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# The Syntax of Agreement in Bantu Relatives

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## 1 The Typology of Bantu Relatives

Many linguists have found Bantu relative clauses interesting for two reasons. One is a kind of V2 effect found in relative clauses, but not in main clauses, which in many languages requires inversion of the verb and the subject when a nonsubject argument is relativized (see Demuth and Harford 1999 for an overview and useful discussion). Some aspects of inversion will be dealt with in Section 3 below. The second point of interest, the main topic of this paper, is variation in agreement. Restricting attention to non-subject relatives that involve a complementizer, one finds a three-way typology when examining whether the complementizer and/or verb display agreement:<sup>1</sup>

- (1)    Type 1: Agreement with the subject and relativized NP  
         Type 2: Agreement with subject only  
         Type 3: Agreement with relativized NP only.

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<sup>1</sup> Assumptions about what constitutes a relative complementizer (as opposed to a relative pronoun) is not uncontroversial. See Zeller (2004) and Demuth and Harford (1999) for opposing viewpoints. In this paper, I consider what I believe are the least controversial cases possible: relative markers that cannot stand alone as pronouns and are phonologically affixal in nature.

In this section, I offer examples for each of these three types, demonstrating with object relative clauses. Type 1 relatives are exemplified by Shona relatives as well as the Zulu so-called “strategy two” relatives. In (2-3) an affixal complementizer displays agreement with the relativized NP while the verb displays agreement with the subject.<sup>2</sup>

- (2) Mbatya **dza-v-aka-son-era** vakadzi mwenga *Shona*  
 10clothes 10REL-3PL-PST-sow-APP women bride  
 ‘the clothes which the women sowed for the bride’  
 (Demuth and Harford 1999)

- (3) Inja **e-mfana wa-yi-thenga** *Zulu*  
 9Dog 9REL-boy 3SG-9OM-buy  
 ‘The dog which the boy bought’  
 (Poulos 1982)

In Type 2 relatives, while a complementizer is present, it does not display agreement with the relativized NP. However, the verb does agree with the subject. Zulu “strategy 1” relatives as well as Swati relatives display these characteristics. In (4), the marker /a/ does not display agreement with the relativized NP. Similarly with /la/ in (5).<sup>3</sup>

- (4) incwadi isitshudeni a-**isi-yi-funda-yo** *Zulu*  
 9letter 7student REL-7AGR-9OM-read-RS  
 ‘the letter that the student is reading’
- (5) umfati tintfombi la-**ti-m-elekelela-ko** *Swati*  
 1woman 10girl REL-10AGR-9OM-help-RS  
 ‘the woman whom the girls help’  
 (Zeller 2004)

<sup>2</sup> In all examples numbers are used to indicate the noun class of nominals as well as coindexation with agreeing morphemes. Other abbreviations: REL = relative complementizer; AGR = subject agreement; OM = object marker; RS = relative suffix; IMP = imperfect aspect; PERF = perfect aspect; PST = past tense marker; NEG = negative marker; APP = applicative morpheme.

<sup>3</sup> The relative marker /a/ plus the subject agreement affix in Type 2 relatives is usually referred to as by the term ‘relative concord’ in the literature. Often the /a/+AGR composition of this marker is obscured by phonological processes like vowel harmony and coalescence. For example, in (4) the relative concord is spelled out as /esi/ while in (5) it is /leti/ (see Mischke 1998 for the full details on such phonological processes in Zulu). Throughout this paper I ignore these phonological transformations for transparency.

Finally, in Type 3 relatives there is no distinct segmental relative complementizer. Rather, relativization is marked by a high lexical tone on the verb. Moreover, it is the relativized NP that triggers morphological subject-verb agreement on the verb. The verb shows no agreement with the subject, which must be overt and postverbal. Many Central Sub-Saharan African languages including Dzamba and Lingala display this type of relativization.

- (6) imundondo **mú** - kpa - aki omoto *Dzamba*  
 5jug 5AGR.REL-took-IMP person  
 ‘the jug which the person took’ (Bokamba 1976)

- (7) mukanda **mú** – tind - aki Poso *Lingala*  
 5letter 5AGR-send-PST Poso  
 ‘the letter that Poso sent’

In the next section I attempt to explain this variation in a principled manner.

