

The subject marker in Bantu as an antifocus marker*

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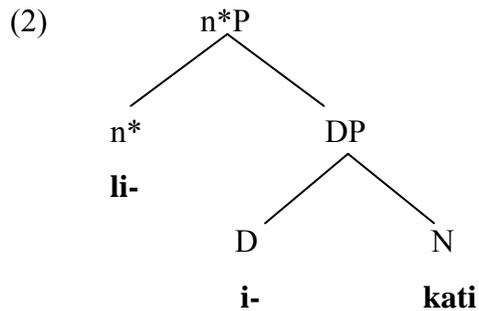
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1. Introduction

In most Bantu languages, subject-verb agreement is expressed by prefixing a subject marker (SM) to the verb stem; the SM agrees with the noun class features of the preverbal subject. This is illustrated by the Zulu (Z.) example in (1):¹

- (1) *Ikati li-ya-gul-a* (Z.)
cat5 SM5-DIS-be.sick-FV
"The cat is sick"

In this paper I suggest that a preverbal subject DP and the corresponding SM start out as one constituent in the derivation. I argue that the class 5 subject noun phrase *ikati* ("cat") and the class 5 SM *li-*, which is prefixed to the verb in (1), are initially part of the same phrase whose internal structure is depicted in (2):



In (2), the subject DP is the complement of the SM, which I analyse as a functional head with nominal properties. Following a proposal by Chomsky (2006), I label this head n^* . I assume that in a sentence such as (1), the n^* -head has moved out of the subject n^*P and has incorporated into the functional head which hosts the verb. Therefore, the SM is attached to the verb stem and the verb shows overt agreement with the subject DP.

The primary objective of this study is to show that the proposal illustrated in (2) offers a way to explain the lack of subject-verb agreement in subject-verb inversion constructions such as that in (3b).

- (3) a. Abafana ba-ya-cul-a. (Z.)
 boy2 SM2-DIS-sing-FV
 "The boys are singing."
 (Buell 2006: 19)
- b. Ku-cul-a abafana.
 EXPL17-sing-FV boy2
 "The boys are singing."
 (Buell 2006: 23)

In (3a), the subject *abafana* ("boys") is in [Spec, T] and agrees with the finite verb (the SM *ba-* is attached to the verb). In contrast, in the inversion construction in (3b), the subject is realised vP-internally and hence follows the verb. Importantly, the SM *ba-* does not appear in (3b). Instead, the verb is prefixed with an expletive marker of locative class 17. I demonstrate that the correlation between S-V word order and subject agreement observed in Zulu and many other Bantu languages can be explained on the basis of the structural representation in (2). I argue that an n^* -head which is realised by the SM marks the subject n^*P as [- Focus].

Furthermore, I show that subject n*Ps which are marked as [– Focus] must move out of the vP for syntactic reasons. It follows that a subject n*P such as (2), whose head is the SM and which therefore shows agreement with the verb, has to move to [Spec, T]. In contrast, if no SM is present, the subject remains in the vP and appears postverbally.

The paper is organised as follows. In section 2, I discuss the relation between subject-verb inversion and subject agreement in more detail. Section 3 motivates and develops the idea that the SM and the subject DP form one constituent. In section 4, I provide evidence for my claim that the SM marks the subject as [– Focus], and I develop a syntactic analysis of focus agreement which ultimately explains why a subject with this feature specification must move to [Spec, T]. Section 5 concludes the paper with a few comments about antifocus marking in non-Bantu languages.

2. Subject agreement and word order in Bantu

As was shown in the introduction, Zulu, like many other Bantu languages, allows for subject-verb inversion. (4) is another example from Zulu; (5) provides an example from Kinyarwanda (K.).

- (4) a. Ingane i-hlek-il-e. (Z.)
child9 SM9-laugh-DIS-PST
"The child laughed."
b. Ku-hlek-e ingane.
EXPL17-laugh-PST child9
"The child laughed."
- (5) a. Umwáana a-ra-lir-a. (K.)
child1 SM1-PRES-cry-ASP
"The child is crying."

(Kimenyi 1980: 51)

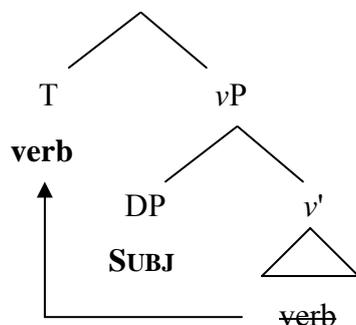
- b. Ha-ra-som-a umwáana.
 EXPL16-read-ASP child1
 "It's the child who is reading."

(Kimenyi 1980: 206)

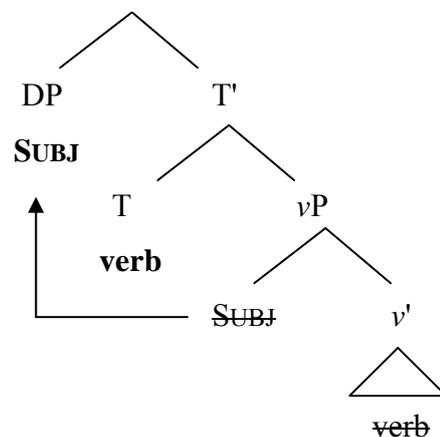
(4) and (5) show that subject agreement in Bantu is typically associated with S-V word order. When the subject precedes the verb, a SM of the same noun class is attached to the verb. In contrast, the "inverted" V-S word order is characterised by the absence of agreement. Instead of merging with a SM, the verb is prefixed with a non-agreeing default marker from a locative noun class (class 17 *ku-* in Zulu; class 16 *ha-* in Kinyarwanda). I follow Demuth (1990), Van der Spuy (1993), Zerbian (2005) and others in analysing this locative marker as an expletive. As the examples show, the expletive and the SM are in complementary distribution. I therefore assume that the expletive is required for purely morphological reasons; it fills the subject prefix-slot and must be attached to the verb stem at PF if no SM is present (cf. Baker 2003).

The standard syntactic analysis of Bantu subject-verb inversion assumes that in the "inverted" structure, the postverbal subject is in its base position inside the vP, while the verb has moved to a higher functional head position (for example, T), as in (6a) below (cf. Demuth 1990; Demuth and Mmusi 1997; Baker 2003; Letsholo 2004; Carstens 2005; Zerbian 2006a; Hyman and Polinsky 2007). The S-V order is then derived by moving the subject out of the vP into the canonical preverbal subject position which is higher than the landing site of the verb, as in (6b). In this paper, I follow the standard approach and assume that this position is [Spec, T].²

(6) a. V-S-order TP



b. S-V-(O)-order TP



Notice that no category occupies [Spec, T] in (6a) (recall that I analyse the locative markers in examples such as (4b) and (5b) as morphological expletives). If one adopts the current Minimalist view and assumes that the projection of [Spec, T] is due to the EPP, then (6a) implies that in the non-agreeing V-S construction, the T-head does not have an EPP-feature.³ Since movement is only permitted when required (the *Last Resort*-principle, cf. Chomsky 1995), subject movement cannot take place in (6a); consequently, non-agreeing subjects must remain in [Spec, v]. In contrast, [Spec, T] is projected in (6b); whenever the SM occurs, the subject must move. The obvious question that arises is why subject agreement is associated with subject movement / the EPP in Bantu. Why does the subject end up in [Spec, T] when there is an agreeing SM, and why is the SM absent when the subject has remained *in situ*?

Interestingly, in the Government-Binding Theory (Chomsky 1981; 1986) and early versions of the Minimalist Program (Chomsky 1995), it was assumed that agreement is *only* licensed if a functional head and the DP with which it agrees stand in a Spec-Head relation. Since the Bantu data show that agreement between T and the subject requires the subject to be in [Spec, T], they could be interpreted as support for this assumption. However, the theory of Spec-Head agreement has been abandoned in later versions of the Minimalist Program. It is now widely assumed that for agreement between T and a DP to be established, it is sufficient that the DP is in the c-command domain of T (cf. Chomsky 2000 and subsequent work). There are important conceptual reasons for this view, which concern the idea that the computational system builds syntactic structures in a bottom-up fashion. When a functional head F is merged with its complement α , F's uninterpretable features must immediately start searching for a phrase with matching interpretable agreement features. The available search space at this stage of the derivation is α , F's c-command domain. According to Chomsky (2005, 2006), "minimal search conditions" rule out agreement between F's features and a constituent outside F's c-command domain. Since [Spec, F] is not c-commanded by F, Spec-Head agreement cannot exist.

