

The coming apart of case and focus in Bantu

Asia Pietraszko

University of Rochester

July 3, 2020

to appear in *Natural Language and Linguistic Theory*

Abstract

The paper presents an argument for structural case in a Bantu language, Ndebele. Bantu languages notoriously lack typical signs of case licensing, which has led to the proposal that they lack case altogether. A recent claim to the contrary, put forth in Halpert 2012, 2015, has been challenged by Carstens & Mletshe (2016), who argue that the patterns Halpert describes fall under the umbrella of focus licensing, thus undermining the need for an independent case licensing mechanism. Ndebele data invalidate this challenge, revealing a purely syntactic nature of the phenomenon in question.

1 Introduction

The existence of case phenomena in Bantu languages has been a long standing debate. One reason is the absence of morphological marking that could be straightforwardly interpreted as case morphology. The other reason is the notorious absence of the kind of restrictions on the distribution of nominals that have been attributed to Abstract Case since Vergnaud 1977. In light of these facts, it has been proposed that Bantu languages lack case altogether or that its effects are largely vacuous and can be observed only in a few narrow corners in the grammar. Contrary to this claim, Halpert (2012, 2015) argues that Zulu exhibits structural case, pointing out two reasons why the patterns in question were not previously analyzed as case. First, not all DPs are subject to structural case licensing; rather, only DPs with special morphology – the lack of *the augment* – require structural case. Second, structural case in Zulu is not licensed in the same configurations as in better studied case systems; in particular, Zulu exhibits only vP internal case licensing, and there is no structural case associated with T. Once we recognize these two peculiarities of Zulu, a robust pattern of restrictions on nominal distribution follows from the proposed structural case system.

However, Halpert's claim has been recently challenged by Carstens & Mletshe (2016), who argue that, in both Xhosa and Zulu, the hypothesized structural case positions are in fact focus positions, and what Halpert characterized as case licensing is in fact focus licensing. In their view, augmentless nominals are a type of focus phrase and their distribution falls out from an independently needed mechanism of focus licensing. If true, such redundancy casts serious doubt over the structural case hypothesis for Zulu, bringing us back to the world in which evidence for case in Bantu is weak at best and extremely scarce. In this paper, I provide evidence against reducing augmentless nominal licensing to focus licensing. The evidence comes from Northern Ndebele (S44, Zimbabwe), a close relative of Zulu with the same restrictions on augmentless nominals. I show that, even though augmentless and focused phrases have partly overlapping distributions, there are positions that allow one but not the other. This leads us to conclude that the distributional restrictions on augmentless nominals cannot be reduced to focus licensing. Moreover, I show that the non-overlapping contexts, in which an augmentless noun is impossible despite being in a licit focus position, follow if augmentless nominals are indeed structurally case-marked.

2 Case in Bantu – a brief recap of the debate

The goal of this section is to i) highlight some representative arguments given in the literature against case in Bantu languages, ii) present Halpert's arguments for structural case in Zulu and iii) describe the challenge for

this claim posed by Carstens & Mletshe's findings.¹

First, DPs in Bantu languages bear no case morphology. Consider the DP *umama* 'mother' in (1), which has the same form when appearing as a subject (1-a), direct object (1-b) and indirect object (1-c).²³

- (1) a. U-mama u-pheke i-suphu. Ndebele
A-1mother 1s-cook.PST A-9soup
'Mother cooked soup.'
- b. Ngi-bone u-mama.
1SG.S-see.PST A-1mother
'I saw mother.'
- c. Ngi-nike u-mama a-maluba.
1SG.S-give.PST A-1mother A-6flower
'I gave mother flowers.'

Moreover, Bantu languages lack the kind of restrictions on the distribution of DPs that have been attributed to Abstract Case since Vergnaud 1977. First, as observed by Harford Perez (1985) for Shona, subjects of passive sentences need not move to Spec,IP, where they would receive nominative case (2). Since the passive verb is, in GB terms, not a case assigner, the subject is in a caseless position, in violation of the Case Filter.

