

Object marking in Zulu*

Jochen Zeller

Linguistics Programme, School of Arts, University of KwaZulu-Natal, Durban
King George V Avenue, Durban 4041
zeller@ukzn.ac.za

June 2012

Abstract

I examine object marking in the Nguni language Zulu, focussing specifically on those properties that are subject to micro-parametric variation within the Bantu family. This includes the occurrence of object markers in object relative clauses and in double object constructions, and the correlation between object marking and dislocation. I also address the extent to which my findings support either a pronoun- or an object agreement-analysis of object markers. My results provide support for the idea that object markers in Zulu are in the process of changing from pronominal clitics into agreement markers.

1 Introduction

Like all Bantu languages, Zulu (Nguni; S 42) allows for an object argument to be marked morphologically on the verb. The object marker, which is prefixed to the verb root in Zulu, can co-occur with the corresponding object-DP, and agrees with it in noun class:¹

- (1) a. A-ba-ntwana ba-ya-si-thand-a *lesi si-kole.*
AUG-2-child SM2-DIS-OM7-like-FV DEM7 7-school
'The children like this school.'
- b. A-ba-ntwana ba-ya-si-thand-a.
AUG-2-child SM2-DIS-OM7-like-FV
'The children like it.'

Numerous studies of object marking have revealed interesting differences regarding the realisation of preverbal object markers in Bantu languages. These differences are discussed in Marten & Kula (this volume; henceforth M&K), who identify a number of micro-parameters that determine cross-Bantu variation. In this paper, I examine object marking in Zulu, focussing mainly on how the micro-parameters proposed in M&K's study are set in this language. My paper is an attempt to provide a succinct, but relatively comprehensive, overview of the most important empirical properties of object marking in Zulu, and to interrogate their relevance for a theoretical analysis of this phenomenon.

The basic empirical facts are presented in the next seven sections of this paper. I then discuss the data in light of the question whether the object marker in Zulu is an agreement morpheme or a pronoun. The conclusion I draw from this discussion is that the object marker in Zulu is in the process of changing from a pronoun to an agreement marker, and therefore synchronically shows properties of both.

2 The number of object markers

The first parameter discussed in M&K that I focus on here concerns the number of object markers that can be attached to a verb in a given Bantu language. While languages such as Kinyarwanda, Kichaga or Tswana allow for two or more object markers to be part of the verb stem, only one object marker is possible in Zulu:

- (2) a. U-John u-nik-e a-ba-ntwana i-zi-ncwadi
AUG-1a.John SM1-give-PAST AUG-2-child AUG-10-book
'John gave books to the children.'
- b. *U-John u-ba-zi-nik-il-e.
AUG-1a.John SM1-OM2-OM10-give-DIS-PAST
- c. *U-John u-zi-ba-nik-il-e.
AUG-1a.John SM1-OM10-OM2-give-DIS-PAST
- d. U-John u-ba-nik-e zona.
AUG-1a.John SM1-OM2-give-PAST PRON10
'John gave them to them'
- e. U-John u-zi-nik-e bona.
AUG-1a.John SM1-OM10-give-PAST PRON2
'John gave them to them.'

As (2) shows, if both objects of a ditransitive verb are pronominalised in Zulu, only one of them can be realised as an object marker. The other object must be a strong (so-called "absolute") pronoun, which occupies the same syntactic position as an ordinary object-DP.

3 Locative object markers

A second parameter discussed in M&K determines whether a Bantu language has object markers for locative objects. While this is the case in languages such as Herero, Nsenga or Bemba (see e.g. Riedel & Marten, this volume), Zulu does not have locative object markers:

- (3) I-zi-ngane zi-ka-John zi-hlal-a kwa-Zulu.
AUG-10-child POSS10-1a-1a.John SM10-live-FV LOC17-Zulu
'John's children live in Zululand.'
- a. *U-John u-ya-jabul-a ukuthi zi-ya-ku-hlal-a.
AUG-1a.John SM1-DIS-be.happy-FV that SM10-DIS-OM17-live-FV
- b. U-John u-ya-jabul-a ukuthi zi-hlal-a khona.
AUG-1a.John SM1-DIS-be.happy-FV that SM10-live-FV PRON17
'John is happy that they live there.'

(3a) shows that reference to the location introduced in the first sentence cannot be expressed by using a (locative) class 17 object marker in the second sentence. However,

pronominal reference to this location can be expressed by means of the absolute pronoun *khona* in (3b).

4 Object markers and resumption: relative clauses

The availability of object markers in relative clauses is a third parameter identified by M&K. In Zulu object relative clauses, the head noun must be resumed by an object marker which agrees with its antecedent in noun class (Poulos 1982; Zeller 2006):

- (4) a. I-kati [u-m-fana a-li-theng-il-e] li-ya-gul-a.
 AUG-5.cat AUG-1-boy REL.SM1-OM5-buy-DIS-PAST SM5-DIS-be.sick-FV
 'The cat which the boy bought is ill.'
 b. *I-kati [u-m-fana a-theng-il-e] li-ya-gul-a.
 AUG-5.cat AUG-1-boy REL.SM1-buy-DIS-PAST SM5-DIS-be.sick-FV

In this respect, Zulu differs from languages such as Kinyarwanda and Lozi, which do not allow resumptive object markers to occur in relative clauses. Because object marking is obligatory in object relatives, Zulu is also different from languages like Swahili and Sambia, which allow, but do not require, an object marker in object relatives (see Henderson 2006; M&K; Riedel 2009).

Example (5) shows that it is not possible to use a resumptive strong pronoun instead of an object marker in Zulu object relatives with transitive verbs:

- (5) *I-kati [u-m-fana a-theng-e lona] li-ya-gul-a.
 AUG-5.cat AUG-1-boy REL.SM1-buy-PAST PRON5 SM5-DIS-be.sick-FV
 intended: 'The cat which the boy bought is ill.'

However, since Zulu verbs can only accommodate one object marker, and resumption is obligatory in relative clauses, pronominalisation of a non-extracted object in a ditransitive relative clause licenses the use of a strong pronoun, (6):

- (6) Y-i-ni [o-nga-yi-tshel-a mina]?
 COP-AUG-9.what REL.2S-can-OM9-tell-FV PRON.1S
 'What can you tell me?'

(6) is an object question, expressed by means of a cleft construction in which the class 9 *wh*-phrase *ini*, 'what', is modified by a relative clause (cf. Sabel & Zeller 2006). The resumptive object marker corresponds to the relativised direct object; the non-extracted indirect object is the absolute pronoun *mina*. Notably, the object question in (6) can also be expressed as in (7):

- (7) Y-i-ni [o-nga-ngi-tshel-a yona]?
 COP- AUG-9.what REL.2S-can-OM.1S-tell-FV PRON9
 'What can you tell me?'

In (7), the object marker refers to the non-extracted indirect object, and it is the strong pronoun which agrees with the extracted direct object. This shows that in Zulu, absolute pronouns can act as resumptive elements in object relative clauses when the use of a resumptive object marker is blocked for independent reasons.