But more importantly, the idea that c-command is a sufficient structural condition for agreement is first and foremost motivated by empirical evidence. For instance, in many languages, verbs can agree with postverbal subjects. The examples in (7) and (8) illustrate that subject movement to [Spec, T] is not a necessary condition for subject agreement in English and Italian.

- (7) a. Some students were/*was in the room.
 b. There were/*was some students in the room.

- (8) a. Io ho/*ha/*abbiamo camminato.
 I have-1SG/*3SG/*3PL walked
 "I walked."
 b. Ho/*ha/*abbiamo camminato io.
 have-1SG/*3SG/*3PL walked I
 "I walked."

(Italian; Samek-Lodovici 2002 example (4))

Data such as those in (7) and (8) strongly support the view that T can agree with a postverbal subject DP, as long as it c-commands it. But if this is the case, then the lack of agreement in constructions such as (4b) and (5b) remains a puzzle.

To my knowledge, the question why subject agreement in many Bantu languages requires the subject to move out of the vP has not yet received a satisfactory answer. Rather, the correlation between agreement and movement is usually stipulated rather than explained. Baker (2003), for example, suggests that agreement in Bantu is a subfeature of the EPP-feature of T. The EPP-feature of T triggers movement of the subject to [Spec, T]; if agreement is associated with the EPP-feature, then subject agreement can only be attested if the subject is vP-external. Carstens (2005) makes a similar proposal. In her theory, the EPP-feature is a subfeature of T's agreement features. This means that whenever a functional head like T is equipped with agreement features, this head also has the EPP-feature and therefore triggers movement of the constituent with which it agrees.

Because of the difference between examples such as (4b) and (5b) on the one hand and (7) and (8) on the other, both Baker (2003) and Carstens (2005) formulate the link between agreement and the EPP found in Bantu as a parameter. This parameter is set in Bantu in the manner described above: agreement is a subfeature of the EPP (or vice versa), and subject agreement can therefore only be triggered by subjects in [Spec, T]. In contrast, the same parameter is set differently in languages like English or Italian, giving rise to a grammar in which subject agreement is independent of subject movement.

Although these proposals capture the data, neither Baker nor Carstens **explain** why agreement is so closely linked to subject movement and the EPP in Bantu. In the following sections, I attempt to provide an analysis of the data in (4) and (5) which offers such an explanation. The analysis is based on the idea that the SM and the subject DP initially form part of the same phrase, a proposal which I motivate below.

3. The SM and the subject form one constituent

3.1 "Big" DP

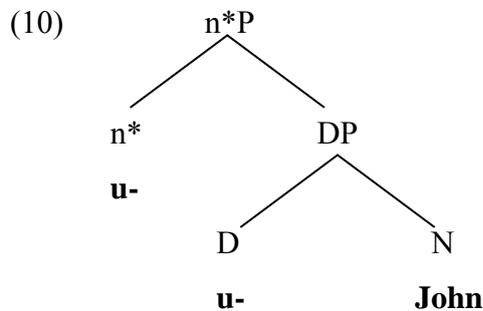
As a starting point of my analysis, I follow Young (2005), Schneider-Zioga (2007) and others and assume that the SM in Bantu is a pronominal clitic. Crucially, I assume that this pronominal clitic, which occurs in sentences with S-V word order in Bantu, is not simply a morphological reflex of an agreement relation between the subject and the functional head T. Rather, I suggest that what I have thus far called subject-verb "agreement" in Bantu should rather be analysed as a case of clitic doubling. The clitic (the SM) doubles the subject DP whenever the latter has moved out of the vP.

There is a prominent proposal that has been adopted for clitic doubling constructions as well as for other phenomena in which a pronominal element "doubles" another constituent in the same clause. According to this proposal, the clitic and the "double" form one constituent, which is sometimes called a "big" DP. For example, in Kayne's (1994) analysis of relative clauses, the head noun and the relative pronoun start out as one constituent. Uriagereka (1995) analyses clitic doubling in Romance assuming that the clitic is the head of a DP which also includes the doubled argument DP. Cecchetto (1999) develops an account of left and right clitic dislocation in Romance which assumes that the dislocated constituent and the clitic form a big DP at the beginning of the derivation, and Boeckx (2003) adopts the big DP-proposal for his theory of resumption and locality. The view that subject "agreement" in Bantu is a case of clitic doubling suggests that the relation between the SM and the subject DP can also be represented in terms of a big DP-structure.

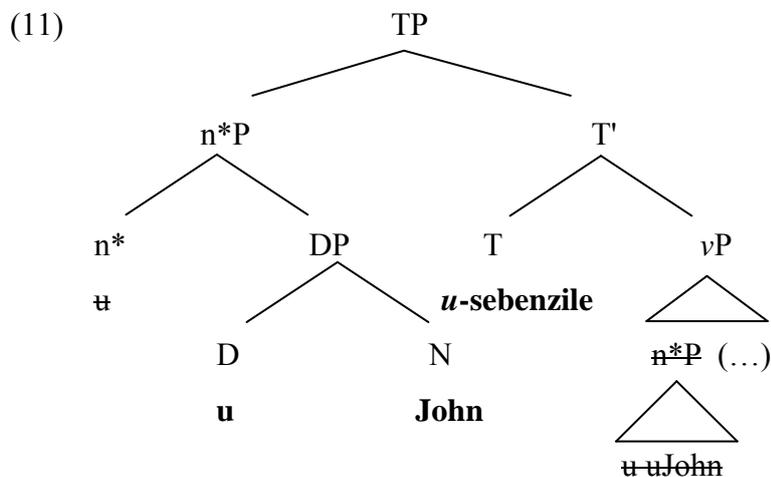
In order to make this idea more specific, I now adopt a proposal made by Chomsky (2006), according to which all noun phrases are represented as so-called n^* P_s. The element n^* is a functional category which selects the DP; n^* is the nominal equivalent of the (transitive) light

verb v^* which selects the VP. I henceforth assume that what has been called a "big" DP in some of the theories mentioned above is simply an n^*P . Importantly, I suggest that in Bantu, n^* can be realised by an overt element, namely the SM. This means that the SM takes the subject DP as its complement. The subject of the Zulu sentence in (9) therefore has the basic structure in (10).

- (9) UJohn u-sebenz-il-e. (Z.)
 John_{1a} SM_{1a}-work-DIS-PST
 "John worked."



As was shown in section 2, the base position of subjects is [Spec, v]. In the derivation of (9), the subject n^*P in (10) is first merged in this position. However, for reasons to be discussed in section 4, this n^*P cannot remain in the vP , but must move to [Spec, T]. Furthermore, the head of the n^*P (the SM) incorporates into T and combines with the verb (cf. Young 2005), as in (11).⁴



incorporates into T and combines with the verb, we derive (14). This means that one does not need to adopt the (standard) *pro*-theory for null subject constructions in Bantu. This is a welcome result, since the *pro*-theory faces some non-trivial conceptual problems when applied to Bantu languages (cf. Murphy 1997; Van der Spuy 2001). The n*P-proposal in (10) avoids these problems, since *pro* does not have to be postulated. The subject θ -role in "null subject"-constructions is in fact assigned to an overtly realised subject – the SM.

So far, my proposal does not yet explain why a subject n*P has to leave the vP if its head is realised by the SM. Before I provide an answer to this question in section 4, I present and discuss some interesting empirical data which provide support for the big DP (= n*P) analysis of subject agreement presented in (9)-(11).

3.2 The distribution of n*P-internal elements

In Aghem, a Western Grassfield Bantu language spoken in Cameroon, the SM cannot occur when the preverbal subject noun phrase includes a demonstrative determiner (Hyman 2007) (cf. the examples in (15)).

- (15) a. bvu ti mo zi ki-be.
 dogs D/SM AUX eat fufu
 "The dogs ate the fufu."
 b. bvu tin (*ti) mo zi ki-be.
 dogs DEM D/SM AUX eat fufu
 "These dogs ate the fufu."