- (2) Kw-á-uray-iw-a mu-rúmé né-shumba ku-ru-kova.
15S-PST-kill-PASS-FV 1-man by-9lion 17-11-river
'There was a man killed by a lion at the river.' (Harford Perez 1985, Shona)

The lack of A-movement in (2) continued to be problematic in the Minimalist theory of case, in which case licensing was implemented as a "side effect" of agreement (Chomsky 1995 *et seq.*). Notice that the in-situ subject in (2) does not control agreement (instead, the verb appears with the locative class 17 agreement, a common default agreement exponent in Bantu languages). In the absence of an Agree relation, the subject's uninterpretable case feature cannot be checked and the derivation is expected to crash.

Further, we find that non-finite clauses in Bantu languages may have overt subjects, as in the following Swahili sentence:

- (3) I-na-wezakana [(**kwa*) Maiko ku-m-pig-i-a Tegani simu.]
9S-PRS-possible (**for*) Michael INF-1O-beat-APPL-FV Tegan phone
'It's possible for Michael to call Tegan.' (Diercks 2012, Swahili)

In GB, the non-finite I^0 is not a case licenser. In Minimalism, a DP in this position cannot receive case since it does not control agreement (on T or any other head). Nonetheless, an overt subject in (3) is licit, without controlling agreement or being licensed by a preposition.

Finally, many Bantu languages exhibit hyperraising, i.e. raising of a subject out of a finite clause:

- (4) a. [_{IP} _{PRO}EXPL Zví-no-fungir-wa [_{CP} kuti [_{IP} mbavhá y-aka-vánd-á mú-bako]]].
8EXPL 8S-PRS-suspect-PASS that 9thief 9S-FAR.PST-hide-FV 18-cave
'It is suspected that the thief is hidden in the cave.'

¹ Due to space limitations, this section cannot do justice to all existing claims about potential case phenomena in Bantu languages. For a more detailed overview see Halpert 2015, Diercks & Carstens to appear.

² All Ndebele data were collected during interviews with members of a Ndebele diaspora in the United States and in South Africa (Johannesburg and Durban). All speakers (14, aged 21-60), are native speakers of Ndebele and most of them identify Ndebele as their primary language.

³ I follow the Leipzig Glossing convention with the following additions: 1 – class 1 nominal prefix (etc.), 1s – class 1 subject agreement (etc.), 1o – class 1 object agreement (etc.), A – augment vowel, CNJ – conjoint, DSJ – disjoint, FV – final vowel.

- b. [IP Mbavhá_i i-no-fungir-wa [CP kuti [IP t_i y-aka-vánd-á mú-bako]]].
 9thief 9S-PRT-suspect-PASS that 9S-FAR.PST-hide-FV 18-cave
 ‘The thief is suspected to be hidden in the cave.’ (Harford Perez 1985, Shona)

Hyperraising is unexpected due to the role that uninterpretable Case features play in agreement under Minimalist assumptions (Chomsky 2000, 2001): a DP must have an unchecked uCase feature in order to enter in an Agree relation. Since the subject in (4-a) controls agreement on the embedded T, its uCase feature is checked in the embedded clause, rendering the DP inactive for further agreement and raising.

These facts gave rise to the idea that Bantu languages lack case licensing altogether (Harford Perez 1985; Diercks 2012; Carstens & Diercks 2013) or that it is rare in the Bantu family (Sheehan & Van der Wal 2018). If existent, such licensing would have no connection to finiteness or agreement. Indeed, another interpretation of the problematic facts above is that Bantu DPs do have uCase but the checking of this feature is not tied to agreement and finiteness the way it has been claimed for e.g. Indo-European languages (i.a. Ndayiragije 1999; Baker 2003, 2008; Carstens 2001, 2011; Carstens & Mletshe 2015). In effect, it is impossible to detect case through its interaction with agreement and finiteness.⁴