5 Co-occurrence of object marker and object

A fourth parameter discussed in M&K determines if, and under which conditions, an object marker can co-occur with a corresponding object that follows the verb.² With respect to this parameter, three types of language can be distinguished. First, there are Bantu languages in which an object-marked object can appear in the same position as an unmarked object, i.e. in the verbal complement-position inside the VP. In Swahili and Bemba, for example, this possibility exists for all objects of monotransitive sentences (cf. M&K; Riedel 2009). In a second type of language, the object marker cannot co-occur with a postverbal object at all. Languages of this type include Kinande (Baker 2008), Herero (M&K), Kinyarwanda (Kimenyi 1976), Lingala (Henderson 2006) and Lubukusu (Diercks & Sikuku 2011).³ In a third type of language, the object marker and the object-DP can co-occur, but only if the object is right-dislocated. As I show now, Zulu belongs to the third type of language.

5.1 Object marking and right dislocation

In Zulu, an object-marked object typically cannot appear in the same position as an unmarked object. For example, the object-DP *izitshudeni*, 'students', in (8) can no longer precede a "low" adverb such as *kaningi*, 'often', when it is object-marked:

- (8) a. Si-bon-e i-zi-tshudeni kaningi.
 1P-see-PAST AUG-8-student often
 b. *Si-zi-bon-e i-zi-tshudeni kaningi.
 1P-OM8-see-PAST AUG-8-student often
 c. Si-zi-bon-e kaningi i-zi-tshudeni.
 1P-OM8-see-PAST often AUG-8-student
 'We saw the students often.'

[Van der Spuy 1993: 346]

With ditransitive verbs, it is generally not possible to maintain the word order IO>DO (which is the unmarked order in Zulu as well as in other Bantu languages) when the indirect object is object-marked. Rather, the indirect object must now follow the direct object (see Adams 2010; Bosch 1985):

- (9) a. U-John u-nik-a a-ba-ntwana i-mali. Io>Do
 AUG-1a.John SM1-give-FV AUG-2-child AUG-9.money
 'John is giving the children money.'
 b. *U-John u-ba-nik-a a-ba-ntwana i-mali. *Io>Do
 AUG-1a.John SM1-OM2-give-FV AUG-2-child AUG-9.money

- c. U-John u-ba-nik-a i-mali a-ba-ntwana. Do>Io
 AUG-1a.John SM1-OM2-give-FV AUG-9.money AUG-2-child
 'John is giving the children money.'

Evidence that object-marked DPs in Zulu are not in their base position is also provided by the verbal morphology. When a monotransitive verb carries an object marker and is followed by the corresponding object, the verb must appear in the so-called disjoint verb form, which is marked by the affixes *-ya-* in the present tense and *-il-* in the recent past in Zulu:

- (10) a. Ngi-theng-a le moto.
 1S-buy-FV DEM9 9.car
 'I'm buying this car.'
 b. *Ngi-yi-theng-a le moto.
 1S-OM9-buy-FV DEM9 9.car
 c. Ngi-ya-yi-theng-a le moto.
 1S-DIS-OM9-buy-FV DEM9 9.car
 'I'm buying (it) this car.'

It has by now become a standard assumption that the conjoint (short) vs. disjoint (long) verb form alternation in Zulu is an indicator of constituency. The conjoint form is only possible if there is another overt constituent in the vP. Arguments for this assumption are presented in Adams (2010), Buell (2005, 2006, 2008) and Van der Spuy (1993). For reasons of space, I do not repeat these arguments here, but the implications for sentences with object-marked DPs are clear: the ungrammaticality of the short form in (10b) entails that when the object marker is attached to the verb, the corresponding postverbal object is not in its base position, but has been dislocated to a position outside of the VP.⁴

Finally, phonological facts also support a dislocation analysis. In examples such as (10c), where the object is doubled by an object marker, the penultimate vowel of the verb preceding the object-DP is lengthened, signaling a prosodic phrase boundary between the verb and its object (cf. Buell 2005; Cheng & Downing 2009; Van der Spuy 1993). In contrast, there is no prosodic break between the verb and the unmarked object complement in examples such as (10a). Assuming that this prosodic boundary also corresponds to a syntactic phrase boundary, this is evidence that object-marked objects in Zulu are dislocated.

While the above data provide consistent evidence for a dislocation analysis, it needs to be mentioned that the judgments regarding the sentences in (8b) and (9b) are far from robust. Double-object constructions such as (9b), in which an object-marked indirect object precedes the direct object, are particularly prone to speaker variation (see Bresnan & Mchombo 1987; Henderson 2006; Riedel 2009 for some discussion of similar facts reported for the Bantu language Chichewa). Although the word order in (9c) is generally preferred, there are many Zulu speakers who find examples such as (9b) at least marginally acceptable (see also Adams 2010, who marks Zulu data comparable to (9b) as "??"). Generally, judgments about the IO>DO word order seem to improve when the object-marked indirect object-DP is non-complex; sentence (9b) above and (11) and (12) below, for example, were tolerated by more of my informants than (13), which was generally rejected. In Visser (1986), sentences from Xhosa similar to (9b) are reported to

be grammatical, which suggests that there may be systematic differences between members of the Nguni group (Marianna Visser p.c.):

- (11) (*Ngi-yi-theng-el-e i-nja u-bisi.
 1S-OM9-buy-APPL-PAST AUG-9.dog AUG-11.milk
 'I bought milk for the dog/a dog.'
- (12) (*U-Langa u-m-phek-el-a u-mama i-nyama.
 AUG-1a.Langa SM1-OM1-cook-APPL-FV AUG-1a.mother AUG-9.meat
 'Langa is cooking meat for mother.'
- (13) *Ngi-m-theng-el-a u-m-ngane wa-mi le moto namhlanje.
 1S-OM1-buy-APPL-FV AUG-1-friend POSS1-1S DEM9 9.car today
 'I'm buying this car for my friend today.'

It is noteworthy that, in contrast to the relative acceptability of at least some double object constructions with object-marked indirect objects and IO>DO word order, no comparable speaker variation is observed with monotransitive sentences in which an object-marked DP follows the short form of the verb – constructions such as (10b) are always judged as ungrammatical.

The syntactic position of right-dislocated objects in Zulu seems to be rather low in the structure. This is illustrated by (14), which shows that an object-marked right-dislocated DP is semantically still in the scope of negation (see also Buell 2008):

- (14) A-ka-ku-theng-anga konke u-ku-dla. NEG > ∇
 NEG-SM1-OM15-buy-NEG all15 AUG-15-food
 'He did not buy all the food (i.e. he may have bought some).'

In (14), the quantified object is object-marked and therefore must have been right-dislocated (negated verbs in Zulu do not show the conjoint-disjoint alternation). Importantly, negation still takes wide scope over the quantifier, which suggests that the position of the right-dislocated DP is below NegP in the syntax.