(Aghem; Hyman 2007: 16)

The element *ti* in (15a) precedes the finite auxiliary verb stem and therefore can be analysed as a SM. However, when the subject *bvu* ("dogs") is modified with a demonstrative article, this SM cannot occur. In order to explain the complementary distribution of SMs and demonstrative determiners in Aghem, Hyman (2007) suggests that the SMs in Aghem are in fact determiners and as such form part of the subject noun phrase. This idea is obviously compatible with the proposal made in section 3.1. If we assume that both SMs and demonstrative articles in Aghem are n*-heads, then the incompatibility of the demonstrative and the SM in (15b) follows directly. In contrast, the difference between (15a) and (15b) is

hard to explain within a theory which treats the SMs in Bantu simply as agreement markers. If SMs are analysed as inflectional morphemes which spell out agreement features of T, then it is not clear why their presence depends on the internal structure of the phrase in [Spec, T].

However, in other Bantu languages, e.g. Zulu and Kinyarwanda, the SM can co-occur with a subject DP modified with a demonstrative, as in (16) and (17).

(16) Laba bafana ba-sebenz-il-e. (Z.)

DEM2 boy2 SM2-work-DIS-PST

"These boys worked."

(17) Úmo muoôbwa a-ra-rírimb-ir-a abahuûngu ku mafaraanga. (K.)

DEM1 girl1 SM1-PRES-sing-APPL-ASP boy2 for money

"This girl is singing for boys for money."

(Kimenyi 1980: 88)

Although the data in (16) and (17) do not directly support the n*-analysis of the SM, they do not contradict it either. Note that noun phrase-internal heads may realise different functional categories in different languages. In English, for example, possessive pronouns are determiner-like and presumably of category D. Therefore, possessive pronouns and definite articles are in complementary distribution in this language (cf. (18)). In contrast, possessive pronouns in Italian are more like adjectives and therefore can co-occur with definite articles, as in (19).

(18) *the my house

(19) la mia casa

D POSS house

"my house"

I suggest that the difference between n*P-internal heads in a Bantu language like Aghem on the one hand and in languages such as Zulu and Kinyarwanda on the other is of a similar nature. Demonstratives in Aghem are of category n*; a subject n*P whose head is realised by

a demonstrative therefore does not license the SM. In contrast, demonstratives in Zulu and Kinyarwanda are of category D. Since the DP is selected by n^* , a subject DP headed by a demonstrative may appear together with a SM. According to this proposal, the basic syntax of subjects is the same in Aghem, Zulu and Kinyarwanda (the SM is an n^* -head which selects the subject DP), while the differences between these languages can be reduced to the different functional category of demonstratives.

In contrast, the difference between (15b) and (16)-(17) cannot be captured easily in the traditional theory, which treats SMs in Zulu and Kinyarwanda as morphological reflexes of agreement features in T. Since this theory would still have to analyse the SMs in Aghem as determiners in order to account for the contrast in (15), it implies that subject agreement in the Bantu languages is not a uniform phenomenon, but that it is established through different structures and processes. I believe that this unwelcome implication of the traditional theory of subject agreement can be considered a conceptual argument in favour of the n^* -analysis of the SM presented in section 3.1.

3.3 Coordination of singular n^* Ps

As is well-known, the Bantu noun class system is organised in pairs, with the odd noun classes including singular nouns and the even classes including the corresponding plural nouns. A few examples from Zulu appear in (20) to illustrate this.

- (20) Class 1: *umfana* ("boy") Class 3: *umuthi* ("tree") Class 5: *ikati* ("cat")
 Class 2: *abafana* ("boys") Class 4: *imithi* ("trees") Class 6: *amakati* ("cats") etc.

Recall that the traditional analysis of subject agreement treats the SM as a reflex of agreement features in T whose values are determined by the interpretable ϕ -features of the subject in [Spec, T]. This view makes a crucial prediction concerning the kind of SM that should appear with coordinated subjects. If two singular noun phrases belonging to the same noun class are coordinated, one expects the SM of the respective plural noun class to be used. Indeed, this is what we find in many Bantu languages when two singular noun phrases of class 1/1a are conjoined (cf. (21) and (22)).

(21) Udokotela no-nesi ba-ngen-a e-sibhedlela. (Z.)
doctor_{1a} and-nurse_{1a} SM2-enter-FV LOC-hospital₇
"The doctor and the nurse go into the hospital."

(22) Mwalimu na mwanafunzi wake wa-li-kuja.
teacher₁ and student₁ his SM2-PST-come
"The teacher and his student came."

(Swahili; Marten 2000 example (13))

In (21) and (22), the two coordinated nouns belong to class 1/1a (the class which includes most of the [+ human] nouns in Bantu). The derived subjects are therefore plural, and consequently, the SM of class 2 is found attached to the verb stem. Marten (2000) calls this pattern "morphological agreement".

However, it is a peculiar property of many Bantu languages that morphological agreement is not a prominent way of expressing agreement with conjoined subject NPs belonging to singular nouns from other noun classes. The examples from the literature in (23) to (25) illustrate that morphological agreement is either impossible or a highly marked option in many Bantu languages when the conjoined nouns do not belong to noun class 1.

(23) *Umlambo no-mjelo i-bon-w-a ngu-ye.
river₃ and-water₃ SM4-see-PASS-FV by-him
"The river and the water were seen by him."

(Xhosa; Young 2005: 5)

(24) *E-talang'i nende e-xima xe-chi-p-an-a.
lion₉ and monkey₉ AUX-SM10-hit-RECIP-FV
"The lion and the monkey are hitting each other."

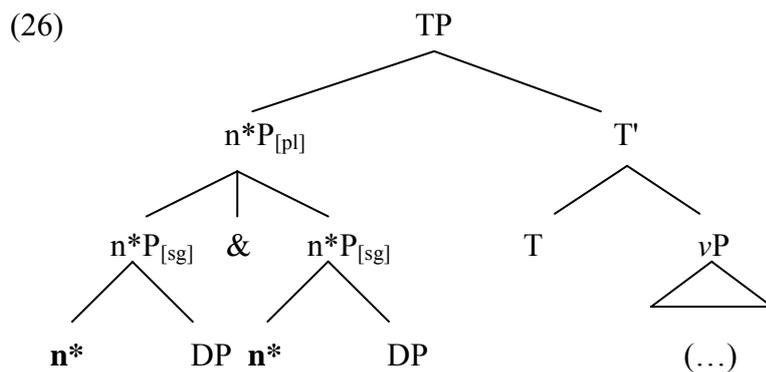
(Lubukusu; Young 2005: 7)

(25) ?Munwe na mulenzhe i a fara.
finger₃ and foot/leg₃ SM4 DIS hold
"The finger and the foot hold (things)."

(Venda; Murphy 1997: 231)

As (23) and (24) show, the Xhosa and Lubukusu-data provided by Young (2005), in which coordinated nouns of class 3 and 9 appear with class 4 and 10 SMs, are marked as ungrammatical. The question-mark associated with Murphy's (1997) example signals that speakers' judgments are not uniform: according to Murphy, half of the Venda speakers who were consulted accepted data such as (25), the other half did not.⁶

If the SM is analysed as an expression of agreement between the verb (in T) and the grammatical features of the coordinated subject, the judgments shown in (23)-(25) are puzzling. In contrast, the marked status of the examples in (23)-(25) follows as a direct consequence of my proposal that the SM is the head of the subject n*P. If noun phrases are n*Ps headed by their SMS, then the structure of a sentence with a conjoined n*P in subject position looks like (26).



In (26), [Spec, T] is occupied by a plural n*P which consists of two coordinated singular n*Ps. The problem with morphological agreement now follows directly from the syntax of coordination: Since two singular n*Ps are conjoined in (26), there are two singular SMS in the structure. However, the complex plural n*P which includes these two conjoined n*Ps does not have a plural n*-head. Therefore, there is no plural SM which could incorporate into T and merge with the verb.