It is important to note that the connection between case and agreement posited in Minimalism has been increasingly called into question, for reasons extending far beyond the Bantu language family (Bittner & Hale 1996; Bobaljik 2008; Preminger 2014; Kornfilt & Preminger 2015). In this light, the facts in (2)-(4) can no longer be taken as evidence for the absence of case. However, given the absence of morphological case marking, *positive* evidence for case licensing in Bantu languages remains extremely scarce, if present at all. Indeed, the discussion of case in the Bantu literature focuses on case as the explanandum, not the explanans. That is, it attempts to explain why case effects are not observed in this language family, rather than using case licensing as an explanation of an empirical puzzle. Instances of the latter type of discussion include Baker 2003 and Carstens & Mletshe 2015. Baker proposes that postverbal subjects in Kinande must be augmentless because they are not in a case position. Unlike DPs with an augment, augmentless nouns do not require case⁵. Similarly, Carstens & Mletshe argue that case is responsible for ruling out Xhosa VSO sentences in which V is a psych-verb and the object has an augment. They attribute this to a constraint banning two inherent cases on a single DP – a constraint that would be violated by the subject in such a configuration. Despite using case as an explanation for an empirical puzzle, the restrictions these authors aim to derive are not robust patterns of DP distribution. Rather, they are specific to a single position and/or construction. The general picture, then, appears to be that case effects are either absent in Bantu languages or, due to the nature of case licensing in these languages, they surface only in a few narrow corners of the grammar.

In contrast, Halpert (2012, 2015) argues that Zulu DPs are structurally licensed and that the licensing gives rise to easily observable restrictions on the distribution of nominals. Crucially, however, case licensing is not a requirement for all DPs; only DPs without the so called *augment prefix* must receive structural case. The augment has the form of a vowel and it covaries with noun class (5).

- | | | |
|--|---|---------|
| (5) <i>Augmented DPs</i>
u-muntu, i-nja
A-1person A-9dog | (6) <i>Augmentless DPs</i>
muntu, nja
1person, 9dog | Ndebele |
|--|---|---------|

Every DP in Zulu (and in Ndebele, the language analyzed here) exhibits the alternation between (5) and (6). In Zulu and Ndebele, augmentless DPs must either be a *wh*-item (7) or appear in a negative sentence (8). Note that dropping the augment is always optional.

⁴ Van der Wal 2015 argues that Matengo and Makhuwa are languages with abstract Case. Crucially, however, evidence for this claim comes from the fact that these two languages show the familiar abstract case phenomena that most other Bantu languages famously lack.

⁵ It is worth noting that, under this view, augmentless nouns are expected to have a wider distribution than augmented ones, which does not appear to be the case, in Kinande or other Bantu languages. For instance, Baker’s account incorrectly predicts that [–Aug] nouns should be licit in Spec,TP since that position is caseless in this analysis.

- | | | | | | |
|-----|----|--|----|--|---------|
| (7) | a. | Ba-bona u -bani?
2S-see A-1who
'Who do they see?' | b. | Ba-bona bani?
2S-see 1who
'Who do they see?' | Ndebele |
| (8) | a. | A-ba-boni u -mfana.
NEG-2S-see A-1boy
'They don't see a/the boy.' | b. | A-ba-boni mfana.
NEG-2S-see 1boy
'They don't see a(ny) boy.' | |
| | c. | Ba-bona u -mfana.
2S-see A-1boy
'They see a/the boy.' | d. | *Ba-bona mfana.
2S-see 1boy
('They see a/the boy.') | |