## 2 Explaining the Variation: Principles and Parameters

It is standard to take features that are responsible for relativization and wh-movement generally to reside in C while features associated with inflection reside in T. We might therefore simply take the variation above to reflect the presence or lack of phi-features in C and/or T in the three types of relative strategies. However, the data suggests a more interesting conclusion. Consider the variation observed within Zulu, between the so-called “strategy one” (S1) and “strategy two” (S2) relatives. While S2 relatives (in (8) below) are Type 1, S2 relatives (in (9) below) are Type 2. In at least some dialects, these two strategies are both freely available:<sup>4</sup>

- (8) Inja e-mfana wa-yi-thenga in-hle. *Zulu S2*  
 9dog 9REL-boy 3SG-9OM-buy 9AGR-good  
 ‘The dog which the boy bought is good.’

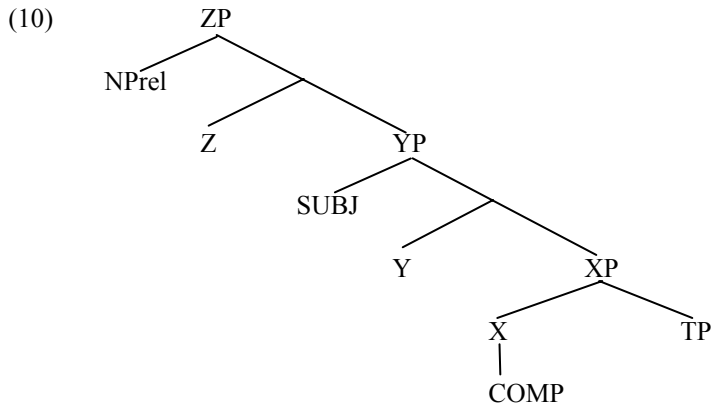
- (9) Inja umfana o-wa-yi-thenga-yo in-hle *Zulu S1*  
 9dog boy REL-3SG-9OM-buy-RS 9AGR-good  
 ‘The dog which the boy bought is good.’

(Poulos 1982)

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<sup>4</sup> Two speakers I have consulted that grew up in metropolitan areas find S2 relatives extremely marginal or ungrammatical. However, two other speakers I consulted who grew up in rural Kwa-Zulu Natal seem to place no restrictions on the use of either strategy.

Not only do these two relatives differ in agreement facts, but also in the position of the relative complementizer /a/. In (8) the complementizer /a/ precedes an overt subject while in (9) it follows the subject, prefixing to the verb. Given (9), if we maintain that relative complementizers like /a/ reside in C, it is necessary to assume a CP domain with more than one projection. This is because both the overt subject and the relativized NP precede the relative complementizer. We therefore require at least three projections in the CP domain: one for the complementizer to head, and two whose specifiers the subject and relative NP can occupy. The required structure appears in (10):

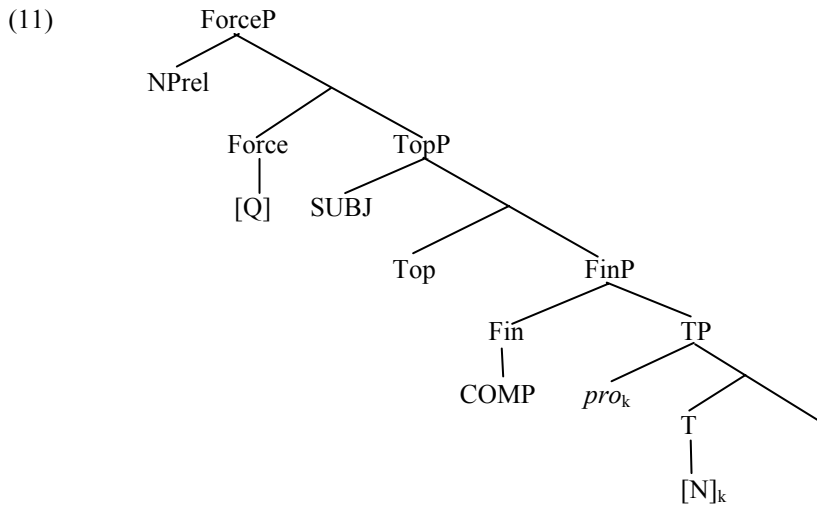


The idea that overt subjects in some Bantu languages are topics residing in the CP domain (rather than structural subjects residing in the TP domain) has been proposed by Letsholo (2002). Under this view, the true structural subject of these languages is not the overt NP itself, but rather a null pronominal *pro* coreferential with the overt subject.

As for the identity of the three projections in (10), those proposed by Rizzi (1997) on the basis of Indo-European languages seem to fit the bill nicely. Rizzi argues that the CP domain should be split up into four possible projections. The topmost projection, ForceP, is responsible for interactions between the clause and the external context, including discourse contexts. It is the locus for clause-typing and clausal operators, including relative operators. The lowest projection, FinP, is responsible for interactions between the CP domain and the inflectional TP domain. Between these two obligatory projections, there are two other projection types which may be present if they are required. One is FocusP (FocP), which serves as a host for focused elements, including wh-question words. FocP is irrelevant for the

present discussion. The other projection is TopicP (TopP), whose specifier hosts left-peripheral topics, including left-dislocated topics.

