG-SP1a-OC3-believe-FV
 'The rumours that Thandi loves Vusi, he doesn't believe (them).'

- (11) a. **Yena_i u-qabul-e abafazi uVusi_i a-ba-thanda-yo.*
 ABS1a SP1a-kiss-TNS woman2 Vusi1a RC1a-OC2-love-RS
 'He kissed the women whom Vusi loves.'
 b. *Abafazi uVusi_i a-ba-thanda-yo yena_i u-ba-qabul-ile.*
 woman2 Vusi1a RC1a-OC2-love-RS ABS1a SP1a-OC2-kiss-TNS
 'The women whom Vusi loves, he kissed (them).'

In both (10a) and (11a), coreference of the R-expression and the c-commanding pronoun is excluded. As (10b) shows, left dislocation of the object DP and its complement clause that includes the R-expression does not obliterate the Condition C-effect; for most speakers, coreference of *uVusi* and the subject pronoun remains impossible. This again follows from the copy theory of movement; the R-expression inside the copy of the dislocated DP is subject to Condition C at LF. However, in contrast to (10b), left dislocation of the object DP in (11b), which is modified with a relative clause containing the proper name, seems to be a way to circumvent a Condition C violation. All speakers I have consulted find that coreference is possible in (11b), in striking contrast to their judgements about (10b).

The contrast between examples such as (10b) and (11b) has also been reported for Spanish, Italian and Navajo left dislocation constructions (Baker 1996: 268, Cecchetto 1999: 43) and has frequently been noted in the literature on other types of A-bar movement. It is well known that R-expressions show so-called "anti-reconstruction"-effects if they are contained in an adjunct which modifies a moved constituent (cf. Van Riemsdijk & Williams 1981; Freidin 1986; Lebeaux 1988; Chomsky 1995; Heycock 1995; Fox 1999):⁷

- (12) a. Which argument that John_i made did he_i believe?
 b. ??/*Which argument that John_i is a genius did he_i believe? (Fox 1999: 181)

Chomsky (1995), following a proposal made in Lebeaux (1988), analyses the contrast depicted in (12) as follows. Whereas the complement clause in (12b) must be merged into the structure together with the noun *before* the wh-phrase undergoes A-bar-movement, the relative clause in (12a), being an adjunct, may be inserted into the structure *after* A-bar movement has already taken place. This means that only the copy of the wh-phrase in (12b), but not the one in (12a), includes the CP which contains the R-expression *John*. Therefore, the R-expression in (12a) is outside the scope of the pronoun *he* at LF, and Condition C is not violated. In contrast, since the copy of the wh-phrase in (12b) contains the R-expression *John*, this DP violates Condition C at LF if it is coreferential with the subject pronoun.

⁷ As indicated by the ?? in the examples in (10b) and (12b), DPs embedded in complement CPs may also fail to show reconstruction effects for some speakers (cf. Van Riemsdijk & Williams 1981: 201), although most speakers detect a systematic difference between reconstruction effects with embedded sentential complements and relative clauses (cf. Freidin 1986: 179). The fact that Condition C reconstruction effects are often less robust in constructions with an R-expression contained inside a complement clause has been noted elsewhere (cf. Guéron 1984; Safir 1999). This may possibly due to the fact that CPs such as the one in (12b) are in fact not true complements of N, but selected adjuncts, as suggested by Safir (1999, note 1). Whatever the reason for the variation of speakers' judgements regarding the constructions in (10b) and (12b), it is important to note that the contrast between (10b) and (11b) is still quite strong. Whereas the majority of speakers noted a Condition C violation in (10b), none of them did so in (11b).

The same analysis can now be adopted for the Zulu data in (10) and (11). We can assume that the relative clause in (11b), which contains the R-expression, is only added after the DP *abafazi* has been extracted from the "big" DP and moved to sentence-initial position. At LF, the copy of the left-dislocated DP therefore does not include the R-expression, and *uVusi* can be coreferential with the subject of the sentence. However, since the complement clause in (10b) is merged with the object DP before left dislocation applies, the R-expression inside the copy of the dislocate is c-commanded by the pronoun at LF, and coreference yields a Condition C violation.