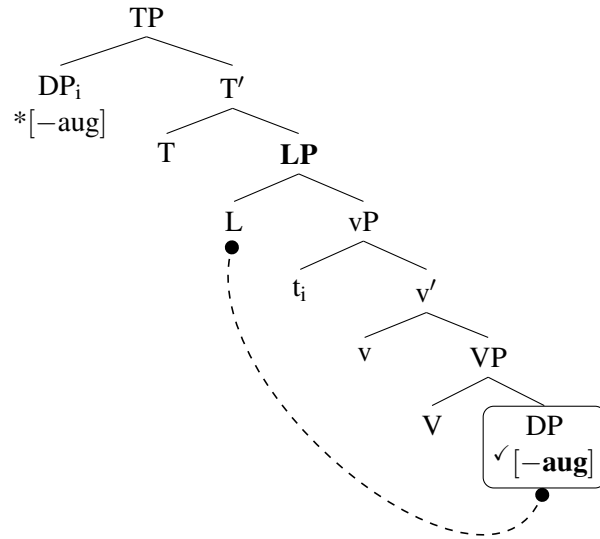
The absence of an augment in Bantu languages typically correlates with certain interpretive effects – most notably with focus, indefiniteness or NPI-hood. This can be seen in the negative sentences in (8), in which the augmentless object is interpreted as a narrow scoping indefinite, a meaning characteristic of NPIs. The most salient interpretation of an augmented object in that position is that of a definite or a wide scope indefinite (8-a). Due to these interpretive effects, the absence of the augment has previously been treated as morphology reflecting focus, indefiniteness and/or NPI-hood (Ziervogel 1967; von Staden 1973; Hyman & Katamba 1993; Progovac 1993; Giusti 1997; de Dreu 2008; Visser 2008; Taraldsen 2010; Buell & de Dreu 2013; Asimwe 2014; Carstens & Mletshe 2016; Van der Wal & Namyalo 2016, among many others), rather than as case-related morphology. It is worth noting, however, that [–Aug] is not systematically associated with indefiniteness. Proper names, which are a type of definite NP, can be augmentless, too:

- | | | |
|-----|---|---------|
| (9) | A-ba-boni (u)-Zodwa.
NEG-2S-see (A)-1Zodwa
'They don't see Zodwa.' | Ndebele |
|-----|---|---------|

The availability of augment drop on wh-items further shows that augmentless DPs are not always NPIs, either – recall that wh-items do not require negation in order to be augmentless. Importantly, augmentless wh-items are restricted to the same structural positions as other augmentless DPs. The only difference is that they need not appear in a negative sentence. Halpert proposes that negative polarity and wh-hood are independent licensing requirements for augmentless DPs, which can be thought of as semantic preconditions on their appearance. The distribution of augmentless DPs is *additionally* regulated by purely syntactic factors, and her theory is a theory of the structural (not the semantic) licensing conditions.

Building on observations in previous literature, Halpert proposes that there is no case associated with T or the Spec,TP position in Zulu, and that case licensing is not linked to movement or φ -agreement. Rather, a single licenser, located immediately above vP, assigns structural case to the highest DP in its c-command domain (i.e. inside the vP). In an SVO sentence, such as (10), the object is the only, and thus the highest, DP inside the vP. It may therefore be licensed as augmentless.

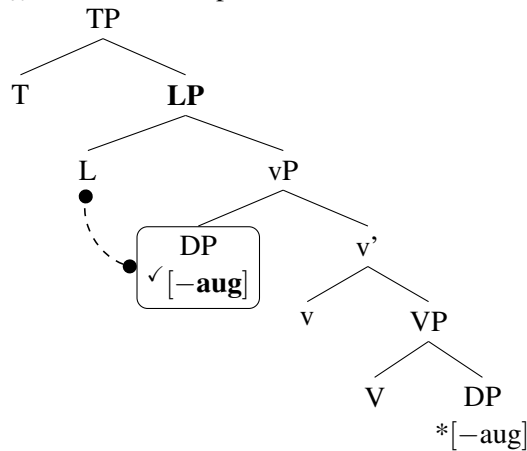
- | | | |
|------|---|---------|
| (10) | *(U)-Zodwa a-ka-pheki (i)-suphu.
A-1Zodwa NEG-1S-cook A-9soup
'Zodwa didn't cook soup.' | Ndebele |
|------|---|---------|



The subject, having undergone movement to Spec,TP, is outside of the licenser's c-command domain and consequently may not be augmentless.⁶

The licensing pattern changes if the subject remains in-situ, as in the Transitive Expletive Construction in (11). Here, the subject is licensed (augmentless) as it is the highest DP in the vP. This, in turn, blocks the licensing of the object, which now must have an augment.