Rizzi's characterization of the CP domain projections fits nicely with what is required to describe Zulu S1 relatives. The relativized NP resides in SpecForceP while the overt subject resides in SpecTopP. The complementizer /a/ (COMP) I will take to reside in the head of FinP. Placing the set of phi-features associated with subject-verb agreement in T, the structure we arrive at appears in (11)



The structure in (11) characterizes the facts of the Zulu S1 relatives in (9). It also provides a partial solution to the variation we have seen between Zulu S1 and S2 relatives. Recall that unlike in S1 relatives where the relative complementizer appears as a prefix on the verb and therefore after an overt subject, the same marker appears before the overt subject in S2 relatives. This word order difference is easily characterized given the architecture in (11) by assuming that the relative complementizer in Zulu may appear either as the head of FinP or the head of ForceP. In other words, in S1 relatives, /a/ heads FinP while in S2 relatives it heads ForceP.

I would like to note that this possibility of variation in the locus of the relative marker is not antithetical to Rizzi's architectural approach. While it is true that Rizzi associates certain projections with certain interpretation effects, this only affects the interpretation of certain features on the heads of those projections and elements in their specifiers. It does not say anything about the pronounced position of phonological material in the heads of those projections. Consider the now-standard assumption that a parametric

difference (call it the Verb Position Parameter) underlies which syntactic head a verb raises to in natural language. At least since Pollock (1989) it has been argued that in some languages verbs raise to T or AgrS while in others verbs remain in V. Yet there is no interpretation effect associated with this difference. Indeed, the only clear effect it has seems to be pronunciation – a fact that has led some researchers to see head movement as a purely phonological effect (see Boeckx and Stjepanovich 2001, e.g.).

Similar to the Verb Position Parameter, I propose the COMP Position Parameter, the idea that complementizers may reside Force or in Fin.

- (12) COMP Position Parameter: languages differ in whether complementizers reside in Force or Fin.

The parameter in (12) allows for the word order variation in Zulu S1 and S2 relatives. However, it does not account for the variation in agreement facts. Recall that both relatives display subject-verb agreement; however in S1 relatives the relative complementizer /a/ does not agree with the relativized NP while in S2 relatives it does. A rather obvious answer is available: the relative complementizer /a/ carries phi-features when it is realized in Force, but not when it is realized in Fin. But this stipulation alone leaves crucial questions unanswered. Why should the relative strategies differ in this way? Why should the single complementizer /a/ carry agreement in one case, but not in the other?

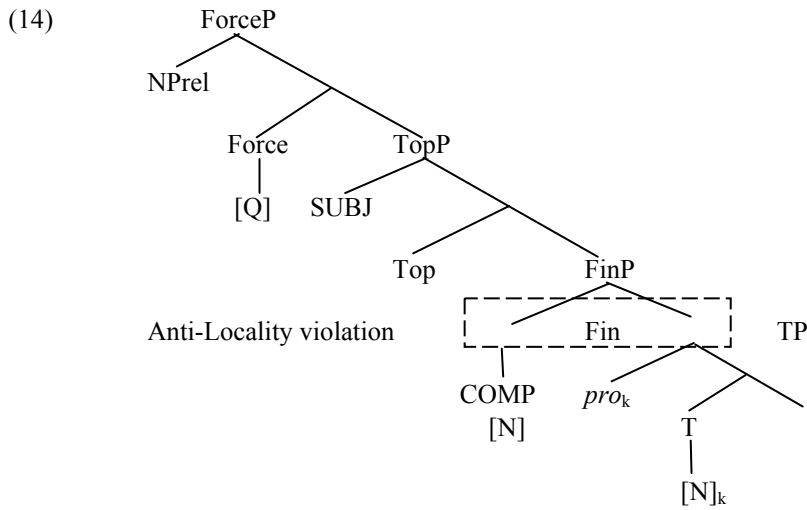
A more explanatory conclusion draws a correlation between the presence of the /a/ marker in Fin and its lack of phi-features. It is this approach that I would like to develop, proposing that a kind of anti-locality effect obtains when two sets of phi-features are “too close” to one another in the syntactic structure. This general concept is explored extensively in Grohmann (2000). Grohmann observes that clause structure has a tri-partite nature, consisting of what he dubs “prolific domains.” Generally speaking, these domains line up with syntactic projections, namely VP (the theta domain), TP (the N-domain) and CP (the T-domain).