Furthermore, a dislocated object can appear to the left of a temporal adverb like *namhlanje*, 'today' (see also Cheng & Downing 2009), (15a). Although dislocation is also possible to a position after the adverb, (15b), the position before the temporal adverb is usually preferred:

- (15) a. Ngi-m-theng-el-a le moto u-m-ngane wa-mi namhlanje.
 1S-OM1-buy-APPL-FV DEM9 9.car AUG-1-friend POSS1-1S today
 'I'm buying this car for my friend today.'
- b. Ngi-m-theng-el-a le moto namhlanje u-m-ngane wa-mi.
 1S-OM1-buy-APPL-FV DEM9 9.car today AUG-1-friend POSS1-1S
 'I'm buying this car today for my friend.'

Similarly, the adverb *kakhulu*, 'a lot', can both follow and precede a dislocated object in a transitive construction, (16). There seems to be no preference whether this type of adverb is placed before or after the dislocated object:

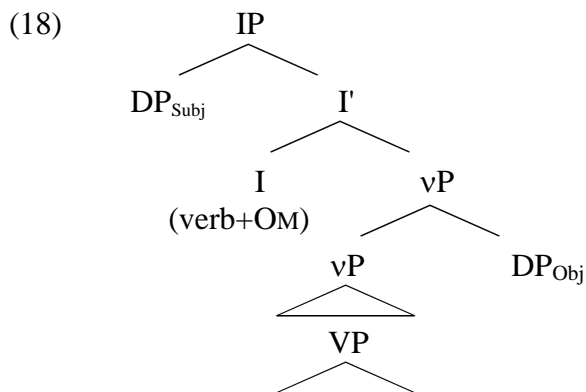
- (16) a. U-John u-ya-zi-siz-a i-zi-ngane za-khe kakhulu.
 AUG-1a.John SM1-DIS-OM10-help-FV AUG-10-child POSS10-1 a.lot
 b. U-John u-ya-zi-siz-a kakhulu i-zi-ngane za-khe .
 AUG-1a.John SM1-DIS-OM10-help-FV a.lot AUG-10-child POSS10-1
 'John helps his children a lot.'

Adverbs such as *kaningi*, 'often', or *kahle*, 'well', are normally generated very low in the structure (presumably as VP-ad adjuncts), and combining these adverbs with the long form of the verb therefore produces marked results for most speakers. However, some speakers accept constructions in which a "low" adverb has been dislocated to a VP-external position:

- (17) a. ?Si-zi-bon-il-e kaningi i-zi-tshudeni.
 1P-OM10-see-DIS-PAST often AUG-8-student
 b. ?Si-zi-bon-il-e i-zi-tshudeni kaningi.
 1P-OM10-see-DIS-PAST AUG-8-student often
 'We saw the students often.'
 c. ?Si-zi-bon-il-e i-zi-tshudeni kaningi namhlanje.
 1P-OM10-see-DIS-PAST AUG-8-student often today
 'We saw the students often today.'
 d. *Si-zi-bon-il-e i-zi-tshudeni namhlanje kaningi.

The verb in (17) is in the long form, which means that both the object and the adverb are outside the vP. To the extent that this is possible, the adverb and the object can appear in either order. However, when outside the vP, a "low" adverb must still appear to the left of a temporal adverb, (17c, d).

Based on these facts, I adopt the proposal made in Cheng & Downing (2009), who argue that right-dislocated arguments in Zulu are right-adjoined to vP (which in their theory also explains the prosodic phrase break before the dislocated object):



In (18), the dislocated object is c-commanded by negation (assuming that the category Neg is part of the I-domain), and appears to the left of temporal adverbs, which are adjoined higher in the tree. Adverbs like *kakhulu*, 'a lot', are right-adjoined to vP, which explains that dislocated objects can appear on either side of these adverbs. Note that vP-

adjuncts are not dominated by both vP-segments and count as being "outside" the vP with respect to the conjoint-disjoint alternation. Therefore, the verb must be in the disjoint form when no other constituent is vP-internal. In contrast, "low" adverbs like *kaniŋgi*, 'often', are VP-adjuncts; they require the short verb form and precede dislocated objects (see (8c)). However, speakers who accept data such as (17a-c) seem to be able to dislocate these adverbs and also adjoin them to vP.⁵

5.2 Dislocation of two objects

To the best of my knowledge, Adams (2010) was the first to present an analysis of Zulu data such as the following:

- (19) a. Ngi-ya-m-theng-el-a u-Sipho u-bisi.
 1S-DIS-OM1-buy-APPL-FV AUG-1a.Sipho AUG-11.milk
 b. Ngi-ya-m-theng-el-a u-bisi u-Sipho.
 1S-DIS-OM1-buy-APPL-FV AUG-11.milk AUG-1a.Sipho
 'I am buying milk for Sipho.'
- (20) a. *Ngi-ya-lu-theng-el-a u-Sipho u-bisi.
 1S-DIS-OM11-buy-APPL-FV AUG-1a.Sipho AUG-11.milk
 b. *Ngi-ya-lu-theng-el-a u-bisi u-Sipho.
 1S-DIS-OM11-buy-APPL-FV AUG-11.milk AUG-1a.Sipho

The verbs in (19) and (20) are in the disjoint form, which means that both objects are outside VP and adjoined to vP. In (19), the object marker corresponds to the indirect object, and the construction is grammatical, with the dislocated objects appearing in either order. In contrast, dislocation of both objects is not possible if the direct object is object-marked, (20).

According to Adams (2010), an object-DP can only be dislocated in Zulu if there is a corresponding object marker. She therefore suggests that in examples such as (19a) and (19b), there are indeed two object markers attached to the verb, but that language-specific morphophonological rules prohibit the overt realisation of more than one object marker in Zulu. Instead, Adams argues, if there are two object markers in Zulu, only the one corresponding to the indirect object can be pronounced, while the direct object marker has to be phonetically null.

However, Adams's account makes the wrong predictions about object relative clauses with ditransitive verbs in which the non-extracted indirect object is realised as an object marker (see section 4). It would follow from Adams's account that in this case, a second, phonetically null direct object marker can be used to resume the relativised object. However, (21) shows that this is not possible:⁶

- (21) *Y-i-ni o-nga-ngi-∅-tshel-a-yo?
 COP-AUG-9.what REL.2S-can-OM.1S-OM9-tell-FV-Rs
 'What can you tell me?'

Adams's account incorrectly predicts (21) to be grammatical; it cannot explain that resumption in Zulu must be overtly marked in relative clauses and that therefore, a strong

pronoun is required in constructions such as (21) to resume the relative operator (see (7) above).

The conclusion to be drawn from the data in (19)-(21) is therefore that the presence of the indirect object marker in ditransitive constructions in Zulu licenses the dislocation of both objects. This fact explains an observation made in Bosch (1985), who notes that the order IO>DO with an object-marked indirect object is acceptable in subjunctives:

- (22) Hayi! mama ni-nga-lokoth-i ni-m-tshel-e u-Fikile le-ndaba.
 No 1a.mother 2P-NEG-dare-NEG 2P-OM1-tell-SJ AUG-1a.Fikile DEM9-9.story
 'No! Mother, don't you dare tell Fikile this story.'