- (11) A-ku-pheki (u)-Zodwa *(i)-suphu. Ndebele
 NEG-1S-cook A-1Zodwa A-9soup
 'Zodwa_{Foc} didn't cook soup.'



The third pattern of licensing is an SVO sentence with object agreement. Agreed-with objects in Zulu and Ndebele may not be augmentless (12).

- (12) *(U)-Zodwa a-ka-yi-pheki *(i)-nyama. Ndebele
 A-Zodwa NEG-1S-9O-cook A-9meat
 'Zodwa didn't cook meat.'

Halpert explains this restriction by an independently motivated claim that agreed-with objects are always dislocated (i.a. Van der Spuy 1993; Buell 2005, 2006; Cheng & Downing 2009; Adams 2010). Object dislocation is evident from the obligatory placement of the object to the right of a vP-level adverb, as in the

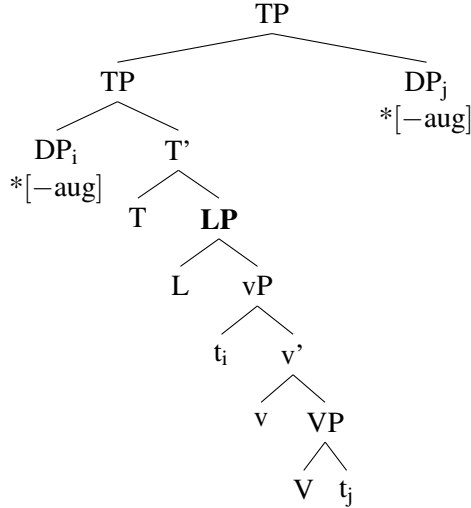
⁶ Here, I rely on Halpert's theory which stipulates that licensing takes place after movement.

Ndebele sentence in (13).⁷

- (13) U-Zodwa a-ya-**yi**-pheka {*-nyama} kahle {✓i-nyama}. Ndebele
 A-Zodwa 1S-DSJ-9O-cook A-9meat well A-9meat
 ‘Zodwa didn’t cook meat well.’

Dislocation brings objects outside of the vP and thus outside of the c-command domain of the licensor. Following Van der Spuy 1993; Buell 2005, I analyze right dislocated objects as adjoined to TP.

(14)



In the structure above, there is no DP left inside the vP, and thus no DP receives structural case. Consequently, both the subject and the object must have an augment.

To summarize, we’ve seen three patterns⁸ of augment distribution in transitive sentences: SVO with an in-situ object, VSO and SVO with a dislocated object (diagnosed by the presence of object agreement) (15).

(15)

	Subject	Object	
SV [vP O]	*[-Aug]	✓[-Aug]	<i>object may be augmentless, subject cannot</i>
V [vP SO]	✓[-Aug]	*[-Aug]	<i>subject may be augmentless, object cannot</i>
SV [vP] O	*[-Aug]	*[-Aug]	<i>neither subject nor object may be augmentless</i>

The distribution [-Aug] nominals presented in (15) is captured by Halpert’s proposal, in which an augmentless DP must be the highest DP inside the vP. Augmented DPs occur elsewhere.