In this respect, it is interesting to note that some Bantu languages allow for what Marten (2000) calls "syntactic agreement" in constructions with coordinated singular subjects. Syntactic agreement means that in constructions similar to (23)-(25), a **singular** SM corresponding to **one of the two** conjoined noun phrases can be used. The example from Xhosa in (27) illustrates this.

- (27) Umlambo no-mjelo u-bon-w-a ngu-ye.
river3 and-water3 SM3-see-PASS-FV by-him
"The river and the water were seen by him."

(Xhosa; Young 2005: 5)

Although the subject noun phrase consisting of two coordinated singular nouns of class 3 in (27) is plural, the SM which appears prefixed to the verb is singular. Similar instances of syntactic agreement are also attested in constructions where the two conjuncts belong to different noun classes, as in (28) and (29).

- (28) Umalume ne-zinja zakhe u-zingel-a ehlthini. (Z.)
uncle1 and-dog10 his SM1-hunt-FV LOC-forest
"Uncle and his dogs are hunting in the forest."

(Bosch 1985; quoted in Canonici 1995: 26)

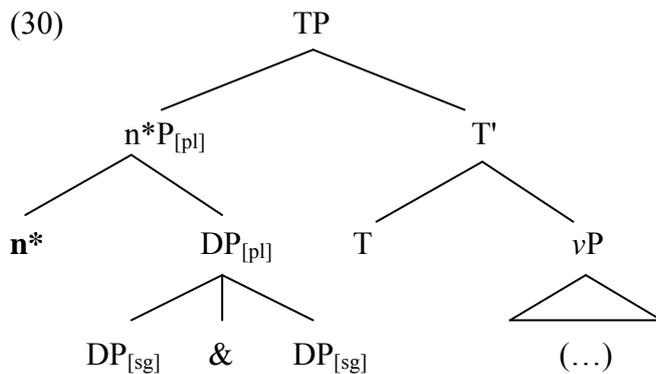
- (29) Mguu wa meza na kiti ki-mevunjik-a.
leg3 of table and chair7 SM7-be.broken-FV
"The leg of the table and the chair are broken."

(Swahili; Marten 2000 example (28))

In (28), a class 1 (singular) and a class 10 (plural) noun have been coordinated. The SM attached to the verb is of class 1, corresponding to the first conjunct. In (29), two singular nouns belonging to different noun classes (class 3 and class 7) are conjoined, but the SM is singular, agreeing with the noun class of the second conjunct.

The agreement pattern exhibited by these data is completely unexpected from the perspective of the traditional agreement-analysis. In contrast, the structure in (26) offers an explanation for the syntactic agreement pattern shown in (27)-(29). According to my proposal, the SM is an incorporated n*-head. Since the structure in (26) includes two singular SMs, (27)-(29) can be derived if it is assumed that either one of the two SMs present in the structure can incorporate and combine with the verb.⁷

What about the coordination of class 1-nouns, which gives rise to morphological agreement? Fortunately, these cases can also be captured in my theory if an alternative structure for coordinated subjects is permitted. I assume that morphological agreement results when a subject n^*P is formed by conjoining two DPs, as in (30).



As (30) shows, if two singular DPs are coordinated, the result is a plural DP. If this DP is merged with an n^* , then the SM which realises the features of n^* must also be plural. Consequently, incorporation of n^* derives a sentence with morphological agreement.

Admittedly, this analysis does not yet explain why (30) is consistently available for DPs of noun class 1, but not consistently for DPs belonging to other noun classes. (I assume that the grammar of those speakers who accept morphological agreement with other noun classes also permits (30) as a structural option for the coordination of non-human subjects.) However, at least my proposal offers a way of deriving the agreement differences illustrated above from different structural representations of the coordinated subjects. In contrast, in a traditional theory of subject agreement, the marked nature of morphological agreement and the possibility of syntactic agreement remain entirely unexplained. A theory which treats the SM as a reflex of the grammatical features of the subject falsely predicts plural number agreement in all cases. The proposal that the SM is part of the subject does not make such a prediction; instead, both the grammatical and the ungrammatical instances of morphological agreement, as well as the existence of syntactic agreement, can be accommodated by this idea. Furthermore, my proposal clearly identifies the directions of further research on these data. For example, it would be interesting to investigate whether there are independent reasons for why only [+human] nouns can be coordinated as DPs and why the structure in (30) is not available for non-human subjects. Although I cannot explore these questions here, I believe

the discussion has shown that the n*-analysis of the SM is much better equipped to deal with the coordination data than the traditional agreement analysis.

4. The SM as an antifocus marker

Having argued that the SM in Bantu is a determiner-like clitic which starts out as the head of the subject n*P, I can now return to, and slightly rephrase, the question raised at the end of section 2. If subject agreement means that the subject n*P is headed by the SM, then the subject-verb inversion data tell us that an n*P headed by the SM must move out of the vP. In contrast, vP-internal subject n*Ps cannot be headed by the SM. Why should this be the case?

My answer to this question is based on an important observation made by Kallulli (2000) regarding the interpretative effects of clitic doubling. Kallulli shows that in Albanian and Greek, a clitic can only double an object if the object is marked as [– Focus]. The example in (31) illustrates this idea most clearly. In (31), the direct object *Tiranën* ("Tirana"), is contrastively focused and can therefore not be doubled.

- (31) Pap-a (*e) vizitoi madje Tiranë-n (jo vetëm Shkodrën).
 pope-the CL visited even Tirana-the not only Shkodra
 "The pope visited even Tirana (not only Shkodra.)"

(Albanian; Kallulli 2000: 222)

The contrastive focus-interpretation requires the object to be marked as [+ Focus]. Since the clitic which doubles the object would obligatorily mark the latter as [– Focus], it cannot appear in (31). Furthermore, [+ wh] objects in Albanian cannot be doubled (cf. (32)).

- (32) Kë/çfarë (*e) pe?
 who/what.ACC CL saw-you
 "Who/what did you see?"

(Albanian; Kallulli 2000: 220)

It is an established fact that a wh-phrase represents the focus of the sentence in which it occurs. In Sabel (1998, 2000) and Sabel and Zeller (2006), it is therefore argued that a wh-

phrase not only bears a [+ wh]-feature, but is also marked as [+ Focus]. This explains the impossibility of doubling a wh-phrase in Albanian with a clitic, which explicitly marks the doubled constituent as [- Focus].

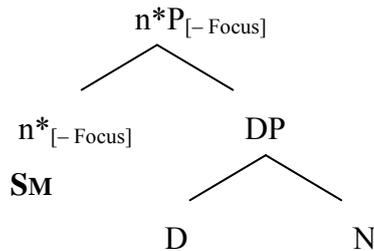
The nature of focus marking and the effects of clitic doubling are further illustrated by the question-answers pairs in (33) and (34)-(35) (Kallulli 2000: 218-9).

- (33) a. Q: What did Ana do? (VP-focus)
 b. Q: What did Ana read? (Object focus)
 c. Q: Who read the book? (Subject focus)
 d. Q: What did Ana do to/with the book? (verb focus)
- (34) An-a lexoi libr-in. (no doubling)
 Ana-the read book-the
 "Ana [read the book]_F."
 "Ana read [the book]_F."
- (35) An-a e lexoi libr-in. (doubling)
 Ana-the CL read book-the
 "[Ana]_F read the book."
 "Ana [read]_F the book."

An answer to the question in (33a) requires the VP-predicate to be in focus. According to Selkirk's (1984) theory of focus projection, VP-focus is the result of a [+ Focus]-feature on the complement of the verb, which projects to the VP-level. This means that only (34), but not (35), is an appropriate answer to the question in (33a), since the object in (35) is marked as [- Focus] by the clitic. Similarly, the question in (33b) requires an answer with object focus, and again, only (34) is a possible candidate. In contrast, the questions in (33c) and (33d) can both be answered by the sentence in (35): a [+ Focus]-feature on the subject (required in the answer to (33c)) or on the verb (as in an answer to (33d)) does not create a conflict with the [- Focus]-feature on the object introduced by the clitic in (35).

Recall that I have argued that the SM in Bantu is a clitic and that subject agreement is actually a case of clitic doubling. I now suggest that the SM in Bantu has the same effect on the interpretation of the subject n*P in Bantu as clitic doubling has in the Albanian examples: the SM marks the subject n*P as [- Focus] (cf. (36)).