[Bosch 1985: 85]

- (23) Ku-fanele ukuthi ngi-m-theng-el-e u-m-ngane wa-mi le moto.
 EXPL17-must that 1S-OM1-buy-APPL-SJ AUG-1-friend POSS1-1S DEM9 9.car
 'I must buy this car for my friend.'

- (24) Izolo ngi-cishe ng-a-m-theng-el-a u-m-ngane wa-mi le moto.
 yesterday 1S-almost 1S-PSJ-OM1-buy-APPL-FV AUG-1-friend POSS1-1S DEM9 9.car
 'Yesterday I almost bought this car for my friend.'

(23) and (24) minimally contrast with example (13) above, which is in the indicative, and where the order IO>DO with an object-marked indirect object produced ungrammaticality.

The subjunctive is not the only type of sentence which licenses the IO>DO word order with an object-marked indirect object. Adams (2010) shows that the same possibility exists in ditransitive sentences in the future and remote past tense, and (25) demonstrates the same for the so-called participial mood:

- (25) Ng-a-thuk-a u-baba e-m-theng-el-a
 1S-PAST-be.shocked AUG-1a.father PRT1-OM1-buy-APPL-FV
 u-m-ngane wa-mi le moto.
 AUG-1-friend POSS1-1S DEM9 9.car
 'I was shocked when father bought my friend this car.'

As argued by Adams (2010), the contrast illustrated here can be explained in light of the data in (19). As noted above, Zulu verbs only show the conjoint-disjoint verb form alternation in the present tense and recent past. The morphology of other tenses and moods does not provide information about whether material that follows the verb is inside the VP. The grammaticality of examples such as (22)-(25) can thus be explained if it is assumed that *both* postverbal objects are dislocated. As in (19), this "double-dislocation" is licensed by the occurrence of the object marker corresponding to the indirect object. In contrast, the conjoint verb form in (13) above signals unambiguously that the indirect object is inside the VP, and the corresponding object marker therefore produces an unacceptable result.

The hypothesis that both objects in examples such as (23) are dislocated is confirmed by the placement of the interrogative particle *na*:

- (26) Ku-fanele ngi-m-theng-el-e na u-Sipho u-bisi?
 EXPL17-must 1S-OM1-buy-APPL-SJ Q AUG-1a.Sipho AUG-11.milk
 'Am I supposed to buy milk for Sipho?'

Interrogative markers cannot appear VP-internally in Zulu (cf. Buell 2005), but they can intervene between the verb and the following objects in (26). This shows that the two DPs that follow *na* in (26) are both dislocated and appear outside the VP.

6 The object marker and definiteness/specificity

The fifth parameter discussed in M&K determines whether an object marker in a given Bantu language is ever required to co-occur with certain types of objects. In Swahili, for example, object markers are obligatory with all animate objects. With inanimate objects, the object marker is optional but, when present, yields a definite or specific interpretation of the object-DP (Keach 1995).

In Zulu, animate, inanimate, definite and specific object-DPs can all appear with, but never require, the object marker (but see note 7). However, Zulu seems similar to Swahili with respect to the semantic effects of object marking. If the object marker co-occurs with a DP, it typically yields a definite reading of the object. Consequently, inherently indefinite objects *cannot* appear with an object marker (see Adams 2010):

- (27) a. A-ngi-(*m)-thand-i mu-ntu?
 NEG-1S-OM1-like-NEG 1-person
 'I don't like anyone.'
 b. U-zo-(*m)-qabul-a bani?
 SM1-FUT-OM1-kiss-FV 1a.who
 'Who will he kiss?'

[Adams 2010: 42-3]

Zulu allows for objects in the scope of negation to be realised without an initial vowel (the augment); the augmentless object in (27a) receives an indefinite interpretation and can be interpreted as an NPI. However, the NPI is incompatible with an object marker. The object-wh-phrase in (27b) is also inherently indefinite, and consequently, the object marker cannot appear with this object either.

However, there are contexts in which an object marker can co-occur with an indefinite object in Zulu. Although (28a) is the "textbook" way to express negation with an indefinite and non-specific object, many speakers actually prefer to express this meaning as in (28b):

- (28) a. A-ngi-bon-anga zi-ndlovu.
 NEG-1S-see-NEG 10-elephant
 'I didn't see any elephants.'

- b. A-*ngi-zi-bon-anga* *i-zi-ndlovu*.
 NEG-1S-OM10-see-NEG AUG-10-elephant
 (i) 'I didn't see the elephants.'
 (ii) 'I didn't see (any) elephants.'

In (28a), the indefinite object noun has lost its initial vowel. In (28b), however, the object has retained the augment, and in this case, the corresponding object marker is attached to the verb stem.⁷ The object in (28b) can be interpreted as definite, (i), but crucially, for the majority of my informants, (28b) was the also the preferred way to express the meaning in (ii), with an indefinite object. Constructions such as (28b) hence show that the object marker in Zulu is compatible with indefinite objects in certain contexts.

A second type of construction in which an object marker is compatible with an indefinite interpretation is ellipsis, as observed in Buell (2005) ((29) is adopted, with minor modifications, from Buell 2005: 52):

- (29) *Ngi-dl-e* *a-ma-aphula ama-bili*, *naye u-Sipho* *u-wa-dl-il-e*.
 1S-eat-PAST AUG-6-apple ADJ6-two and AUG-1a.Sipho SM1-OM6-eat-DIS-PAST
 (i) 'I ate two apples, and Sipho ate them, too.'
 (ii) 'I ate two apples, and so did Sipho.'

As noted in Adams (2010: 40f.), (29) is compatible with the (pragmatically deviant) reading (i), according to which Sipho ate the same two apples as the speaker. However, all informants I consulted can also interpret (29) as meaning that Sipho ate two different apples, (ii).⁸ According to Buell (2005), this reading corresponds to a structure in which the object marker in the second conjunct doubles the indefinite DP object *ama-aphula amabili*, 'two apples', which has been elided in (29) under identity with the object in the first conjunct.

7 (A)symmetries in double object constructions

The final parameter discussed in M&K that I examine here for Zulu relates to object marking in double-object constructions. In general, either object of a ditransitive construction in Zulu can be object-marked (Adams 2010):

- (30) a. *U-Langa* *u-phek-el-a* *u-mama* *i-nyama*.
 AUG-1a.Langa SM1-cook-APPL-FV AUG-1a.mother AUG-9.meat
 'Langa is cooking meat for mother.'
 b. *U-Langa* *u-m-phek-el-a* *i-nyama* (*u-mama*). OM = IO
 AUG-1a.Langa SM1-OM1-cook-APPL-FV AUG-9.meat AUG-1a.mother
 'Langa is cooking meat for her (mother).'
 c. *U-Langa* *u-yi-phek-el-a* *u-mama* (*i-nyama*). OM = DO
 AUG-1a.Langa SM1-OM9-cook-APPL-FV AUG-1a.mother AUG-9.meat
 'Langa is cooking it for mother (the meat).'