In this theory, DPs *with* an augment still raise the familiar questions about case discussed above – structural restrictions on their distribution are extremely difficult to find. Thus, previously proposed theories of case in Bantu, which explain the (apparent) absence of case phenomena in those languages, might indeed be needed, but only pertaining to augmented DPs. Halpert’s own proposal for augmented DPs is that they are inherently case-marked (by the augment) and are therefore not limited to specific structural positions. An important discovery in Halpert’s work, and the one that’s relevant here, is that, if we set augmented DPs aside

⁷ Some speakers of Ndebele allow dislocation of low adverbs. For those speakers, adverb placement is not a reliable diagnostic for object dislocation. An additional diagnostic for dislocated objects is the so called *disjoint* form of the verb (here, the prefix *ya*). Disjoint forms appear when there is no phrasal material in the vP (Buell 2006; Halpert 2012). Negative forms of the verb do not have a separate disjoint form, however.

⁸ Zulu has a fourth context: in expletive ditransitives (V-S-IO-DO), the indirect object cannot be augmentless or narrowly focused (Halpert 2012, 2015; Carstens & Mletshe 2016). I do not consider this configuration since Ndebele speakers find expletive ditransitive constructions significantly degraded, irrespective of focus/augment. Regardless, the present goal is to show that there exist positions in which [-Aug] and focus do *not* overlap. Another instance of an overlapping distribution does not change this fact.

and look exclusively at augmentless DPs, we find what has been thought to be absent in Bantu languages: generalizations about the distribution of nominals, observed in a variety of syntactic contexts, captured by a simple mechanism of structural case licensing.

The case-based analysis of augmentless DPs in Zulu has been recently challenged by Carstens & Mletshe (2016), who argue that their distribution is governed by focus, not case. Zulu and related Bantu languages exhibit a high level of discourse-configurationality – there are designated focus and topic positions. Focus positions are diagnosed e.g. by the possibility of modifying a DP with the focus particle *kuphela* ‘only’. The key empirical argument Carstens & Mletshe (2016) present is that augmentless DPs have the same distribution as DPs modified by the exhaustive focus particle ‘only’. Thus, *only*-DPs are impossible preverbally (16-a), but are licit as in-situ subjects (16-b).

- (16) a. *[**U-Zodwa kuphela**] u-pheka i-nyama. cf. (10) Ndebele
 A-1Zodwa only 1S-cook A-9meat
 Intended: ‘Only Zodwa cooks meat.’
- b. Kupheka [**u-Zodwa kuphela**] i-nyama. cf. (11)
 15S-cook A-1Zodwa only A-9meat
 ‘Only Zodwa cooks meat.’

They may be objects of SVO sentences but not of VSO sentences:

- (17) a. U-Zodwa u-pheka [**i-nyama kuphela**]. cf. (10) Ndebele
 A-1Zodwa 1S-cook A-9meat only
 ‘Zodwa cooks only meat.’
- b. *Kupheka u-Zodwa [**i-nyama kuphela**]. cf. (11)
 15S-cook A-1Zodwa A-9meat only
 Intended: ‘Zodwa cooks only meat.’

Finally, *only*-DPs are impossible as dislocated objects:

- (18) a. *U-Zodwa u-ya-**yi**-pheka [**i-nyama kuphela**]. cf. (12) Ndebele
 A-1Zodwa 1S-DSJ-9O-cook A-9meat only
 Intended: ‘Zodwa cooks only meat.’

Another type of focused DP discussed by Carstens & Mletshe are interrogative pronouns. They have the same distribution as DPs modified by *only*, which the authors explain by treating *wh*-items as inherently focused. Thus, *wh*-items cannot be preverbal subjects but they can be subjects in VSO constructions (19). They can be objects in SVO but not in VSO (20). Finally, they cannot be dislocated (21).

- (19) a. * **U-bani** u-bone u-Florence. b. Ku-bone **u-bani** u-Florence?
 A-1who 1S-saw A-1Florence 15S-saw A-1who A-1Florence
 (‘Who saw Florence?’) (‘Who saw Florence?’)
- (20) a. U-Zodwa u-bone **u-bani**. b. *Ku-bone u-Zodwa **u-bani**?
 A-1Zodwa 1S-saw A-1who 15S-saw A-1Zodwa A-1who
 ‘Who did Zodwa see?’ (‘Who did Zodwa see?’)
- (21) *U-Zodwa u-**m**-bonile **u-bani**? Ndebele
 A-Zodwa 1S-1O-saw A-1who
 (‘Who did Zodwa see?’)