(36) Bantu: n*Ps realise [- Focus]-n* as the SM:



According to the proposal illustrated by (36), the SM is an "antifocus" marker (cf. Ndayiragije 1999); the SM in Bantu is the phonological realisation of an n*-head with the feature [- Focus]. A subject which co-occurs with a SM in Bantu is therefore explicitly marked as [- Focus].

This idea makes an important prediction. Since the SM appears whenever the subject has moved out of the vP (cf. section 2), (36) implies that preverbal subjects in [Spec, T] are always [- Focus]. It is therefore predicted that a preverbal subject in Bantu can never be the focus of the sentence in which it occurs.

This prediction is borne out. As has been shown for an overwhelming number of languages, the S-V order in Bantu is incompatible with subject focus. For example, on the basis of a detailed empirical analysis of Northern Sotho, Zerbian (2006a: 181) concludes that "[t]he preverbal subject must not be F-marked" in this language. Similarly, Sabel and Zeller (2006) demonstrate that elements with a [+ Focus]-feature are not licensed in preverbal subject position in Zulu. Kimenyi (1980) illustrates the impossibility of subject focus in S-V constructions in Kinyarwanda by means of the examples in (37).

- (37) a. *Abáana bonyíne b-a-gii-ye. (K.)
 child2 only SM2-PST-go-ASP
 "Only the children left."

- b. H-a-gii-ye abáana bonyíne.
 EXPL-PST-go-ASP child2 only
 "Only the children left."

(Kimenyi 1980: 51)

As (37a) shows, a focus marker such as *bonyíne* ("only") cannot take scope over a preverbal subject in Kinyarwanda. However, the focus marker can refer to the subject when it occurs inside the vP, as in (37b). Notice that there is no SM in (37b) (the verb is prefixed with an expletive), which means, according to my theory, that the subject is not explicitly marked as [– Focus] in this example and can therefore be assigned a [+ Focus]-feature.

The same incompatibility of subject focus and S-V word order can be observed in Zulu, as in (38).

- (38) Ngi-mem-e wonke umuntu, kodwa (Z.)
 1SG-invite-PST every1 person1 but
 "I invited everybody, but..."
- a. *uJohn kuphela u-fik-il-e. (S-V)
 John1a only SM1a-arrive-DIS-PST
- b. ku-fik-e uJohn kuphela. (V-S)
 EXPL17-arrive-PST John1a only
 "...only John came."

As in Kinyarwanda, the focus marker *kuphela* ("only") in Zulu can only take scope over the subject if the subject occurs vP-internally, as in (38b).

Finally, since preverbal subjects are marked as [– Focus] by the SM, wh-phrases cannot be located in preverbal subject position in Bantu, a fact which has been attested in numerous studies of different Bantu languages (cf., e.g., Bokamba (1976) for Dzamba; Kimenyi (1980) and Maxwell (1981) for Kinyarwanda; Demuth and Johnson (1989) for Setawana; Ndayiragije (1999) for Kirundi; Baker (2003) for Kinande; Muriungi (2005) for Kitharaka; Sabel and Zeller (2006) for Zulu; Zerbian (2006a) for Northern Sotho) (cf. (39) and (40)).

- (39) a. *Ubani u-fik-il-e? (Z.)
 who1a SM1a-arrive-DIS-PST
 "Who arrived?"
- b. Ku-fik-e bani?
 EXPL17-arrive-PST who1a
 "Who arrived?"
- (Sabel and Zeller 2006: 273)
- (40) a. *Ndé y-a-kó-ze? (K.)
 who1 SM1-PST-work-ASP
 "Who worked?"
- b. Ha-ko-ze nde?
 EXPL16-work-ASP who1
 "Who worked?"

The data in (39) and (40) follow directly from the proposal illustrated in (36). Since the *wh*-subjects in (39a) and (40a) co-occur with the SM, they are marked as [– Focus], but this specification contradicts the [+ Focus]-feature inherently associated with *wh*-phrases (cf. Sabel 1998, 2000; Sabel and Zeller 2006). In contrast, the SM is absent in the V-S constructions in (39b) and (40b), thus there is no problem with the [+ Focus]-feature of the *wh*-subjects in these constructions.

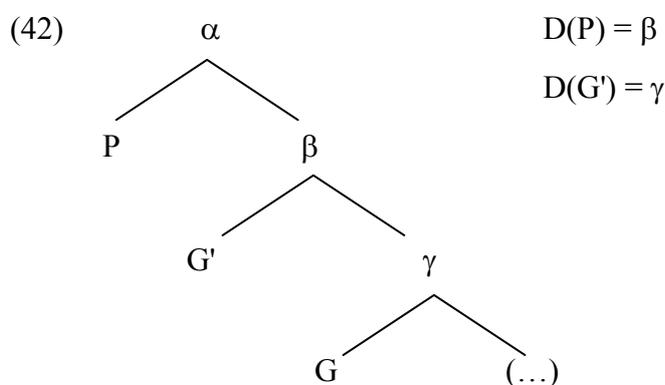
My proposal so far correctly predicts that "agreeing" subjects, which trigger the occurrence of the SM, cannot be in focus. I now turn to the question why subjects marked as [– Focus] have to move out of the *vP*. My answer is based on the insight that the *vP* is the "dedicated" domain of focus. Therefore, a phrase which is explicitly marked as antifocus is not tolerated inside this domain (cf., e.g., Diesing 1992; Uriagereka 1995; Hyman and Polinsky 2007). It is possible that this insight is already sufficient to explain why [– Focus]-subjects have to leave the *vP*. However, I would like to go one step further and derive this requirement from syntactic conditions of focus licensing. On the basis of these conditions I then develop a syntactic explanation for the impossibility of leaving a subject *n*P* whose head is the SM in [Spec, *v*].

In order to develop this account, I adopt a proposal by Miyagawa (2005), who argues that the functional head T bears an uninterpretable Focus-feature. This feature can be regarded as a morphological reflex of a focus operator which is located in [Spec, C] (cf. Hyman and Polinsky 2007); alternatively, it could be assumed that the phase head C is inherently equipped with a Focus-feature which is then transferred to T along with C's uninterpretable ϕ -features (cf. Chomsky (2001, 2005) on feature transfer from C to T). Crucially, I assume that T has a [+ Focus]-feature which must enter an Agree-relation with an interpretable [+ Focus]-feature within its minimal search domain. In other words, the [+ Focus]-feature of T is a **probe** P which seeks a **goal** G – the [+ Focus]-feature of another constituent which determines the focus interpretation of the sentence according to Selkirk's (1984) rules of focus projection. This feature must be located in the c-command domain of T, which is the vP.

Importantly, I assume that focus agreement, like the Agree-relation in general, is subject to locality constraints, defined as in (41) by Chomsky (2000: 122).

- (41) *Locality*: D(P) is the c-command domain of P, and a matching feature G is closest to P if there is no G' in D(P) matching P such that G is in D(G').

According to (41), a probe P can only agree with the **closest** goal in its c-command domain. This means that the probe P in the structure in (42) cannot agree with the goal G, since the goal G' is in the c-command domain of P, but c-commands G. G' therefore intervenes and blocks agreement between P and G (cf. (42)).

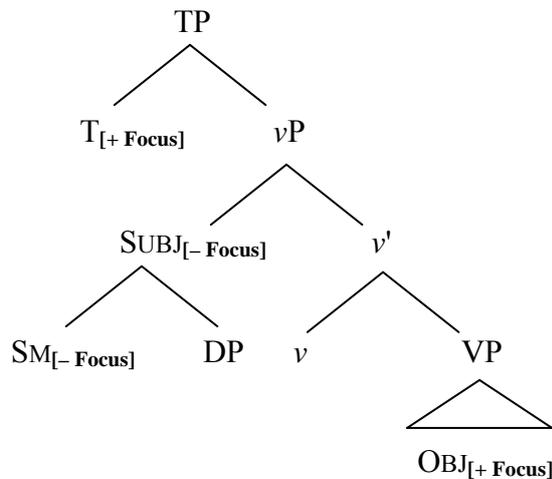


Notice that (41) states that the feature G' blocks agreement between P and G in (42) when it **matches** the feature P. Chomsky (2000: 122) defines feature matching as identity in feature

type, but not necessarily feature value. For example, despite its different number value, a singular DP can block agreement between a plural DP and a plural T, since its feature type (ϕ -features) matches that of the probe. This point has a crucial consequence for focus agreement. A [- Focus]-feature is a feature of the same type as a [+ Focus]-feature, but with a different (a negative) value. This means that although the [+ Focus]-feature of T can **agree** only with another [+ Focus]-feature, it also **matches** a [- Focus]-feature. Importantly, this in turn implies that the agreement relation between the [+ Focus]-feature of T and the [+ Focus]-feature of a focused constituent inside the vP can be blocked by an intervening [- Focus]-feature.