Zulu hence seems to be a "symmetrical" language with respect to object marking in double object constructions (cf. Bresnan & Moshi 1990). However, there are contexts and

constructions in which this symmetry disappears. I discuss these in the following subsections.

7.1 Animacy

The data in (30) are typically interpreted in terms of grammatical function, i.e. (30) is consistent with the assumption that both the indirect and the direct object in Zulu can be realised or doubled by an object marker. But note that the indirect object in (30) is animate, while the direct object is inanimate. Importantly, when this animacy relation is reversed, Zulu double object constructions are no longer symmetrical:

- (31) a. ??Ngi-thand-el-a u-John u-bu-qotho ba-khe.
 1S-like-APPL-FV AUG-1a.John AUG-14-honesty POSS14-1
 'I like John for his honesty.'
- b. ??Ngi-thand-el-a u-bu-qotho ba-khe u-John.
 1S-like-APPL-FV AUG-14-honesty POSS14-1 AUG-1a.John
 'I like John for his honesty.'
- c. *Ngi-bu-thand-el-a u-John u-bu-qotho ba-khe. OM = IO
 1S-OM14-like-APPL-FV AUG-1a.John AUG-14-honesty POSS14-1
 'I like John for it, his honesty.'
- d. Ngi-m-thand-el-a u-bu-qotho ba-khe u-John. OM = DO
 1S-OM1-like-APPL-FV AUG-14-honesty POSS14-1 AUG-1a.John
 'I like him for his honesty, John.'

(31) is a reason applicative in which the indirect applied object (the DP introduced semantically by the applicative morpheme) is inanimate, and the direct object (the original theme argument of the verb) is animate. (31a) and (31b) show that without object marking and dislocation, neither the order IO>DO nor the order DO>IO is completely acceptable (for some speakers, both (31a) and (31b) are ungrammatical). This suggests that reason applicatives in Zulu do not tolerate both an animate direct object and an inanimate applied object in VP-internal position, possibly because of the conflicting ordering requirements imposed by animacy and grammatical function ([+ animate]> [- animate] vs. IO>DO). The "solution" is to object-mark one object and to remove it from the VP, but this option exists only for the animate direct object, (31d). In contrast, object marking and dislocation of an inanimate indirect object is not possible, (31c).

It is difficult to construct well-formed examples with inanimate benefactive applied objects in Zulu, but the construction in (32) is marginally acceptable for some speakers. However, even for these speakers, object marking of the inanimate object is impossible:

- (32) a. ??U-Sipho u-nik-el-a i-ngane i-si-zwe.
 AUG-1a.Sipho SM1-give-APPL-FV AUG-9.child AUG-7-nation
- b. ??U-Sipho u-nik-el-a i-si-zwe i-ngane.
 AUG-1a.Sipho1a SM1-give-APPL-FV AUG-7-nation AUG-9.child
 'Sipho gives a child to the nation.'
- c. *U-Sipho u-si-nik-el-a i-ngane i-si-zwe. OM = IO
 AUG-1a.Sipho SM1-OM7-give-APPL-FV AUG-9.child AUG-7-nation
 'Sipho gives a child to it, the nation.'

- d. ??U-Sipho u-yi-nik-el-a i-si-zwe i-ngane. OM = DO
 AUG-1a.Sipho SM1-OM9-give-APPL-FV AUG-7-nation AUG-9.child
 'Sipho gives it to the nation, the child.'

It is well-known that semantic properties like animacy influence an object's ability to undergo operations such as object marking or passivisation in Bantu languages. For example, Morolong & Hyman (1977) and Hyman & Duranti (1982) observe that in Sesotho benefactive applicatives, an inanimate direct object can be object-marked when the indirect object is animate, but an inanimate indirect object cannot be object-marked when the direct object is animate. The contrast between (30c) and (31c)/(32c) shows that the same asymmetry is attested in Zulu. The grammatical function of an object (or the syntactic position associated with this function) is not sufficient to determine whether or not object marking is possible.

7.2 *Inalienable possession*

A second context in which object marking in Zulu is asymmetrical is discussed in Bosch (1985) for Zulu (based on similar data presented in Hyman & Duranti 1982 for Haya and Sesotho). Bosch (1985: 87) shows that in double object constructions expressing inalienable possession, the direct object (typically a body part of the indirect object) cannot be object-marked:

- (33) a. I-nkosi i-khiph-e i-zi-nhloli a-m-ehlo.
 AUG-9.chief SM9-take.out-PAST AUG-10-spy AUG-6-eye
 'The chief took out the eyes of the spies.'
- b. I-nkosi i-zi-khiph-e a-m-ehlo (i-zi-nhloli). OM = IO
 AUG-9.chief SM9-OM10-take.out-PAST AUG-6-eye AUG-10-spy
 'The chief took out their eyes (of the spies).'
- c. *?I-nkosi i-wa-khiph-e i-zi-nhloli (a-m-ehlo). OM = DO
 AUG-9.chief SM9-OM6-take.out- PAST AUG-10-spy AUG-6-eye
 'The chief took them out (the eyes) of the spies.'

(33) again demonstrates that grammatical function alone does not determine whether or not an object in a double object construction can be object-marked. Rather, the semantic relation between the two objects also plays a role in determining this possibility.

7.3 *Object marking in passives*

A well-known asymmetry regarding object marking is attested in passivised double object constructions in all Nguni languages (see Adams 2010 for Zulu; De Guzman 1987, Woolford 1995 for Swati; Visser 1986 for Xhosa). Ditransitive verbs in Nguni generally allow the passivisation of either object, (34a, 35a). However, while passivisation of the indirect object is compatible with object marking of the direct object, (34b), the opposite construction, in which the direct object has been promoted to subject position and the indirect object is realised as an object marker, is not possible, (35b):

- (34) a. U-mama u-phek-el-w-a i-nyama.
 AUG-1a.mother SM1-cook-APPL-PASS-FV AUG-9.meat
 lit. 'Mother is being cooked meat for.'
- b. U-mama u-ya-yi-phek-el-w-a (i-nyama).
 AUG-1a.mother SM1-DIS-OM9-cook-APPL-PASS-FV AUG-9.meat
 lit. 'Mother is it being cooked for (the meat).'
- (35) a. I-nyama i-phek-el-w-a u-mama.
 AUG-9.meat SM9-cook-APPL-PASS-FV AUG-1a.mother
 'Meat is being cooked for mother.'
- b. *I-nyama i-ya-m-phek-el-w-a (u-mama).
 AUG-9.meat SM9-DIS-OM1-cook-APPL-PASS-FV AUG-1a.mother
 intended: 'Meat is being cooked for her (mother).'