Notice that the argument in favour of a movement approach that was construed on the basis of the data in (5) and (6) is substantially strengthened by the contrast between the examples in (10b) and (11b). Although the copy theory of movement explains the Condition C effects that arise in the examples in (5b) and (6b), one may argue that this is not the only way in which the respective data can be explained. Semantic approaches to reconstruction effects also exist (see Büring 2005 for critical discussion); if such an approach is adopted, then the data in (5b) and (6b) could perhaps be explained without having to assume that Zulu clitic left dislocation is derived by movement. However, it is not clear how a theory which explains the ungrammaticality of the examples in (5b) and (6b) by means of a semantic rule would account for the grammaticality of the example in (11b). Whatever interpretative principle is evoked to rule out a coreferential interpretation in (5b) and (6b), the same principle would certainly also predict disjointed reference in example (11b), which only differs from (5b) and (6b) with respect to the internal syntax of the dislocated DP. This is where the syntax-based copy theory of movement seems to have a clear advantage over any semantic approach to reconstruction. The same conclusion is reached by Büring (2005), who interprets contrasts such as those between (12a) and (12b) as strong evidence in favour of a syntactic treatment of reconstruction effects involving Condition C. The fact that similar contrasts are observed in Zulu clitic left dislocation constructions therefore provides a persuasive argument in favour of a movement analysis.

3.2 Bound Variables

If the conclusion drawn from the preceding discussion is correct, and Zulu clitic left dislocation involves movement which leaves behind a copy of the dislocate, then it is predicted that a bound variable reading of a pronoun should be possible even if the pronoun is contained in the dislocated phrase. The following data confirm this prediction:⁸

- (13) a. Wonke umfundi_i u-ncom-a uthisha wa-khe_i.
 every1 student1 SP1-commend-FV teacher1a POSS1a-PC1
 'Every student commends his teacher.'
- b. ?*Uthisha wa-khe_i wonke umfundi_i u-ya-m-ncom-a.*
 teacher1a POSS1a-PC1 every1 student1 SP1-FOC-OC1a-commend-FV
 'His teacher, every student commends (him).'
- (14) a. Yonke indoda_i i-thand-a imoto ya-yo_i.
 every9 man9 SP9-like-FV car9 POSS9-PC9
 'Every man loves his car.'
- b. ?*Imoto ya-yo_i yonke indoda_i i-ya-yi-thand-a.*
 car9 POSS9-PC9 every9 man9 SP9-FOC-OC9-like-FV
 'His car, every man loves (it).'

⁸ I have marked the (b)-examples as ? in order to represent the fact that for most speakers, the bound variable reading is possible in the (b)-examples, but less prominent than in the (a)-examples.

As the (b)-examples show, a pronoun which is contained in a left-dislocated DP in Zulu can still be bound by a quantifier subject in the associated sentence, although it is not overtly in the scope of the quantifier after left dislocation.⁹

The possibility of bound variable readings of pronouns contained in left-dislocated phrases has also been noted for clitic left dislocation in Lebanese Arabic by Aoun & Benmamoun (1998: 580) and Aoun, Choueiri & Hornstein (2001: 392), for Italian by Cinque (1983/1997: 104), and for Spanish by Zubizarreta (1998: 114). This possibility is also typically assumed to be due to syntactic reconstruction of the moved constituent. In fact, Fox (1999) shows that the bound variable reading of a pronoun contained in a moved constituent *must* be established by syntactic reconstruction and cannot be the result of a semantic mechanism that would yield this interpretation without syntactic reconstruction (as is proposed e.g. in Engdahl 1986; see also Cecchetto 2001). Therefore, the data in (13) and (14) provide additional evidence for the claim that clitic left dislocation constructions in Zulu are derived by movement.

4. Weak(est) Crossover

In this section I discuss the first of three potential counter-arguments to the movement analysis of clitic left dislocation in Zulu. As is well-known, wh-movement may exhibit so-called weak crossover (WCO) effects (Wasow 1972). (15) cannot have the reading expressed by (16):

(15) *Who_i does his_i mother like t_i?

(16) For which x, x's mother likes x?

The impossibility of (15) is commonly attributed to the fact that the wh-phrase has moved across a co-indexed pronoun which is not c-commanded by the wh-trace/copy. Since copies of A-bar moved phrases are (or contain) variables, wh-movement in (15) creates a configuration at LF in which the wh-operator binds two variables (its trace/copy, and the bound pronoun), which constitutes a violation of the Bijection Principle (Koopman & Sportiche 1982).