Grohmann argues that each domain constitutes a context that is “too local” for movement to occur in. This anti-locality, he argues, prevents movement from, say, SpecTP to SpecAgrS (in the N-domain) or from SpecFinP to SpecForceP (the T-domain). To this general view of things, I would like to add two additional stipulations. The first can be seen as an extension of Grohmann’s concept of anti-locality from the realm of movement phenomena to the presence or realization of phi-features. This is given in (13a). The second is adapted from Rizzi’s (1997) claim that FinP participates both in processes related to the CP domain (hosting A-bar elements,

e.g.) as well as in processes related to the INFL domain (case checking of subjects, e.g.). This is given in (13b).

- (13) a. A prolific domain may contain only one set of N-features.
- b. FinP is a part of both the N-domain and the T-domain

We have thus arrived at a very general set of principles that govern the presence of agreement in the grammar. Combined with the morphological COMP Parameter, these assumptions provide a full characterization of the variation seen between Zulu S1 and S2 relative clauses. Given (13), the fact that the relative complementizer does not display agreement when it occurs in Fin follows. If the complementizer were inserted with its phi-features intact, this would constitute an anti-locality violation, as seen in (14). The grammar's response is to eliminate one set of phi-features, in particular those associated with Fin. Given a derivational system, the latter choice makes sense since T's set of phi-features are introduced first and presumably valued before Fin and its set of phi-features are introduced into the grammar.



From an explanatory perspective, the present account is ideal since it accounts for both the word order and agreement differences between Zulu S1 and S2 relatives with a single morphological parameter, namely that in (12). It must therefore be preferred to an alternative account in which the word order and agreement difference follow from distinct assumptions. Revising

our typology of Bantu relative types to reflect the COMP Position Parameter, we arrive at (15):

- (15) Type 1: COMP in Force  
Type 2: COMP in Fin

Note that this morphological variation is limited in the variation it can explain. In particular, it says nothing about the third type of relative we seen, namely Type 3 relatives which display no agreement with a subject, but only with a relativized NP. I repeat an example from Dzamba below:

- (16) imundondo **mú** - kpa - aki omoto *Dzamba*  
5jug 5AGR.REL-took-IMP 1person  
'the jug which the person took' (Bokamba 1976)

Type 3 relatives cannot be explained by appeal to the COMP Position Parameter. However a similar parameter is possible. Considering that Fin is ambiguously a member of both the N-domain and the T-domain, we can imagine that just as clauses differ with regard to the locus of the features associated with a complementizer (in Force or in Fin), they may also differ with regard to the locus of features associated with inflection. I propose the follow morphological parameter:

- (17) INFL Position Parameter: INFL features may reside in T or Fin.

I propose that languages with Type 3 relatives have their INFL features in Fin rather than in T. This morphological difference has two syntactic effects. First, given that Fin is a part of both the N- and T-domains, it follows from the anti-locality assumption in (13a) that no other set of phi-features can be present in either of those two domains. We therefore expect these relatives to agree with one element in the clause, as is the case. This does not immediately answer the question, however, as to why that element must be the relativized NP and cannot be the subject.

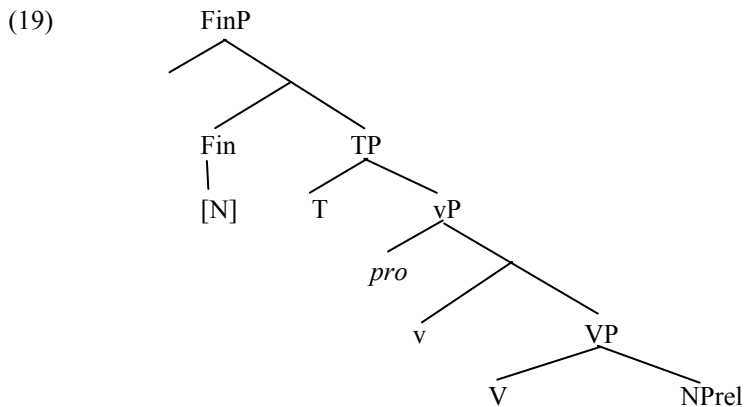
The second syntactic effect of having INFL features in Fin is more complex. In Henderson (2006) I argue extensively that languages allowing Type 3 relatives have a single specifier position in the CP domain to which subjects, relativized NPs, and topics must move. This assumption derives the fact that all languages which allow Type 3 relatives also allow topicalization constructions in which a topicalized NPs triggers morphological subject-verb agreement and the subject must be postverbal:



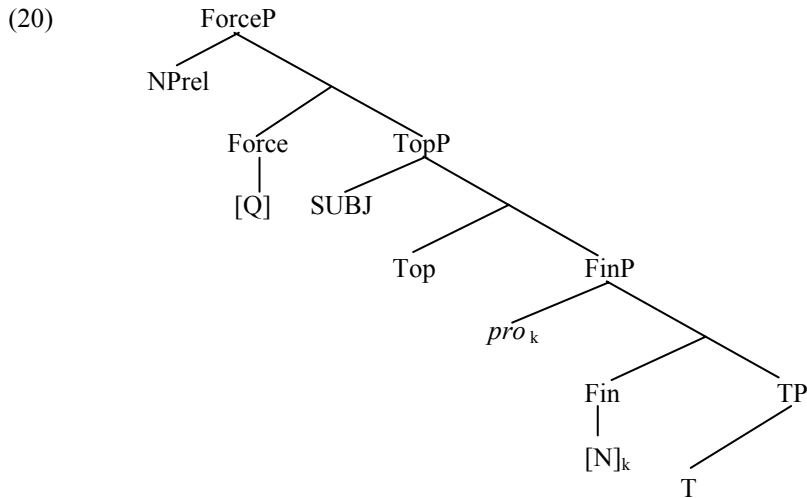
- (18) Imukanda **mu**-tom-aki omwana. Dzamba  
 5letter 5AGR-send-PERF 1child  
 “The letter, the child sent it.” (Bokamba 1976)

Below, I argue that the option of having INFL features in Fin derives the simplex nature of the CP domain in these languages.

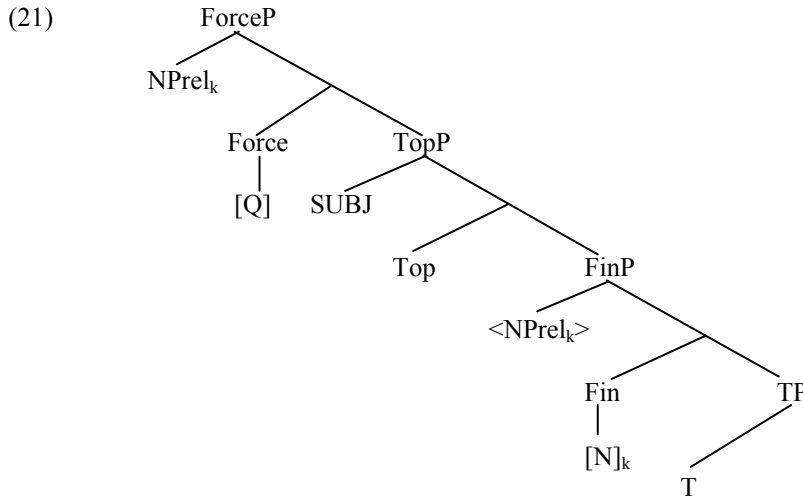
At first glance, the argument languages like Dzamba have a simplex CP layer with only one specifier position would seem to be inconsistent with the view taken here that a complex CP domain like that argued for in Rizzi (1997) is active in Bantu. However, consider the derivation of a Type 3 relative clause. At the point of the derivation in which Fin and its phi-features are introduced, either the subject (here assumed to be *pro*), or the object (represented as NPrel below) may enter a relation with the phi-features and undergo movement to SpecFinP. This situation is represented in (19):



First, let's consider the possibility that the subject moves to SpecFinP. After this movement takes place, the overt subject will be merged in the specifier of a topic position and the relativized NP will undergo movement to SpecForceP. The resulting derivation is represented in (20):



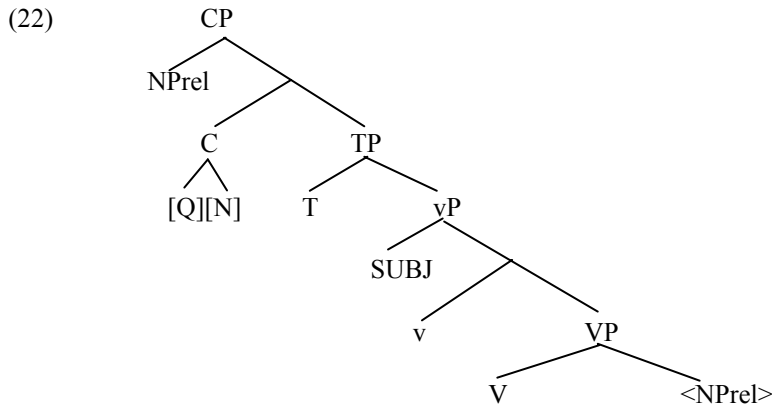
There is a serious problem with the derivation in (20), however. It is standardly assumed that movement must be local. Specifically, when an element moves from one position to another, it may not cross potential landing sites on its way. In (20), the relativized NP undergoing A-bar movement crosses at least one such position, SpecFinP, on its way to SpecForceP. The derivation in (20) is thus ruled out by the general principle of minimality, or Shortest Move. The A-bar movement of NPrel in (20) is not local enough. Now let us consider the other option: namely that the phi-features of Fin in (19) enter a relationship with NPrel and this element moves to SpecFinP. After this movement takes place, the overt subject will be merged in SpecTop and then NPrel will move to SpecForceP. The resulting derivation is represented in (21) where the trace of NPrel is represented as a copy in <>.