Bresnan & Moshi (1990: 154) note that the same contrast is found in the Bantu language Kichaga, but they claim that it disappears when both objects are inanimate. However, in Zulu, the contrast is still observed with two inanimate objects:⁹

- (36) Ngi-theng-el-a i-ndlu ya-mi i-fastela.
 1S-buy-APPL-FV AUG-9.house POSS9-1S AUG-5.window
 'I'm buying a window for my house.'
- (37) I-ndlu ya-mi i-ya-li-theng-el-w-a (i-fastela).
 AUG-9.house POSS9-1S SM9-DIS-OM5-buy-APPL-PASS-FV AUG-5.window
 lit. 'My house is it being bought for (the window).'
- (38) *I-fastela li-ya-yi-theng-el-w-a (i-ndlu ya-mi).
 AUG-5.window SM5-DIS-OM9-buy-APPL-PASS-FV AUG-9.house POSS9-1S
 'The window is being bought for it (my house).'

Bresnan & Moshi (1990) further state that in Kichaga, the contrast also disappears when both objects are [+human]. The judgments I collected for Zulu were mixed; for some speakers, the contrast was still observed, while other speakers accepted both combinations of object marking and passivisation with two human objects. Finally, I also tested examples with an inanimate indirect object and an animate direct object. Passivisation of the latter and object marking of the former produces ungrammaticality, which is expected, given that object marking of inanimate indirect objects is also impossible in active sentences with animate direct objects (see (31c) and (32c) above). Judgments regarding sentences with a passivised inanimate indirect object and an object-marked animate direct object were not consistent enough to draw robust conclusions (but see Hyman & Duranti 1982: 233 for the claim that passivisation of a less animate object rules out object marking of a more animate object in most Bantu languages).

8 Object marking in inversion constructions

In this section I want to highlight an aspect of object marking which is not addressed in M&K, presumably because it is not subject to parametric variation within the Bantu family. Nevertheless, I mention this point here, because it informs the debate about the nature of the object marker in Zulu, to which I turn in the next section.

Many Zulu speakers accept transitive expletive (and other inversion) constructions, in which the verb precedes both VP-internal argument DPs (see Buell 2005; Halpert 2011; Zeller forthcoming, among others), (39). Crucially, while an object-DP can be realised as a strong pronoun in a transitive inversion construction, object marking of the internal argument is not possible:

- (39) a. Ku-phek-a u-Langa yona.
EXPL17-cook-FV AUG-1a.Langa PRON9
'Langa is cooking it (e.g. the meat).'
- b. *Ku-(ya)-yi-pheka u-Langa.
EXPL17-(DIS)-OM9-cook-FV AUG-1a.Langa

(39) shows that there are specific syntactic contexts in which object pronouns are possible, but object markers are not. This observation is relevant for the question of whether object markers in Zulu should be analysed as pronominal clitics, to which I turn in the following section.

9 The nature of the object marker

A much-debated question in the Bantu literature is whether object markers in a given language are pronominal clitics or agreement markers (see e.g. Diercks & Sikuku 2011; Henderson 2006; Riedel 2009 for extensive discussion). The pronoun-analysis, adopted for Zulu in Van der Spuy (1993) and recently defended in Adams (2010), assumes that object markers are thematic arguments. This view entails that the co-occurrence of an object marker and a corresponding DP is a case of clitic doubling, or clitic (left-/right-) dislocation. The agreement analysis, which for Zulu is assumed by Buell (2005) and Henderson (2006), treats the object marker as an inflectional affix that expresses noun class agreement with a corresponding DP (a lexical argument DP, or a phonetically null pronoun *pro*). In this section, I compare the two competing analyses with reference to the empirical discussion presented in the preceding sections.

As noted in section 2, at most one object marker per verb is licensed in Zulu. This fact seems to derive more naturally from an agreement- than from a pronoun-analysis. Object agreement is a property typically associated with functional categories (such as *v*, *Agr-O* or *Asp*). While it can be argued that Zulu syntax includes only one functional projection that is responsible for agreement with object-DPs, it is not immediately clear which constraint would rule out the occurrence of multiple object markers in Zulu if these are pronominal clitics. The Romance and Slavic languages, for example, allow more than one object to be realised as a pronominal clitic, and if a Bantu language allows for more than one object marker to be attached to the verb, then this is often regarded as evidence that object markers in the language are pronouns (see e.g. Baker 2008; Henderson 2006).

The absence of locative object markers in Zulu (section 3) is also easier to explain from an agreement perspective. Since Zulu no longer has productive locative noun classes, there are no locative DPs, and there cannot be locative agreement (cf. Buell forthcoming and Marten 2010 for the view that locatives in Nguni are PPs). In contrast, since Zulu still has strong locative pronouns such as *khona*, 'there', which are fossilised pronominal forms of locative class 17, the question can be raised why pronominal locative clitics have not also survived in the language.

Section 4 showed that object markers are obligatory in Zulu object relative clauses and that this resumptive function can also be fulfilled by strong pronouns in certain constructions. At first sight, this parallel suggests that object markers are pronominal elements. However, the agreement-analysis of object markers is also compatible with the observation that Zulu object relatives require resumptive pronouns. The standard assumption in generative accounts which treat Bantu object markers as agreement morphemes is that in a sentence without an overt object-DP, the presence of an object marker signals agreement with the phonetically unrealised pronoun *pro*, which yields the pronominal interpretation associated with such sentences (see e.g. Baker 2008; Buell 2005; Henderson 2006). Since null arguments must be licensed by "strong" or "rich" agreement morphology (cf. Rizzi 1986; Taraldsen 1978), the object marker is obligatory with *pro*. The occurrence of object markers in object relatives therefore does not entail that the object markers themselves are resumptive pronouns. Instead, it could be that the extracted relative operator binds a resumptive *pro*, and that the object marker appears because agreement with *pro* is obligatory. In contexts where a resumptive *pro* is not possible, a (non-agreeing) strong pronoun must be chosen. That the use of resumptive object markers in relative clauses is compatible with an agreement analysis is independently confirmed by languages such as Smbaa and Swahili. In these languages, object marking is typically analysed as agreement (see e.g. Henderson 2006; Riedel 2009), but resumptive object markers are also licensed in object relative clauses.