Since A-bar bound pronouns are always variables (Koopman & Sportiche 1982), one would expect WCO-effects to be attested whenever A-bar movement crosses a co-indexed

⁹ Vat (1981/1997: 70) observes that data judgements concerning the behaviour of bound pronouns in left dislocation structures are 'highly subtle and often murky'. The judgements of some of my informants confirmed this observation. For example, some speakers would accept the bound variable reading only in one of the two examples. My suspicion is that the data in Zulu are complicated by the fact that for some of those speakers, *every*-constructions of the type illustrated in (13) and (14) are already quite marked to begin with. The preferred way of expressing universal statements in Zulu is by means of quantifiers like *all*, as in (i):

(i) Bonke abafundi ba-ncom-a othisha ba-bo.
all-2 student2 SP2-admire-FV teacher2a POSS2a-PC2
'All students admire their teachers.'

Clark (1992: 5) notes that constructions such as (i) show a three-way ambiguity. First, the pronoun may not be bound by the quantifier at all; second, (i) may mean that all students admire all teachers as a group (the group reading); and third, the pronoun may also be interpreted as a bound variable. Under a bound variable reading, (i) means that each student admires his own teacher without necessarily admiring all teachers (in a world where every student only admires his own teacher, (i) would be true under the bound variable reading, but false under the group reading). I only tested the possible interpretations of the left-dislocation variant of (i) with one Zulu speaker, but he claimed that the bound variable reading is still possible in (ii) (in accordance with the general conclusion drawn in the text):

(ii) Othisha babo bonke abafundi ba-ya-ba-ncom-a.
teacher2a POSS2a-PC2 all-2 student2 SP2-FOC-OC2-commend-FV
'Their teachers, all students commend (them).'

pronoun. Therefore, if Zulu clitic left dislocation is indeed A-bar movement, it is predicted to exhibit WCO-effects. However, this prediction is not borne out:

- (17) a. Umama wa-khe_i u-siz-a uCharlise Theron_i.
 mother1a POSS1a-PC1a SP1a-help-FV Charlise Theron1a
 'Her mother helps Charlise Theron.'
 b. UCharlise Theron_i, umama wa-khe_i u-ya-m-siz-a.
 Charlise Theron1a mother1a POSS1a-PC1a SP1a-FOC-OC1a-help-FV
 'Charlise Theron, her mother helps (her).'
- (18) a. Uthisha wa-khe_i u-cabang-a ukuthi le ntombi i-thand-a uJohn_i.
 teacher1a POSS1a-PC1a SP1a-think-FV that DEM9 girl9 SP9-like-FV John1a
 'His teacher thinks that this girl loves John.'
 b. UJohn_i uthisha wakhe_i u-cabang-a ukuthi le ntombi
 John1a teacher1a POSS1a-PC1a SP1a-think-FV that DEM9 girl9
 i-ya-m-thand-a.
 SP9-FOC-OC1a-like-FV
 'John, his teacher thinks that this girl loves (him).'

In the (a)-examples, the possessive pronoun and the name can be interpreted as coreferential.¹⁰ (Since neither of the two c-commands the other, this coreference relation probably falls outside Binding Theory; see Clark 1992). When the name is left-dislocated in (17b) and (18b), both the trace/copy of the dislocate and the possessive pronoun are A-bar-bound and should therefore count as variables. Yet, although the (b)-examples are therefore structurally parallel to the example in (15), they do not display WCO-effects.

However, (17b) and (18b) are not necessarily incompatible with a movement analysis of Zulu clitic left dislocation. Lasnik & Stowell (1991) discuss various types of A-bar-movement which are immune to WCO-effects. Importantly, they show that Topicalisation in English is one of these types:

- (19) This book_i, I expect its_i author to buy t_i. (Lasnik & Stowell 1991: 691)

Although the trace/copy of the dislocate does not c-command the pronoun, co-indexation is possible in (19); (19) hence patterns with the Zulu CLLD-examples in (17) and (18).

Lasnik & Stowell (1991) refer to the unexpected absence of WCO-effects as "weakest crossover". They suggest that WCO-effects are only brought about by A-bar movement of "true quantifier phrases", i.e. quantifiers, wh-phrases, focus operators etc., since only these create operator-variable chains at LF. Importantly, Lasnik and Stowell argue that the dislocated phrases in Topicalisation constructions are *not* true quantifiers and that therefore, a trace/copy of a topicalised constituent does not count as a variable. This explains the weakest crossover effect in (19).