The derivation in (21) derives the fact that in Type 3 relatives agreement is with the relativized NP; however, this derivation too suffers from a serious difficulty. Note that in (21) *NPrel* undergoes movement from *SpecFinP* to *SpecForceP*. Ignoring the fact that *SpecTopP* may indeed count as a potential landing spot for purposes of Shortest Move, movement from *SpecFinP* to *SpecForceP* is a clear violation of Grohmann's anti-locality condition on movement since it occurs within the same prolific domain, namely the *T*-domain. The derivation in (21) is ruled out by this general principle of anti-locality. The A-bar movement of *NPrel* in (21) is too local.

A solution to the problem at hand presents itself once we consider Rizzi's (1997) suggestion that when no *TopP* or *FocP* projections are required between *ForceP* and *FinP*, the latter two projections may collapse into a simplex *CP* projection. In order for that to occur, of course, the overt subject cannot be merged as a left-peripheral topic, but must be merged in its argument position in *SpecvP*. In that case, *ForceP* and *FinP* can collapse into *CP*, a single projection whose head will host both the *[Q]* feature associated with relativization and the *[N]* features associated with subject-verb agreement. This situation is represented in (22). In (22) *NPrel* has undergone A-bar movement to *SpecCP* where it triggers agreement on the verb. (22) derives the agreement facts of Type 3 relatives as well as the fact that Type 3 relatives require inversion of the verb and subject. In (22) the sub-

ject must remain in-situ since SpecCP, the only site available for movement, is occupied by NPrel.<sup>5</sup>



The derivation in (22) is also easily adapted to represent SVO clauses as well as topicalization OVS clauses in the languages that allow Type 3 relatives. In both cases only one element (the subject in the former case, an object in the latter) will undergo movement from its base position to SpecCP, leaving other elements in situ.

To summarize, assuming that FinP is always an A-bar position, general principles on the locality and anti-locality of movement forces a language to have a simplex CP layer if its INFL features happen to reside in Fin rather than in T. This derives both the agreement and inversion facts of Type 3 relatives. Revising our typology of Bantu relatives once again, we arrive at (23):

- (23) Type 1: COMP in Force; INFL features in T  
 Type 2: COMP in Fin; INFL features in T  
 Type 3: COMP and INFL features in C.

To summarize, the full range of agreement variation in Bantu object relatives falls out from two simple morphological parameters and general conditions on (anti-)locality. In Type 1 relatives, the two sets of phi-features involved – those associated with COMP and those associated with INFL –

<sup>5</sup> Another locality issue arises if we assume that phi-features must enter a checking relationship with the nearest c-commanded element with an interpretable set of phi-features, here the subject. See Henderson (2006) for a solution to this problem.

are maximally apart from one another in the clausal architecture, residing in distinct prolific domains. In Type 2 relatives, on the other hand, the COMP features reside in the same prolific domain (the N-domain) as the INFL features since the former reside in Fin. This situation requires COMP to lack a set of phi-features given the anti-locality condition on such features. In Type 3 relatives, the same situation occurs, but in the T-domain. Since COMP and INFL reside in the same domain, only one may have phi-features. Furthermore, since the T-domain has an A-bar character, general conditions on the (anti-)locality of movement rule out a complex CP domain in this situation, resulting in a single CP layer and an obligatorily present in-situ subject.

While deriving the variation in agreement facts in Bantu object relatives, the present work also illustrates an important general characteristic of a particular view of the grammar. It may be that basic morphological variation has no principled explanation. Though some have attempted to explain why in some languages verbs raise to T while in others they remain in V, it is difficult to say how successful these attempts have been.<sup>6</sup> Similarly, there seems to be no reason other than historical accident why one language would have a complementizer in Force while another would have it in Fin. Yet as I hope to have illustrated here, this kind of essentially random variation may interact with universal syntactic principles such as (anti-)locality and agreement, giving rise to syntactic reflexes that magnify and extend the effect of the minimal underlying variation. Parameters, in this view, are the elements of the syntactic mechanics that cannot really be explained except possibly through the eyes of logical necessity (a verb or a complementizer must be spelled out *somewhere*), yet defining their limits is essential given that the system may react strongly to small morphological variations.