The overlapping distribution of focused DPs and augmentless DPs is summarized in (22)-(23).

(22)		Subject	Object	(23)		Subject	Object
	SV [vP O]	*[−Aug]	✓[− Aug]		SV [vP O]	*[Foc]	✓[Foc]
	V [vP SO]	✓[− Aug]	*[−Aug]		V [vP SO]	✓[Foc]	*[Foc]
	SV [vP] O	*[−Aug]	*[−Aug]		SV [vP] O	*[Foc]	*[Foc]

Crucial to Carstens & Mletshe’s argument is the observation that focused DPs need not be augmentless. In (16-a)-(18-a), all DPs modified by *only* have an augment.⁹ Since Halpert’s theory is specific to [−Aug] DPs, it cannot derive the parallel between (22) and (23). An independent mechanism would be needed to derive licit focus positions, incidentally outputting the same set of position as the case-licensing mechanism. Carstens & Mletshe argue, reasonably, that missing this obvious parallelism is undesired. Instead, they propose that (22) is really a subcase of (23). They take [−Aug] DPs to be NPIs and assume that NPIs bear a [+Foc] feature. This feature is also present on DPs modified by *only* and on wh-phrases. Under this view, there is no need for a separate case licensing mechanism deriving the distribution of augmentless DPs. Their distribution falls out from a more general distribution of focused DPs.¹⁰

While Carstens & Mletshe’s argument is convincing, it turns out to make incorrect predictions about closely related Ndebele. The relevant data come from constructions that Carstens & Mletshe do not consider in their analysis of Zulu and Xhosa, so it remains unclear whether their analysis holds up for those languages when confronted with these broader data. I show in the next section that the distribution of focused DPs and [−Aug] DPs in Ndebele is not fully overlapping. Moreover, the non-overlapping set of contexts is predicted by Halpert’s case-licensing theory. All data in the remainder of the paper come from Ndebele.

3 Evidence against reducing [−Aug] licensing to focus

Recall that, unlike other DPs, wh-items need not cooccur with negation to be augmentless. The configurational constraints discussed above are all that governs the distribution of augmentless wh-items. According to Carstens & Mletshe 2016, an augmentless DP is a type of focused DP. Thus, any position in which focused DPs are allowed is a position in which augmentless DPs are allowed. The consequence for wh-items, which Carstens & Mletshe take to be inherently focused, is that they can always be augmentless. This is indeed what Carstens & Mletshe show is true in Zulu and Xhosa, and the facts they give as illustration can be reproduced in Ndebele. As long as the wh-item appears in a licit focus position, it can be augmentless (24-b), (25-a). Non-focus positions are incompatible with wh-items, whether the wh-phrase has an augment or not ((24-a), (25-b) and (26)).

- | | | | | |
|------|----|---|----|--|
| (24) | a. | * (U)-bani u-bone u-Florence.
A-1who 1S-saw A-1Florence
(‘Who saw Florence?’) | b. | Ku-bone (u)-bani u-Florence?
15S-saw A-1who A-1Florence
(‘Who saw Florence?’) |
| (25) | a. | U-Zodwa u-bone (u)-bani .
A-1Zodwa 1S-saw A-1who
(‘Who did Zodwa see?’) | b. | *Ku-bone u-Zodwa (u)-bani ?
15S-saw A-1Zodwa A-1who
(‘Who did Zodwa see?’) |
| (26) | | *U-Zodwa u- m-bonile (u)-bani ?
A-1Zodwa 1S-1O-saw A-1who
(‘Who did Zodwa see?’) | | |

⁹ In fact, the augment is obligatory there since the sentences lack negation (and these are not wh-items).