Lasnik & Stowell's (1991) account can also be adopted for clitic left dislocation constructions in Zulu. Topicalisation is a movement operation that displaces a phrase from

¹⁰ Interestingly, one of my consultants did not accept coreference in example (17a), although he could get this reading in (17b). In this respect, note that it has been observed by Kuno (1972), Koopman & Sportiche (1982) and Guéron (1984) that coreference of a name and a possessive pronoun in examples such as (17a) and (18a) is not possible if the name is focused and provides new information:

(i) *His_i mother likes JOHN_i (Guéron 1984:153)

Since focused constituents are "true quantifiers" (in the sense of Lasnik & Stowell (1992); see below in the text) and therefore undergo operator movement at LF, (i) exhibits a WCO-effect. I suspect that my informant may have interpreted (17a) with focus on *Charlise Theron*; since the topic in (17b) is incompatible with such an interpretation, the WCO-effect disappeared.

inside the sentence to its left periphery; the moved phrase typically refers to a topic already introduced in the discourse. As was shown in section 2, the left-dislocated topic in Zulu clitic left dislocation constructions can fulfill the same discourse function. It therefore seems safe to assume that this construction, like Topicalisation in English, is non-quantifier A-bar movement, and the fact that the data in (17) and (18) exhibit "weakest crossover" follows directly. Thus, the absence of WCO-effects in Zulu left dislocation constructions no longer poses a problem for a movement approach.¹¹

5. Superiority

The second potential argument against a movement analysis is provided by the fact that no superiority effects are attested in Zulu clitic left dislocation. (20b-c) show that Zulu allows for more than one topic to be left-dislocated:

- (20) a. UThemba u-cabang-a ukuthi abafana ba-fund-a incwadi.
Themba1a SP1a-think-FV that boy2 SP2-read-FV book9
'Themba thinks that the boys are reading the book.'
- b. *Abafana incwadi* uThemba u-cabang-a ukuthi (*pro*) ba-ya-yi-fund-a.
boy2 book9 Themba1a SP1a-think-FV that (they) SP2-FOC-OC9-read-FV
'The boys, the book, Themba thinks that they are reading (it).'
- c. *Incwadi abafana* uThemba u-cabang-a ukuthi (*pro*) ba-ya-yi-fund-a.
book9 boy2 Themba1a SP1a-think-FV that (they) SP2-FOC-OC9-read-FV
'The book, the boys, Themba thinks that they are reading (it).'

In (20b-c), both the subject and the object of the embedded sentence have been left-dislocated.¹² Importantly, the order in which the dislocated DPs appear in the left periphery is not fixed; the DP corresponding to the embedded subject may precede the DP which is linked to the embedded object, (20b), and vice versa, (20c).

In the light of the idea that topics in clitic left dislocation constructions are moved to the left, the grammaticality of example (20c) is surprising. In many languages, A-bar movement of more than one phrase is subject to the *superiority* condition (Chomsky 1973). According to this condition, the hierarchical order in which the phrases appear after extraction mirrors the structural relation between their base positions. For example, Rudin (1988) observes that in Bulgarian (a multiple wh-fronting language), an extracted wh-subject must c-command (and hence precede) an extracted wh-object. The opposite order, in which the object would c-command the subject, is not possible:

- (21) a. Koy kogo e vidjal?
who whom AUX seen
'Who saw whom?'
- b. *Kogo koy e vidjal? (Richards 1997: 102)

¹¹ The absence of WCO-effects has also been noted for clitic left dislocation in Romance; see e.g. Villalba (2000). As for quantificational A-bar movement, it has been observed that weak crossover effects seem to disappear here as well if the moved phrase is resumed by a pronoun. For example, in languages such as Hebrew and Irish, which can form relative clauses and wh-questions both with and without resumptive pronouns, weak crossover effects are attested if movement leaves a gap, but not if a resumptive pronoun is stranded (see Boeckx 2003).

¹² I assume, following Cinque (1990) and others, that in subject-CLLD, the role of the clitic is fulfilled by pro.

According to the hypothesis that topics in Zulu are moved to the left, we would expect that (20c), in which the embedded object has moved to a position from which it c-commands the topic phrase corresponding to the embedded subject, is ungrammatical.

However, it is well-known that superiority effects are systematically alleviated when the moved phrases are discourse-linked (D-linked; Pesetsky 1987); i.e. when possible answers to a question are restricted to a set of referents which has already been established in the discourse:

- (22) a. Koj profesor koja kniga e vidjal?
 which professor which book AUX seen
 'Which professor saw which book?'
 b. ?Koja kniga koj profesor e vidjal? (Richards 1997: 102)

As was noted in section 2, phrases which have been left-dislocated by movement are typically D-linked and refer back to topics that were already introduced in the discourse. Therefore, the example in (20c) cannot be construed as an argument against a movement analysis for clitic left dislocation. On the contrary, in the light of data such as (22), we expect the order of topic phrases in movement constructions to be flexible.