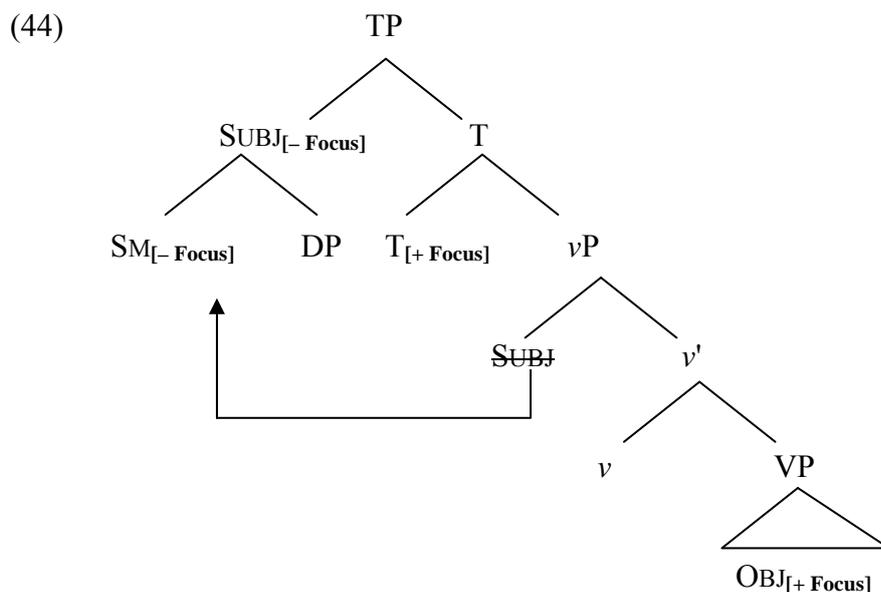
This idea explains why a [- Focus]-subject cannot remain inside the vP. Such a subject would create an intervention effect; its [- Focus]-feature (introduced by the SM) would block agreement between the [+ Focus]-feature of T and the interpretable [+ Focus]-feature of a constituent further down in the structure, as in (43).

(43)



(43) is the abstract representation of a clause with object focus; the object is therefore marked as [+ Focus]. The subject DP has merged with the SM, which explicitly marks the subject as [- Focus]. The subject n*P is located in [Spec, v], thus in the c-command domain of T. Since the [- Focus]-feature of the subject matches the [+ Focus]-feature of T and also c-commands the [+ Focus]-feature of the object, the agreement relation between the two [+ Focus]-features is obstructed. If the subject n*P remains in [Spec, v], then no focus marking can be established in the clause, and the derivation crashes at the CI-interface.

However, the computational system has the possibility to perform an operation which allows for the derivation in (43) to converge: it can move the subject out of the c-command domain of T. This can be achieved if T is equipped with an EPP-feature, which triggers movement of the subject to [Spec, T].⁸ In this position, the [- Focus]-feature of the subject is not c-commanded by T. Since copies of moved elements are invisible for agreement relations in terms of Locality (cf. Chomsky 2000, 2001; McGinnis 2001), the subject no longer blocks agreement between T and the focused object, and the derivation converges, as in (44).



The strength of this proposal lies in the fact that it relates the necessity of subject movement in Bantu to other, at first sight unrelated, cases in which a construction is "saved" by moving an intervening element "out of the way". Such cases have been identified in other contexts where an Agree-relation between T and a DP needs to be established. One example is provided by Romance raising constructions with experiencer arguments, as exemplified in (45).

- (45) a. *Gianni sembra a Maria [~~Gianni~~ essere stanco].
 Gianni seems to Maria be ill
 "Gianni seems to Maria to be ill."
- b. A chi sembra Gianni a chi [~~Gianni~~ essere stanco].
 to whom seems Gianni be ill
 "To whom does Gianni seem to be ill?"

- c. Gianni gli sembra gli [Gianni essere stanco].
 Gianni to-her seems be ill
 "Gianni seems to her to be ill."

(Italian; Boeckx 2008: 88-9)

Raising involves an agreement relation between the probe, the uninterpretable ϕ -features of matrix T, and the goal, the interpretable ϕ -features of the embedded subject of the raising infinitive. (45a) shows that raising of an embedded subject is impossible in Italian if the main clause includes an experiencer. The reason is that the ϕ -features of the experiencer are closer to the probe than those of the embedded subject and therefore block agreement between the matrix T and the embedded subject.⁹ However, (45b) and (45c) show that this agreement relation is no longer blocked when the experiencer has moved out of the c-command domain of matrix T, either via wh-movement to [Spec, C] as in (45b), or via clitic incorporation into a higher functional head, (45c).

Another example is passivisation in Greek double object constructions, as in (46).

- (46) a. ?*To vivlio charistike tis Marias ~~to vivlio~~ apo ton Petro.
 the book award-PASS the Mary from the Petros
 "The book was awarded to Mary by Peter."
 b. To vivlio tis charistike.
 the book to-her award-PASS
 "The book was awarded to her."

(Greek; Anagnostopoulou 2003: 194)

(46) shows that it is not possible to passivise the direct object in the Greek double object construction in (46a), because the direct object is in the c-command domain of the indirect object *tis Marias*. The ϕ -features of the indirect object are therefore closer to the probe T than those of the direct object and block Agree between the latter and T. However, in (46b), the indirect object is realised as the pronominal clitic *tis*, which has moved out of the c-command domain of T. As a result, T can agree with the direct object, and passivisation of this DP is possible.

These data confirm that syntactic movement of an element is a way of eliminating intervention effects. The analysis shown in (43) and (44) above therefore has the advantage that its key mechanism is a well-established phenomenon in the syntax of natural languages.

Crucially, my proposal explains that movement of the subject is only required (and, because of Last Resort, only possible) when the SM occurs. The SM explicitly introduces the feature [– Focus], which matches the [+ Focus]-feature of T and creates an intervention effect if the subject remains in [Spec, v]. Without the SM, however, a subject is allowed in its base position, since it is not explicitly marked as [– Focus]. A vP-internal subject can therefore be marked as [+ Focus] and act as a goal for the [+ Focus]-feature of T. Consequently, V-S constructions without subject "agreement" are compatible with contrastive subject focus, and subject questions are possible.¹⁰ According to this analysis, the fact that vP-internal subjects can be focused is therefore directly related to the absence of the SM (or, in traditional terms, the lack of subject agreement) in these constructions.

To sum up: In order for a sentence to be interpretable at the CI-interface, its focus structure must be licensed via an agreement relation between the [+ Focus]-feature of T and the [+ Focus]-feature of a focused constituent inside the vP. This agreement relation cannot be established if a vP-internal subject DP co-occurs with the SM, since the SM explicitly marks the subject as [– Focus], and this feature intervenes between the [+ Focus]-features of T and the focused constituent. Consequently, when a SM appears, the subject has to vacate the vP by moving to [Spec, T] in order to permit focus agreement between [+ Focus] on T and [+ Focus] on a lower constituent (an object, adverb, or verb). However, if there is no SM, the subject is not marked as [– Focus] and therefore remains in [Spec, v]. In this case, focus agreement can be established between T and the vP-internal subject, and subject focus is possible.

5. Conclusion

In this paper, I have provided a syntactic analysis of focus agreement in Bantu which is based on the idea that the SM is an antifocus marker which originates as the head of the subject n*P. My proposal offers an explanation for the fact that subject "agreement" is only licensed if the subject has moved out of the vP. The conclusion that can be drawn from this analysis is that

what has traditionally been called subject "agreement" in Bantu is rather a case of clitic doubling whose effects on the information structure of the sentence are comparable to those that have been observed in other clitic-doubling languages such as Albanian and Greek.