### 3 Two Kinds of Inversion

In this section, I contrast the inversion seen in Type 3 relatives with the inversion sometimes seen in Type 1 relatives, concluding that the two have different sources in the grammar. Recall that in Type 3 relatives the subject is in-situ since it cannot raise to SpecCP. Therefore, it must be overt and does not trigger agreement on the verb:

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<sup>6</sup> I am thinking in particular of the so-called Rich Agreement Hypothesis which states that the richness of morphological agreement on a verb derives the (im)possibility of verb movement. See Bobaljik (2001) for discussion and arguments that rich agreement reflects syntactic structure and not vice versa.

- (24) Ibitabo **bi** – a – someye abana *Kirundi*  
 8books 8AGR-PST-read:PERF 2children  
 ‘the books that the children read’

However, we have seen that some Type 1 relative clauses, such as those in Shona, also display verb-subject order in object relatives.

- (25) Mbatya **dza-v**-aka-son-era vakadzi mwenga *Shona*  
 10clothes 10REL-3PL-PST-sow-APP women bride  
 ‘the clothes which the women sowed for the bride’

While inversion in (24) is forced by the syntactic derivation of Type 3 relatives, this is not so in Type 1 relatives like in Shona. In (25) the relative complementizer and its phi-features must be in Force while INFL phi-features are in T as argued above. This seemed obvious in Type 1 relatives in Zulu where the relative complementizer precedes and cliticizes to an overt subject:

- (26) Inja e-mfana wa-yi-thenga in-hle. *Zulu S2*  
 9dog 9REL-boy 3SG-9OM-buy 9AGR-good  
 ‘The dog which the boy bought is good.’

Why, then, do Type 1 relatives in Shona require inversion while those in Zulu do not? I propose that the answer has to do with morpho-phonological considerations. It is simply a fact about Zulu that relative complementizers can affix either to verbs (if no overt subject is present) or to subjects. The relative complementizer in Shona, on the other hand, does not have this property; it has a morphological requirement that it must affix to the verb. Since the complementizer is in Force in the syntax and the verb is in T, this affixation takes place at the postsyntactic level by PF Merger (Bobaljik 1995). In this view, linguistic elements that are independent syntactically may merge postsyntactically, forming cohesive phonological words. The one requirement for this process to take place is string-adjacency of the elements’ phonological material.

Consider now the derivation of a Type 1 relative in Shona. In (27) the relative complementizer, agreeing with the relativized NP, is in Force while the verb is in T. The overt subject, however, intervenes between the two of them in its location in SpecTopP. There is therefore no way that COMP and the verb can undergo PF Merger and satisfy the morphological requirement that COMP must be a verbal prefix.

- (27) [<sub>ForceP</sub> Mbatya dza- [<sub>TopP</sub> vakadzi [<sub>FinP</sub> [<sub>TP</sub> *pro* v-aka-son-era...]]]]  
 10clothes 10REL women *pro* 3PL-PST-sow-APP  
 ‘the clothes which the women sowed’

Fortunately, there is a way out. Both Bobaljik (1995) and Boskovic (2001) argue that, under certain circumstances elements that have raised in the syntax can be pronounced in a lower position from which they have moved. This is clearly a logical possibility allowed by the copy theory of movement – the idea that moved elements leave full copies of themselves in their base position when they undergo movement, rather than a trace. However, this ‘pronounce lower copy’ is clearly a restricted phenomenon since in general elements are pronounced in their moved positions. Interestingly, both authors argue that pronounce lower copy can occur only when the requirements of the morphology/phonology demand it. Returning to (27) we have just such a context. Shona requires that relative markers be verbal prefixes, yet the presence of the subject prevents this from occurring under PF Merger. The solution is that the subject must be pronounced lower in the clause, where it cannot get in the way. I propose that this is the case and that subjects in Shona relatives are pronounced in their base-positions in SpecvP though in syntax (and thus at LF), they reside in the higher position of SpecTP.<sup>7</sup>

If inversion in Type 1 relatives is an instance of pronounce lower copy whereas inversion in Type 3 relatives results from failure to raise the subject from its base position, then the subject will have different LF locations in these two relative types. We therefore expect these two kinds of relatives to display distinct interpretative effects with regard to the subject. Using Type 1 relatives with inversion from Swahili and Type 3 relatives from Kirundi, I present two such effects below, substantiating the claims above.