6. Islands and resumption

The third, and probably most challenging, argument against a movement analysis of clitic left dislocation in Zulu derives from the fact that this construction is possible in so-called island contexts. As is well-known, islands are syntactic configurations which normally block movement operations. For example, Topicalisation in English is banned when the topicalised constituent is extracted out of a complex NP (a strong island), (23a), or out of an indirect question (a weak island), (23b) (see Ross 1967; Chomsky 1977; Lasnik & Saito 1992):

- (23) a. *This book, I accept the argument that John should read.
 b. *This book, I wonder who read. (Chomsky 1977: 91)

In the light of data such as (23), it is surprising that Zulu clitic left dislocation is not obstructed by island boundaries (see also Bresnan & Mchombo 1987 for Chichewa):

Subject island

- (24) a. *Ilayisi* [ukuthi uBev a-li-theng-e] ku-si-mangalis-ile
 rice5 that Bev1a SP1a-OC5-buy-TNS SP15-1stPL-surprise-TNS
 'Rice, that Bev bought it, surprised us.'
 b. *Le ndoda* [uku-yi-vakashel-a] kwa-methus-a uMary.
 DEM9 man9 INF15-OC9-visit-FV SP15+TNS-shock-FV Mary1a
 'This man, visiting him shocked Mary.'

Adjunct island

- (25) a. *UCharlise Theron* abalandeli ba-zo-fik-a ng-ehora lesihlanu
 Charlise Theron1a follower2 SP2-TNS-arrive-FV at-hour of.five
 [ukuze ba-m-bon-e]
 in.order.to SP2-OC1a-see-FV
 'Charlise Theron, the fans will arrive at five o'clock in order to see her.'

- b. *Le ncwadi* uJohn u-hamb-ile e-nga-yi-thenga-nga.
 DEM book9 John1a SP1a-leave-TNS by-NEG-OC9-buy-NEG
 'This book, John left without buying it.'

Complex NP island

- (26) a. *UJohn* uPeter u-sebenza-a [e-pulazi-ni ela-theng-w-a ngu-ye].
 John1a Peter1a SP1a-work-FV LOC-farm5-LOC RC5+TNS-buy-PASS-FV by-PC1a
 'John, Peter works on the farm which was bought by him.'
 b. *Le moto* ngi-thand-a [intombazana e-yi-theng-ile-yo].
 DEM9 car9 1stSG-love-FV girl9 RC-OC9-buy-TNS-RS
 'This car, I love the girl who bought it.'

wh-island

- (27) a. *Izincwadi* uPeter u-cabang-a [ukuthi u-zo-zi-theng-a nini]?
 book10 Peter1a SP1a-think-FV that SP2-TNS-OC10-buy-FV when
 'The books, when does Peter think he will buy them?'
 b. *Umama*, ngi-buz-e [ukuthi y-ini abantwana
 mother1a 1stSG-wonder-TNS that COP-what child2
 aba-m-nik-e yona].
 RC2-OC3-give-TNS ABS9
 'Mother, I was wondering what the children gave her.'

Coordinate structure island

- (28) a. *Ubuthi wa-mi* ngi-cabang-a ng-oMary [na-ye].
 brother1 POSS1-PC1stSG 1stSG-think-FV about-Mary1a and-PC1
 'My brother, I think about Mary and him.'
 b. *??Incwadi ya-khe* uMary u-ya-phek-a [kodwa uSipho
 book9 POSS9-PC1a Mary1a SP1a-FOC-cook-FV but Siphola
 u-ya-yi-fund-a].
 SP1a-FOC-OC9-read-FV
 'His book, Mary is cooking but Sipho is reading it.'

According to the standard view, the fact that clitic left dislocation is insensitive to island constraints is incompatible with a movement analysis. The data in (24)-(28) therefore raise a problem for the conclusion drawn on the basis of the connectivity data discussed in section 3.