This conclusion leads to the conjecture that there are other languages outside the Bantu family in which antifocus marking is expressed by subject agreement markers or subject clitics. In the remainder of this paper, I briefly discuss data from a non-standard Italian dialect which provide evidence for the plausibility of this assumption.

Belletti (2001) observes that preverbal subjects in Italian cannot be focused (cf. (47)).

- (47) a. Chi è partito/ha parlato?
who is left has spoken
"Who has left/has spoken?"
b. È partito/ha parlato Gianni.
is left has spoken Gianni
"Gianni has left/has spoken."
c. *Gianni è partito/ha parlato.
Gianni is left has spoken

(Italian; Belletti 2001: 62)

The fact that only (47b), but not (47c), is a possible answer to the subject question in (47a) shows that subject focus can only be expressed when the subject appears vP-internally. In this respect, the structural conditions of subject focus in Italian are very similar to those found in many Bantu languages.

This fact is extremely interesting in light of the agreement properties observed in some Northern Italian dialects. As (48) and (49) show, the agreement facts in Conegliano are reminiscent of those in Bantu which were discussed in section 2:

- (48) a. La Maria **la** riva.
the Mary 3SgF arrive
"Mary arrives."

- b. ***La** Maria riva.
the Mary arrive

(Conegliano; Samek-Lodovici 2002 example (6))

- (49) a. Riva la Maria.
arrive the Mary
"Mary arrives."
b. ***La** riva la Maria.
3SgF arrive the Mary

(Samek-Lodovici 2002 example (7))

The above examples are interesting in two respects. First, they show that in Conegliano, only preverbal subjects show full agreement with the finite verb. Second, the examples illustrate that this agreement is expressed by means of a clitic pronoun. The subject clitic *la* (in boldface in (48) and (49)) is obligatory in constructions with preverbal subjects, but cannot occur when the subject appears postverbally (inside the vP) (cf. Brandi and Cordin 1989; Manzini and Savoia 2002; Samek-Lodovici 2002). In these respects, the subject clitics in this Northern Italian dialect seem to behave exactly like the SM in Bantu, which also occurs only with preverbal subjects.

Assuming that the focus properties of Conegliano are like those of standard Italian, this dialect presents an example of a non-Bantu language in which preverbal subjects are incompatible with focus and co-occur with clitics. On the basis of the proposal made in this paper, this observation can be captured by the idea that the subject clitic in an example such as (48a) is also an antifocus marker, which forces the corresponding subject to move out of the vP in Conegliano. As was shown above, this analysis has the welcome consequence that no mechanism of Spec-Head agreement needs to be invoked in order to account for data such as (48) and (49). Instead, it can be assumed that agreement relations are universally established in c-command configurations, while subject movement to [Spec, T], if required, is triggered by locality conditions which govern and constrain these relations.

Notes

- * I thank the audience of the 2008 Annual Conference of the Linguistic Society of Southern Africa in Stellenbosch and two anonymous reviewers for valuable comments and suggestions. Special thanks go to Nontobeko Mbelu, Nqobile Buthelezi and Dori Posel for their help. Work for this article was supported by the British Academy's UK-Africa Academic Partnership "Language and linguistic studies of Southern African languages".
1. In the glosses, I mark the Bantu noun classes and agreement through numbers. Bantu morphemes are glossed as follows: APPL = applicative; ASP = aspect; AUX = auxiliary; D = determiner; DEM = demonstrative; DIS = marker of the disjoint verb form; EXPL = expletive; FV = final vowel; LOC = locative marker; PASS = passive; PRES = present tense; PST = (recent) past tense; RECIP = reciprocal morpheme; SG = singular; SM = subject marker. I have occasionally adjusted the glosses of examples that I adopted from the literature to my system.
 2. I ignore subject right-dislocation constructions here, in which the subject has also moved out of the vP, but appears postverbally, in the right periphery of the clause (right-adjoined to VP or a higher projection). However, as will become clear below, the fact that a right-dislocated subject agrees with the verb is perfectly compatible with the proposal I make in section 4, which implies that an agreeing subject cannot remain inside the vP.
 3. The idea that [Spec, T] does not project in V-S inversion constructions in null subject languages is proposed and defended by Alexiadou and Anagnostopoulou (1998), who also provide evidence against an analysis which assumes that [Spec, T] in these constructions is filled with an expletive *pro*-subject. Alexiadou and Anagnostopoulou (1998) argue that in V-S constructions in Greek and Spanish, the EPP-feature of T is checked by the agreement morphology of the verb (which has moved to T). However, this latter proposal cannot be adopted for Bantu, where the verb does **not** agree with postverbal subjects, in contrast to Greek and Spanish. Therefore, the absence of subject movement to [Spec, T] entails that T cannot have an EPP-feature, since this feature would remain unchecked in inversion constructions in Bantu.
 4. If head movement is subject to the familiar extraction constraints, it should not be possible from the preverbal subject position (cf. Baker 1988). However, extraction from a postverbal subject position (an argument position) should be permitted. It is therefore

possible that the SM actually incorporates into T (or a lower functional head between T and vP) **before** the (remnant) n*P moves to [Spec, T].

5. In (13) I have represented the subject as an n*P with a phonetically unrealised head. Alternatively, vP-internal subjects may simply be bare DPs. I leave this point open.
6. Similarly, I believe that the judgments reported by Young may have to be treated with some caution. For example, when I presented these data at the 2008 LSSA-conference in Stellenbosch, a Xhosa speaker from the audience informed me that he judged (23) as acceptable. Nevertheless, the conclusion that morphological agreement is not consistently judged as acceptable by all speakers seems to be valid.
7. Note, however, that this analysis requires two additional stipulations, namely (i) that incorporation via head movement is not constrained by the coordinate structure constraint (Ross 1967), and (ii) that the phonological features of the second SM (the one which does not incorporate) are deleted at PF.
8. According to this idea, the EPP-feature on T is optional in principle and is assigned to T only when required. This analysis is reminiscent of Chomsky's (2001) treatment of the EPP-feature of v (which triggers movement to [Spec, v]). Chomsky (2001: 34) suggests that the EPP is optional on v; v may be assigned an EPP-feature "only when necessary to yield a new outcome".
9. Notice that the experiencer in Italian is a PP, which means that the DP-complement of P does not c-command the subject DP of the infinitive. This suggests that the ϕ -features of the DP have percolated up to the level of the PP; otherwise, the experiencer would not be expected to be able to block Agree between T's ϕ -features and those of the embedded subject.
10. It should be noted that in Southern Bantu languages such as Zulu and Northern Sotho, subject-verb inversion does not automatically yield contrastive subject focus. Rather, V-S constructions in these languages typically license presentational focus (cf. Demuth and Mmusi 1997; Buell 2005, 2006; Zerbian 2006a, b). The details of an analysis of presentational focus are far from clear (cf. Hyman and Polinsky (2007) for some discussion), although it has been suggested that presentational focus may also be licensed by a Focus-feature on the postverbal subject (cf. Buell 2006). Notice in this regard that presentational focus is unavailable in V-S-O constructions (which are highly marked in the Nguni and Sotho languages; cf. Demuth and Mmusi 1997; Zerbian 2006b); postverbal subjects are obligatorily marked as [+ Focus] and hence

contrastively focused when another argument is realised inside the vP (cf. Zerbian 2006b). This suggests that presentational focus is perhaps licensed configurationally, namely whenever an intransitive verb combines with a subject which is not specified as [- Focus]. For reasons of space, I cannot offer a more detailed analysis of presentational focus here, but it should suffice to point out that the availability of this interpretation in V-S constructions does not contradict the analysis presented above, according to which a subject has to move out of the vP only when it is explicitly marked as [- Focus] by the SM.