### 3.1 Old vs New Information

Though a unified formalization has never been proposed, it is a well-documented fact that postverbal or VP-internal material in Bantu languages receives a new information or focus interpretation (Givón 1972, Bokamba 1976, 1979, Bresnan & Mchombo 1987, Machobane 1987; Demuth & Mmusi 1997). On the other hand, preverbal elements such as subjects tend to be interpreted as old information and function as topics.

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<sup>7</sup> The assumption that overt subjects in SpecTopP are merged there directly and not moved to that position necessitates that in cases of pronounce lower copy the subject be first-merged in SpecvP as the true argument of the clause (rather than *pro*) and then raise to SpecTP.

If the analysis above is on the right track, we should see this difference in the way that subjects are interpreted in pre- and postverbal positions in Kirundi. This prediction is born out. In addition to the Type 3 OVS relatives described above, Kirundi also allows SVO Type 2 relatives. In the latter, the subject may function as old information as seen in (28a). However, in OVS relatives the subject is obligatorily interpreted as new information or as a focused element as indicated in the gloss in (28b). (28b) would be an appropriate response an echo question such as “the books that who read?” or to correct a statement such as “the books that the parents read.”

- (28) a. Ibitabo abana **ba** – a – someye *Kirundi*  
 8books 2children 3PL-PST-read:PERF  
 ‘the books that the children read’
- b. Ibitabo **bi** – a – someye abana *Kirundi*  
 8books 8AGR-PST-read:PERF 2children  
 ‘the books that the children read’

In variation between Type 1 relatives with inversion and those without, on the other hand, we do not expect to see this difference between pre- and postverbal subjects since we have claimed that the subject in Type 1 relatives occupies the same LF position in inverted and uninverted structures. This prediction is also born out. Swahili also allows Type 1 relatives with and without inversion. The subject in both the SVO and OVS relatives below has the same interpretation. In fact, the two structures have complete semantic equivalence:

- (29) a. kitabu ambacho mwanfunzi a-li-soma *Swahili*  
 7book 7REL 1student 3SG-PST-read  
 ‘the book that the student read’
- b. kitabu **a** – li – cho - soma mwanafunzi *Swahili*  
 7book 3SG-PST-7REL-read 1student  
 ‘the book that the student read’

The interpretation facts thus bear out the analysis from Sections 2 and 3 that though both Kirundi and Swahili display inversion, in the latter it is merely a phonological effect which does not affect semantic interpretation.



### 3.2 Scope Interpretation

I have claimed that inverted subjects in Swahili raise to SpecTP while in Kirundi they remain within the vP. If this is the case, we expect to see a difference in scope interpretation in case these subjects contain quantifiers. In particular, subjects in Kirundi that remain within the vP should have narrow scope under negation while those in Swahili, which have raised to SpecTP, should have wide scope over negation.<sup>8</sup> This prediction is born out. The subject in (30a) cannot receive wide scope while the subject in (30b) cannot receive narrow scope.

- (30) a. igitabo nti-gi-a-somye umuntu numwe *Kirundi*  
 7book NEG-7AGR-PST-read 1person 1one  
 ‘the book that not one person read’  
 ‘\*the book that one person didn’t read’
- b. kitabu a-si-cho-soma mtu mmoja *Swahili*  
 7book 3SG-NEG-7REL-read 1person 1one  
 ‘the book that one person didn’t read’  
 ‘\*the book that not one person read’

These facts substantiate the claim that subjects in Kirundi and Swahili occupy different LF positions.

## 4 Conclusion

In this paper, I have observed a three-way distinction amongst Bantu object relative clauses with regard to agreement: some relatives display agreement with the subject and the relative NP, some only with the former, and some only with the former. I have argued that this variation arises due to the interaction of general structural and derivation properties of the grammar such as prolific domains and (anti-)locality with a very small amount of morphological variation, namely the locus of COMP and INFL phi-features in the clausal architecture. I have argued that the specifications of the locus of these features for any given language may be essentially random, subject only to historical accident and the logical possibilities afforded by more general principles of the grammar. Finally, I have argued that inversion in Bantu relatives is not a unified phenomenon, (a conclusion also reached in Demuth and Harford (1999)), but may result either from failing to raise a subject as in Type 3 relatives, or as an instance of pronounce-lower copy (as in some Type 1 relatives).

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<sup>8</sup> Thanks to Kyle Johnson for pointing me toward this argument.

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