One way of solving this problem could be to reconsider the hypothesis that clitic left dislocation in Zulu can be derived not only by movement, but also by base-generation. If the dislocates in (24)-(28) were base-generated in the sentence periphery and merely anaphorically linked to the resumptive clitics inside the islands, then it would trivially follow that no movement constraints are violated in (24)-(28). However, as was already noted above, it is not clear how this idea can be reconciled with the data discussed in section 3. The assumption that clitic left dislocation constructions can be generated either by movement or base-generation incorrectly predicts that binding effects of the sort discussed in section 3 will never arise, since speakers could always construct the respective examples as instances of base-generated "hanging topic" left dislocation. Since a hanging topic is not represented by a copy in the associated sentence, Condition C violations could systematically be avoided.

This problem could perhaps be circumvented by assuming that base-generation is a last resort operation, which is only available in contexts where movement would yield ungrammatical results (such proposals have been made by Shlonsky (1992) for Hebrew and Palestinian Arabic, Prince (1998) for English and Aoun, Choueiri & Hornstein (2001) for

Lebanese Arabic). With respect to the connectivity data, it would then have to be argued that base-generation is unavailable here because the movement option does not yield an ungrammatical sentence, but only excludes a certain interpretation (the one in which a name inside the topic phrase and a pronoun inside the associated sentence are coreferential). However, the last resort-proposal still strikes me as problematic. If grammar allows the base-generation of left-dislocated topics in certain syntactic contexts in order to yield grammatical results, why should this option not be available to yield a grammatical output under a particular reading? As far as I can see, if base-generation of a topic is a last resort option, then it should also be applicable in contexts in which a particular interpretation can otherwise not be obtained.

Since there does not seem to be a non-stipulative way in which the possibility of base-generated clitic left dislocation can be explained without making incorrect predictions about the interpretation of the data discussed in section 3.1, it seems worthwhile to consider an alternative approach, which maintains that Zulu clitic left dislocation in island contexts also involves movement. Obviously, this approach has to explain *why* topics in Zulu clitic left dislocation constructions can be extracted out of islands, although comparable movement constructions in other languages (such as e.g. Topicalisation in English) are clearly sensitive to island constraints.

Such an explanation is offered in Boeckx (2003), who analyses the conditions under which movement out of islands produces grammatical results. The starting point of Boeckx's analysis is the observation that extraction from islands is blocked only when the extracted element leaves a gap, whereas island effects may disappear in constructions with resumptive pronouns. However, Boeckx also argues against the idea that resumption in island contexts involves base-generation. Rather, he maintains that, regardless of the syntactic context, all instances of resumption are derived by movement and involve the stranding of a pronominal head. In order to implement this idea, Boeckx (2003) also adopts the "big" DP-analysis introduced in section 3.1.

Boeckx assumes that movement is potentially unbounded and that there are no specific structural configurations which would prevent a constituent from being extracted. Movement out of islands should therefore in principle be possible. However, Boeckx suggests that in order for movement operations to be licensed, an *agreement* relation must be established between the target of movement and the attracted element. Crucially, Boeckx argues that islands contexts, although not preventing movement *per se* from taking place, block agreement between the attractor and the attractee. Therefore, the impossibility of movement out of an island is a consequence of the absence of agreement. Boeckx's important claim concerning resumption is that the projection of a "big" DP is an alternative strategy by means of which grammar can license movement of an element. According to Boeckx, a phrase which is extracted out of a big DP does not have to agree with its attractor; it is sufficient that a feature of the extracted phrase *matches* a feature of the target.¹³ Since only agreement, but not matching, is blocked in island contexts, movement under resumption is not affected by the intervention of an island.

¹³ Boeckx's theory of resumption is based on the Probe-Goal system of current versions of the Minimalist Program (Chomsky 2000, 2001, 2004, 2005), in which the operation *Move* is assumed to be contingent on the operations *Match* and *Agree*. First, movement requires that a *matching* relation between an attractor (the Probe) and an attractee (the Goal) is established. The Probe is typically the set of uninterpretable ϕ -features of a functional head, and the matching interpretable ϕ -features of the closest phrase in the Probe's c-command domain are the Goal. Second, if a feature (or features) of the Goal match the Probe, *agreement* between the Goal and the Probe is induced. Finally, the phrase containing the Goal can *move* to the specifier of the Probe. Whereas Chomsky (2000) assumes that *Agree* is a prerequisite for *Move*, Boeckx (2003) argues instead that agreement is not a necessary condition for movement and that feature matching does not automatically induce agreement. Therefore, according to Boeckx, if a moved phrase originates inside a "big" DP, it still has to match, but does not have to agree with, the features of the target.