The obligatory dislocation of object-marked object-DPs (discussed in section 5) provides perhaps the strongest argument for a pronoun-analysis. If object markers are pronominal objects with theta roles, no lexical DP is expected to be found in the corresponding argument position inside the VP. In contrast, it is not obvious why agreement with an *in situ* object should not be possible. One explanation that has been provided by proponents of an agreement analysis is that agreement between a functional category (such as Agr-O or Asp) and an object-DP requires the object to be in a specifier-head configuration with the head of this category (see e.g. Baker 2008; Buell 2005; Henderson 2006; Woolford 2000). In order to move to such a specifier position, the object would have to leave the VP. However, given that specifier positions are on the left, the Zulu word order facts discussed in section 5 do not follow straightforwardly from this type of analysis. For example, it was shown that the preferred word order in double object constructions with an object-marked indirect object is DO>IO. The verb in these constructions is still in the conjoint form, which shows that the direct object is inside the VP. However, this means that the indirect object cannot be located in a higher specifier position. Rather, I concluded in section 5 that dislocated object-DPs in Zulu are right-adjoined to vP. It is not clear how the dislocation of object-DPs to this position can be motivated in a theory which treats object markers as agreement morphemes.¹⁰

However, treating object markers in Zulu as pronouns also does not explain all the observations discussed in section 5. For example, it is not clear why it is possible for one pronominal clitic to license the dislocation of two object DPs (see section 5.2). Furthermore, recall that the requirement to dislocate an object-marked indirect object in double object constructions is not very strict for many speakers. As pointed out by Henderson (2006), this fact is problematic for a pronoun-analysis, which predicts that object-marked DPs can never occur in VP-internal position. A hypothesis consistent with these conflicting data is that Zulu object marking is currently undergoing a grammaticalisation process in which pronominal object markers are reanalysed as agreement markers. While obligatory right-dislocation still reflects their former status as pronouns, the (marginal) acceptability of some object-marked DPs in the verb's complement position may be a sign that their more recent function as agreement markers is being consolidated in the grammar of modern Zulu.

The idea that the system of object marking in Zulu is currently undergoing a change is also supported by the data discussed in section 6. It was shown that inherently indefinite objects such as NPIs or *wh*-phrases can never co-occur with an object marker, and this can be interpreted as evidence that object markers are pronouns, which are inherently definite (cf. Adams 2010). But definiteness and specificity are also typical properties of agreeing objects (see e.g. Riedel 2009), presumably because most object agreement systems are historically derived from topic-pronoun constructions. Furthermore, I noted that in negative sentences in Zulu, an indefinite interpretation of object-marked DPs is available for many speakers. This suggests that, at least in these constructions, the object marker no longer produces the semantic effects associated with pronouns. The same point can be made with respect to the ellipsis-data from Buell (2005), which provide another strong empirical argument for an agreement-analysis of the object marker (recall that the pragmatically unmarked interpretation of the ellipsis example in (29) above can only be construed if the elided object-DP in the second conjunct is interpreted indefinitely).

The properties of object marking in double-object constructions in Zulu (section 7) are difficult to interpret in the light of the agreement-pronoun dichotomy. Adams (2010) demonstrates that the asymmetries observed with object marking in passives (see section 7.3) can be explained by syntactic locality constraints if object markers are analysed as incorporated pronominal clitics which are base-generated in argument positions. However, it is not clear how the semantic effects discussed in section 7 can be incorporated into such an analysis. As the data have shown, whether or not an object can be object-marked depends not only on its grammatical function or syntactic position, but also on the semantic properties of, and the semantic relation between, both objects. An agreement-account may be better suited to capture these facts, perhaps by encoding semantic features such as animacy in the grammatical feature matrix associated with the categories that are involved in the agreement relation. However, the task of spelling out the details of such an account is certainly far from trivial.

Finally, the impossibility of object marking in inversion constructions (demonstrated in section 8) provides another argument for an agreement analysis. Since agreement is a formal relation between categories which depends on the syntactic context, it is not unexpected to find particular configurations (such as inversions) in which agreement can never be established. Whatever analysis explains why object agreement is ruled out in inversion constructions (see Zeller forthcoming for a proposal), it is not surprising that

the use of strong pronouns (which do not require object agreement) is still permissible in the same contexts. In contrast, the difference between the use of object markers and strong pronouns in inversion constructions is more difficult to explain in a theory which treats both kinds of elements as pronouns.¹¹

10 Conclusion

It is uncontroversial that object markers behave like agreement markers in some Bantu languages, but like pronominal clitics in others. However, most languages lie somewhere between the two opposite ends of the agreement-pronoun continuum, showing "mixed" properties, which perhaps reflect intermediate stages of a grammaticalisation process that turns pronominal object markers into agreement morphemes (cf. Henderson 2006). This paper has shown that Zulu is such a language. I demonstrated in section 9 that many of the empirical properties of Zulu discussed in sections 2-8 are consistent with an approach that treats object marking as a case of object agreement. However, I also noted that some aspects of object marking in Zulu, in particular the obligatory dislocation of object-marked DPs, do not follow straightforwardly from an agreement-approach, and rather seem to provide support for a pronoun-analysis.

Despite the existence of many Bantu languages in which object markers are neither prototypical agreement markers nor prototypical pronouns, the theoretical debate about object marking in Bantu is still characterised by a strict agreement marker vs. pronoun-dichotomy. Because of this dichotomy, the strongest arguments for one type of analysis are often provided by those properties of object markers which *cannot* be explained easily by the competing analysis. The problem with this method is that reducing the theoretical analysis to these two possibilities may prevent a better understanding of the true nature of object marking. Perhaps object markers in a Bantu language such as Zulu are neither pronouns nor agreement markers, and their "mixed" properties are the defining characteristic of an entirely different grammatical function. Therefore, rather than committing oneself to one of the two available analyses of object markers, and treating contradictory properties as problems that need to be explained away, it is perhaps worth investigating whether an alternative type of analysis is feasible, and if it can account for the properties of object markers in Bantu languages such as Zulu. Nevertheless, until such time that such an analysis is developed, the pronoun vs. agreement-debate still provides a valuable heuristic tool to compare and evaluate the empirical properties of, and the parametric variation between, different Bantu languages.

Notes

* I thank my co-editors, two reviewers, and the members of the panel "Bantu subject and object marking" at the *Interactions and Interfaces*-conference at Rhodes University (Grahamstown) for helpful comments and discussions. I also wish to thank my informants, particularly Percy Buthelezi, Mpho Dlamini, Precious Gumede, Dumisani Khumalo, Langa Khumalo, Sinethemba Madlala, and Monwa Mhlophe for their time, patience and informative judgments. All errors remain my own. Work on this article was supported by

funding from the College of Humanities at the University of KwaZulu-Natal in the focus area "African Indigenous Knowledge Systems".

¹ The following glosses are used in the examples: 1/2P = first/second person plural; 1/2S = first/second person singular; ADJ = adjectival marker; APPL = applicative; AUG = augment; COP = copulative; DEM = demonstrative; DIS = disjoint verb form; EXPL = expletive; FUT = future tense; FV = final vowel; LOC = locative marker; NEG = negation; OM = object marker; PASS = passive; PAST = past tense; POSS = possessive; PRON = absolute pronoun; PRT = participial subject maker; PSJ = past subjunctive; Q = interrogative marker; REL = relative marker; RS = relative suffix; SM = subject marker; SJ = subjunctive.

² To the best of my knowledge, all Bantu languages allow the object marker to co-occur with a left-dislocated object.

³ In some of these languages, an object-marked object can appear postverbally, but only if it is clearly separated from the rest of the sentence by a strong intonational pause. This suggests that these "extraposed" objects are afterthoughts, and not part of the core syntax of the preceding sentence.