References

- Abney, S. 1987. *The English noun phrase in its sentential aspect*. Doctoral dissertation, MIT.
- Alexiadou, A. and E. Anagnostopoulou. 1998. Parametrizing Agr: Word order, V-movement and EPP checking. *Natural Language and Linguistic Theory* 16: 491-539.
- Anagnostopoulou, E. 2003. *The syntax of ditransitives*. Berlin/New York: Mouton de Gruyter.
- Baker, M. 1988. *Incorporation. A theory of grammatical function changing*. Chicago/London: The University of Chicago Press.
- Baker, M. 2003. Agreement, dislocation, and partial configurationality. In A. Carnie, H. Harley and M-A Willie (eds). *Formal approaches to function in grammar: In honor of Eloise Jelinek*. Amsterdam: John Benjamins. pp. 107-132.
- Belletti, A. 2001. "Inversion" as focalization. In A.C.J. Hulk and J.-Y. Pollock (eds). *Subject inversion in Romance and the theory of Universal Grammar*. Oxford: Oxford University Press. pp. 60-90.
- Boeckx, C. 2003. *Islands and chains*. Amsterdam: John Benjamins.
- Boeckx, C. 2008. *Understanding minimalist syntax*. Oxford: Blackwell.
- Bokamba, E. G. 1976. Question formation in some Bantu languages. Doctoral dissertation, Indiana University.
- Bosch, S. E. 1985. *Subject and object agreement in Zulu*. Masters thesis, University of Pretoria.
- Brandi, L. and P. Cordin. 1989. Two Italian dialects and the null subject parameter. In O. Jaeggli and K. Safir (eds). *The null subject parameter*. Dordrecht: Kluwer. pp. 111-142.
- Buell, L. 2005. *Issues in Zulu verbal morphosyntax*. Doctoral dissertation, University of California, Los Angeles.

- Buell, L. 2006. The Zulu conjoint/disjoint verb alternation: Focus or constituency? In L. Downing, L. Marten and S. Zerbian (eds). *Papers in Bantu grammar and description. ZAS Papers in Linguistics* 43: 9-30.
- Canonici, N. 1995. *Zulu grammatical structure*. Zulu Language and Literature, University of Natal, Durban.
- Carstens, V. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory* 23: 219-279.
- Cecchetto, C. 1999. A comparative analysis of left and right dislocation in Romance. *Studia Linguistica* 53: 40-67.
- Chomsky, N. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, N. 1986. *Knowledge of language*. New York: Praeger.
- Chomsky, N. 1995. *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, N. 2000. Minimalist inquiries: The framework. In R. Martin, D. Michaels and J. Uriagereka (eds). *Step by step*. Cambridge, Mass.: MIT Press. pp. 89-155.
- Chomsky, N. 2001. Derivation by phase. In M. Kenstowicz (ed). *Ken Hale. A life in language*. Cambridge, Mass.: MIT Press. pp. 1-52.
- Chomsky, N. 2005. *On phases*. Manuscript, MIT.
- Chomsky, N. 2006. *Approaching UG from below*. Manuscript, MIT.
- Demuth, K. 1990. Locatives, impersonals and expletives in Sesotho. *The Linguistic Review* 7: 233-249.
- Demuth, K. and M. Johnson. 1989. Interaction between discourse functions and agreement in Setswana. *Journal of African Languages and Linguistics* 11: 21-35.
- Demuth, K. and S. Mmusi 1997. Presentational focus and thematic structure in comparative Bantu. *Journal of African Languages and Linguistics* 18: 1-19.
- Diesing, M. 1992. *Indefinites*. Cambridge, Mass.: MIT Press.
- Hyman, L. 2007. Focus marking in Aghem: Syntax or semantics? Manuscript, University of Berkeley.
- Hyman, L. and M. Polinsky. 2007. Focus in Aghem. In L. Downing and S. Zerbian (eds). *Focus in African Languages*. Berlin: Mouton de Gruyter.
- Kallulli, D. 2000. Direct object clitic doubling in Albanian and Greek. In F. Beukema and M. den Dikken (eds). *Clitic phenomena in European languages*. Amsterdam: John Benjamins. pp. 209-248.
- Kayne, R. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.

- Kimenyi, A. 1980. *A relational grammar of Kinyarwanda*. Berkeley: University of California Press.
- Letsholo, R. 2004. Clausal and DP-internal agreement in Ikalanga. *Studies in African Linguistics* 33(1): 91-127.
- Manzini, R. and L. M. Savoia. 2002. Parameters of subject inflection in Italian dialects. In P. Svenonius (ed). *Subjects, expletives, and the EPP*. Oxford: Oxford University Press. pp. 157-199.
- Marten, L. 2000. Agreement with conjoined noun phrases in Swahili. *Afrikanistische Arbeitspapiere* 64. *Swahili Forum VII*: 75-96.
- Maxwell, E. 1981. Question strategies and hierarchies of grammatical relations in Kinyarwanda. In *Proceedings of the 7th Annual Meeting of the Berkley Linguistics Society*: 166-177.
- McGinnis, M. 2001. Variation in the phase structure of applicatives. In P. Pica and J. Rooryck (eds). *Linguistic variation yearbook* 1: 101-142.
- Miyagawa, S. 2005. On the EPP. In M. McGinnis and N. Richards (eds). *Perspective on phases. MIT Working Papers in Linguistics*. pp. 201-236.
- Muriungi, P. 2005. Wh-questions in Kitharaka. *Studies in African linguistics* 34(1): 43-104.
- Murphy, L. 1997. Agreement as non-directional: An approach to Bantu concord. In R. K. Herbert (ed). *African linguistics at the crossroads*. Köln: Rüdiger Köppe Verlag. pp. 221-237.
- Ndayiragije, J. 1999. Checking economy. *Linguistic Inquiry* 30(3): 399-444.
- Postal, P. M. 1969. On so-called "pronouns" in English. In D.A. Reibel and S.A. Schane (eds). *Modern studies in English*. Englewood Cliffs: Prentice-Hall. pp. 201-224.
- Ross, J.R. 1967. Constraints on variables in syntax. Doctoral dissertation, MIT.
- Sabel, J. 1998. *Principles and parameters of wh-movement*. Habilitationsschrift, University of Frankfurt.
- Sabel, J. 2000. Partial wh-movement and the typology of wh-questions. In U. Lutz, G. Müller and A von Stechow (eds). *Wh-scope marking*. Amsterdam: John Benjamins. pp. 409-446.
- Sabel, J. and J. Zeller. 2006. Wh-question formation in Nguni. In J. Mugane, J. Hutchison and D. Worman (eds). *African languages and linguistics in broad perspective. Selected Proceedings of the 35th Annual Conference of African Linguistics, Harvard, Cambridge*. Somerville: Cascadilla Proceedings Press. pp. 271-283.

- Samek-Lodovici, V. 2002. Agreement impoverishment under subject inversion – A crosslinguistic analysis. In G. Fanselow and C. Féry (eds). *Resolving conflicts in grammar. Linguistische Berichte Sonderheft 11*: 49-82.
- Schneider-Zioga, P. 2007. Anti-agreement, anti-locality and minimality: The syntax of dislocated subjects. *Natural Language and Linguistic Theory* 25(2): 403-446.
- Selkirk, E. 1984. *Phonology and syntax: The relation between sound and structure*. Cambridge, Mass: MIT Press.
- Uriagereka, J. 1995. Aspects of the syntax of clitic placement in Western Romance. *Linguistic Inquiry* 26: 79-123.
- Van der Spuy, A. 1993. Dislocated noun phrases in Nguni. *Lingua* 90: 335-355.
- Van der Spuy, A. 2001. *Grammatical structure and Zulu morphology*. Doctoral dissertation, University of the Witwatersrand, Johannesburg.
- Young, R. 2005. Bantu Comitative and the E-type pronoun. Manuscript, Cornell University.
- Zerbian, S. 2005. Impersonal constructions in Northern Sotho. In B. Lepota and J. Geldenhuys (eds). *25 years of applied linguistics in Southern Africa: Themes and trends in Southern African linguistics*. Pretoria: University of Pretoria. pp. 198-212.
- Zerbian, S. 2006a. Expression of information structure in the Bantu language Northern Sotho. Doctoral dissertation, *Zentrum für Allgemeine Sprachwissenschaft*, Berlin.
- Zerbian, S. 2006b. Inversion structure in Northern Sotho. *Southern African Linguistics and Applied Language Studies* 24(3): 361-376.