The reason for why extraction out of a "big" DP is possible without agreement follows from intricate aspects of the theory of movement articulated in Boeckx (2003). I cannot discuss this theory in detail here, but the basic idea can be summarised as follows. Once a phrase α has entered a checking relation with a functional head, it can only be attracted by another head if it agrees with the attracting feature.¹⁴ If this agreement cannot be established, movement of α is excluded. However, this does not prevent *a part of* α from being extracted in non-agreement contexts, since this part has not yet entered a checking relation with a functional head. For example, if an object DP enters a checking relation with the functional head v , it is now incapable of undergoing further movement unless it agrees with the attracting head. However, extraction of a part of the object DP is not contingent on agreement. Therefore, in order to allow movement of an object-DP in contexts in which no agreement can be established, grammar may introduce the object as the complement of a resumptive pronoun, inside a "big" DP. While the "big" DP fulfills the function of checking v 's uninterpretable features, its complement DP can now be attracted by a different matching head and undergo A-bar movement.

Boeckx's theory implies that in non-island contexts, both agreement and resumption are available to render movement possible; it therefore correctly predicts that resumption is not restricted to island contexts (a fact which is illustrated by the examples of Zulu clitic left dislocation discussed in the previous sections). However, given that agreement cannot be established in island configurations, resumption is the only way in which extraction out of an island becomes possible. In that sense, resumption is a last resort operation, but importantly, one which does not involve base-generation.¹⁵

Let me illustrate Boeckx's theory by means of a concrete example from Irish, a language which allows both extraction with and without resumptive pronouns:

(29) an t-úrscéal aL mheas mé aL thuig mé
 the novel that thought I that understood I
 'the novel that I thought I understood' (Sells 1984: 129)

(30) *an fear aL phóg mé a bhean aL phós
 the man that kissed I the woman that married
 'the man that I kissed the woman that married' (Sells 1984: 200)

(31) an fear arL bpóg mé an bhean aL phós é.
 the man that kissed I the woman that married him
 'the man that I kissed the woman that married him' (Sells 1984: 201)

In (29), the relative operator has been extracted out of an embedded sentence, and both the attracting and the embedded C-head are realised by the complementiser *aL*. Boeckx takes this to be a reflex of agreement between the matrix C (which has attracted the operator) and (the copy of) the operator inside the embedded clause. (Boeckx suggests that when a matrix C

¹⁴ This is a simplification. The checking relation Boeckx is concerned with is EPP-checking, which always requires movement of a phrase into a specifier position of a functional head which hosts an EPP-feature. Boeckx argues that, for reasons that have to do with the interpretability of chains at the interfaces, a chain formed by movement must not include more than one EPP-position. Therefore, movement from one EPP-specifier to the next is ruled out, unless the two EPP-positions agree (in which case the interface treats them as a unit). This agreement can be established indirectly if the moved phrase agrees with the target feature of the second specifier which attracts it.

¹⁵ Boeckx's (2003) proposal also does not rule out the possibility that agreement between a constituent extracted from a "big" DP and the attractor is required for independent, language-specific reasons. This explains why some languages, such as Scottish Gaelic, Greek or Romanian, do not allow extraction out of strong islands even in the context of resumption.

agrees with an embedded phrase, it values all intervening complementisers, thereby triggering the occurrence of *aL* in the intermediate C-positions.) In (30), the copy of the relative operator is inside a complex NP-island. According to Boeckx's theory, (30) is ungrammatical because the agreement relation between the matrix C and the operator, which is required to license movement and the multiple occurrences of the complementiser *aL* in (30), cannot be established. The interesting example is (31). (31) is similar to (30) in that a relative operator has been extracted out of an island. In contrast to (30), however, a resumptive pronoun has been used in (31), and the sentence is grammatical. Importantly, the use of the resumptive pronoun triggers the occurrence of a different complementiser in the matrix clause of (31) (*arL* instead of *aL*), which according to Boeckx shows that no agreement relation exists between matrix C and the base position of the operator. The possibility of extraction out of islands under resumption hence correlates with the absence of agreement.