⁴ Notice that the verbs in (8c) and (9c) above are in the conjoint form because the verb is followed by a vP-internal adverb (a VP-adjunct) or the direct object.

⁵ I leave it open whether the word order in (15b) is derived by adjoining the adverb to vP or by adjoining the object to IP.

⁶ It must be noted that some speakers do in fact find (21) acceptable, a judgment that at first glance seems to provide support for Adams's claim that Zulu has null object markers. However, these speakers still consider the corresponding construction with a resumptive absolute pronoun (see (7) above) as at least equally acceptable. Given that strong resumptive pronouns are not possible in contexts in which resumptive object markers are permitted (compare (5) above), this fact would be unexpected if (21) really included a null object marker. Furthermore, speakers who reject (21) still find "double" dislocation examples such as (19) perfectly acceptable. This shows that Zulu does not licence the occurrence of more than one object marker and indicates that the reason why (21) is acceptable for some speakers must be sought elsewhere.

⁷ For some speakers, it is possible to omit the object marker in examples such as (28b), but this option always yields an indefinite reading of the object. Negation therefore creates an environment in which the object marker is obligatory with a definite object in Zulu.

⁸ For example, when asked how many apples were eaten in total in the scenario described by (29), one speaker responded "Four."

⁹ Some speakers judge sentences such as (37) as only marginally acceptable, but still find a contrast between those examples and sentences such as (38), which are judged as ungrammatical.

¹⁰ One possible reason for the obligatory right dislocation of object-marked DPs may be locality constraints on agreement. Suppose that object agreement in Zulu is indeed associated with a functional category F above the vP. Following Chomsky (2000), agreement between F and an object-DP can only be established if F c-commands the DP and if there is no closer DP that intervenes between F and the object. However, this means that agreement between F and the object-DP is blocked by the intervening subject DP if the object remains *in situ*. However, if the object-DP is dislocated and right-adjoined to vP, the subject is no longer closer to F, and agreement between F and the object-DP can be established.

¹¹ As a reviewer points out, object marking in inversion constructions is also impossible in many Bantu languages in which object markers have been analysed as pronominal clitics. In light of the argument made in the text, I regard this as evidence that even in these languages, object markers are not unambiguously pronouns, but rather – at least in inversion contexts – must always be analysed as reflexes of a formal agreement relation.

References

Adams, N. 2010. The Zulu ditransitive verb phrase. PhD-thesis, The University of Chicago.

- Baker, M. 2008.** *The Syntax of Agreement and Concord*. Cambridge, Cambridge University Press.
- Bosch, S.E. 1985.** Subject and object agreement in Zulu. MA dissertation, University of Pretoria.
- Bresnan, J. and S.A. Mchombo. 1987.** Topic, pronoun, and agreement in Chichewa. *Language* 63, 741-782.
- Bresnan, J. and L. Moshi. 1990.** Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21, 147-181.
- Buell, L. 2005.** *Issues in Zulu Verbal Morphosyntax*. PhD-thesis, 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.
- Buell, L. 2008.** VP-internal DPs and right dislocation in Zulu. Ms., University of Leiden.
- Buell, L. forthcoming.** Class 17 as a non-locative noun class in Zulu. To appear in *Journal of African Languages and Linguistics*.
- Cheng, L. and L. J. Downing. 2009.** Where's the topic in Zulu? *The Linguistic Review* 26, 207-238.
- Chomsky, N. 2000.** Minimalist Inquiries: the framework. In R. Martin, D. Michaels and J. Uriagereka (eds.), *Step by Step*. Cambridge: MIT Press, 89-155.
- De Guzman, V. 1987.** Indirect objects in Siswati. *Studies in African Linguistics* 18, 309-325.
- Diercks, M. and J. Sikuku. 2011.** Object marking as pronominal incorporation in Lubukusu. Manuscript, Pomona College and Moi University.
- Halpert, C. 2011.** Argument licensing in Zulu. Manuscript, MIT.
- Henderson, B. 2006.** The syntax and typology of Bantu relative clauses. PhD-thesis, University of Urbana-Champaign.
- Hyman, L. M. and A. Duranti. 1982.** On the object relation in Bantu. In P. Hopper and S. Thompson (eds.), *Studies in Transitivity (Syntax and Semantics 15)*, New York: Academic Press, 217-239.
- Keach, C.N. 1995.** Subject and object markers as agreement and pronoun incorporation in Swahili. In A. Akinlabi (ed.), *Theoretical Approaches to African Linguistics* (Trends in African Linguistics 1), Trenton: Africa World press, Inc., 109-116.
- Kimenyi, A. 1976.** A Relational Grammar Of Kinyarwanda. PhD-thesis, University of California, Los Angeles.
- Marten, L. 2010.** The great siSwati locative shift. In A. Breitbarth, C. Lucas, S. Watts and D. Willis (eds.), *Continuity and Change in Grammar*. Amsterdam: John Benjamins, 249-267.
- Marten, L. and N.C. Kula. this volume.** Object marking and morphosyntactic variation in Bantu.
- Morolong, M. and L.M. Hyman 1977.** Animacy, objects and clitics in Sesotho. *Studies in African Linguistics* 8, 199-218.

- Poulos, G. 1982.** Issues in Zulu Relativization. PhD-thesis, Department of African Languages, Rhodes University, Grahamstown, South Africa. (*Communication* No. 11).
- Riedel, K. 2009.** The Syntax of Object Marking in Smbaa: A comparative Bantu perspective. PhD-thesis, University of Leiden. LOT dissertation series: Utrecht.
- Riedel, K. and L. Marten. this volume.** Locative object marking and the argument-adjunct distinction.
- Rizzi, L. 1986.** Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17, 501-557.
- 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, Massachusetts: Cascadilla Press, 271-283.
- Taraldsen, K.T. 1978.** On the NIC, vacuous application and the that-trace filter, Manuscript, MIT.
- Van der Spuy, A. 1993.** Dislocated noun phrases in Nguni. *Lingua* 90, 335-355.
- Visser, M. W. 1986.** Cliticization and case theory in Xhosa. *South African Journal of African Languages* 6, 129-137.
- Woolford, E. 1995.** Why passive can block object marking. In A. Akinlabi (ed.) *Theoretical Approaches to African Linguistics* (Trends in African Linguistics 1). Trenton, New Jersey: Africa World Press, 199-215.
- Woolford, E. 2000.** Agreement in disguise. In V. Carstens and F. Parkinson (eds.), *Trends in African Linguistics* 4. Trenton, NJ: Africa World Press, 103-117.
- Zeller, J. 2006.** On the relation between noun prefixes and grammaticalisation in Nguni relative clauses. *Studia Linguistica* 60, 220-249.
- Zeller, J. forthcoming.** Instrument inversion in Zulu. To appear in Proceedings of ACAL 42. Somerville, Massachusetts: Cascadilla Press.