Let me now return to Zulu. If Boeckx's proposal is adopted, then the island insensitivity of clitic left dislocation no longer poses a problem for the movement analysis. All one has to assume is that the head which attracts the topic phrase in Zulu does not agree with the extracted topic. I have suggested above that the landing site of clitic left dislocation in Zulu is the specifier of a topic phrase TopP. With respect to the data in (24)-(28), we can now stipulate that, although the head of TopP bears a topic feature which attracts the respective feature of a topic phrase inside the associated sentence, it cannot agree with it, due to the intervention of an island. However, since the topic phrase is the complement of a resumptive pronoun inside a "big" DP, it has not entered any other checking relation and can therefore be extracted out of the island, despite the absence of agreement. It is sufficient that the interpretable topic feature of the dislocate matches the uninterpretable attracting feature of the head of TopP. Given the absence of topic-related complementisers or other elements which could be interpreted as agreeing topic heads, the empirical properties of Zulu are consistent with this account. Moreover, it is worth mentioning in this respect that the Zulu complementiser *ukuthi* is derived from the infinitive of the verb *-thi*, 'say'. According to Boeckx (2003: 88), verbal complementisers do not have ϕ -features and generally fail to trigger agreement. If the absence of agreement features is assumed to be a general property of heads in the C-system in Zulu, then the obligatory use of resumptive pronouns in all topic left dislocation constructions in Zulu follows directly.

Before I conclude this section, I have to mention one caveat, however. A potential problem with a Boeckx-style analysis concerns the relation between the left-dislocated topic and the resumptive clitic. As is demonstrated by all the Zulu examples provided in this paper, the topic and the resumptive clitic agree with respect to their noun class (gender) features. If the movement analysis of clitic left dislocation is correct, then this agreement is established locally, inside the "big" DP. However, if agreement between the topic and the clitic is the result of a DP-internal checking relation, then further movement of the topic out of an island should be blocked, since the dislocate would now be required to agree with the attracting Top-head, according to Boeckx's theory. In fact, much of the discussion in Boeckx (2003, chapter 2) suggests that his theory of resumption not only predicts the absence of agreement between an attracting head and the extracted element (which Boeckx calls "distant non-agreement"), but also between the extracted phrase and the resumptive pronoun ("local non-agreement"). Boeckx (2003: 51) notes that "various instances" of local non-agreement are indeed attested in constructions involving resumptive clitics, but it is not clear whether examples of local agreement between an extracted phrase and a resumptive clitic can also be accommodated by his analysis, particularly when this local agreement is observed in islands contexts.

However, it should be noted that Zulu is clearly not the only language in which resumptive pronouns agree with their corresponding associated phrases. Boeckx (2003: 47) briefly addresses the absence of local non-agreement in Irish examples with resumptive pronouns, and he mentions in passing that this agreement might be due to the "intrinsic ϕ -features" of

pronouns. If I understand this remark correctly, then Boeckx seems to imply that agreement between a resumptive pronoun and a dislocate may be caused by independent properties of resumptive pronouns and is not necessarily determined by the same mechanisms that establish agreement between an attracted phrase and an attracting head. This assumption may not be too far-fetched; after all, pronouns even agree with the grammatical features of their antecedents if an anaphoric relation is established across a sentence boundary (compare *John was tired. He/*She/*They went to sleep*). The fact that a resumptive clitic in Zulu clitic left dislocation agrees with the dislocate is therefore compatible with Boeckx's theory if it is assumed that this agreement is not necessarily determined by grammatical processes that require a local checking relation.

In conclusion, the theory of resumption introduced by Boeckx (2003) offers a way to explain the island insensitivity of Zulu clitic left dislocation without contradicting the view that this operation is derived by movement of the topic. Zulu clitic left dislocation involves extraction of a phrase which is merged as the complement of a resumptive clitic inside a "big" DP. Since extraction under resumption does not require agreement, according to Boeckx's theory, clitic left dislocation is possible in Zulu even if the dislocated topic originates inside an island.

7. Conclusion

The question of whether clitic left dislocation in Bantu is the result of a movement operation or whether the topic phrase is base-generated in the left periphery has not received much attention in the literature. This may be because existing studies often focus on the discourse function of the dislocate or the status of the object marker rather than on the syntactic relation between the dislocate and the resumptive clitic. Nevertheless, the dominant view seems to be that left-dislocated phrases in Bantu are "hanging" topics, which are generated "extra-sententially". One of my aims in this paper was to challenge this view. There are empirical reasons to believe that left-dislocated topics in Zulu have undergone movement from a position inside the associated clause. At the same time, potential arguments against a movement analysis turn out to be unpersuasive and are explained by a theory such as Boeckx's (2003), which provides an articulated approach to resumption as stranding. Although I do not claim that my conclusions drawn from the discussion of Zulu can straightforwardly be extended to other Bantu languages, I hope that my analysis has revealed interesting facts about the syntax of clitic left dislocation that may stimulate further research.

8. References

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