¹⁰ Carstens & Mletshe briefly discuss one potential problem for their claim, also observed in Buell 2009; Halpert 2012. While objects in VSO sentences cannot be augmentless, they can, at least for some speakers, be wh-items. Halpert interprets this asymmetry as evidence that [−Aug] DPs do not have the distribution of focused DPs. Carstens & Mletshe view it as weak evidence since the speakers who accept wh-items in this position report an emphatic/echo reading of such as wh-question. They tentatively assume that wh-items in echo questions do not have a focus feature, and thus don’t constitute counterevidence to their claim that augmentless DPs are a type of focused DPs.

Carstens & Mletshe’s prediction that *wh*-items can always be augmentless breaks down when we consider a broader range of facts. The counterexamples come from the distribution of preverbal subjects in Ndebele. Recall that the preverbal subject position is not a focus position – both in the languages analyzed by Carstens & Mletshe (Zulu and Xhosa) and in Ndebele. However, we have only considered one clause type – matrix indicative clauses. It turns out that preverbal subjects may be focused in other clause types in Ndebele: i) subjunctive clauses (28), ii) relative clauses (29) and iii) participial adjunct clauses (30). Embedded indicative clauses are like matrix clauses in that their preverbal subjects cannot be focused DPs (27).

- (27) *U-cabanga [ukuthi **u-bani** u-za-buya]? *indicative clause*
 2SG-think COMP A-1who 1S-FUT-come
 Intended: ‘Who do you think will come?’
- (28) U-funa [ukuthi **u-bani** a-buye]? *subjunctive clause*
 2SG-want COMP A-1who 1S-come.SBJV
 ‘Who do you want to come?’
- (29) U-zwe ingoma [**u-bani** a-yi-hlabelileyo]? *relative clause*
 2SG-hear.PST.CNJ 9song A-1who 1S-9O-sing.PST.REL
 ‘Who is such that you heard the song that they sang?’
 (lit. You heard the song that who sang?)
- (30) U-suke [**u-bani** e-hlabela]? *participial adjunct clause*
 2SG-leave.PST.CNJ A-1who 1S-sing
 ‘Who is such that you left while they were singing?’
 (lit. You left who singing?)

This asymmetry between root(-like) indicative clauses and other clause types is not itself problematic for Carstens & Mletshe’s idea to assimilate [–Aug] to focus (and it’s a pattern that has been observed in other Bantu languages, e.g. Schneider-Zioga 2007 for Kinande, and partially by Carstens & Zeller (to appear) for Zulu). The problem lies in the fact that the licit focus positions in (28)-(30) are not licit [–Aug] positions:

- (31) *U-funa [ukuthi **bani** a-buye]? *subjunctive clause*
 2SG-want COMP 1who 1S-come.SBJV
 Intended: ‘Who do you want to come?’
- (32) *U-zwe ingoma [**bani** a-yi-hlabelileyo]? *relative clause*
 2SG-hear.PST.CNJ 9song 1who 1S-9O-sing.PST.REL
 Intended: ‘Who is such that you heard the song that they sang?’
- (33) *U-suke [**bani** e-hlabela]? *participial adjunct clause*
 2SG-leave.PST.CNJ 1who 1S-sing
 ‘Who is such that you left while they were singing?’
 (lit. You left who singing?)

The data in (28)-(33) are a clear case of dissociation of [–Aug] and focus, falsifying the claim that licensing of [–Aug] DPs can be subsumed under an independently needed theory of focus licensing. Carstens & Mletshe do not consider these contexts and so it is unclear if Zulu and Xhosa differ from Ndebele in this respect (see, however, later work by Carstens & Zeller (to appear), who report that the preverbal subject position of subjunctive and relative clauses is for some speakers of Zulu a licit focus position).¹¹

¹¹ A reviewer suggests a different interpretation of the impossibility of augmentless nominals in (31)-(33), namely that augmentless nominals are not compatible with all types of focus, and the type(s) of focus they are compatible with is unavailable in the preverbal position. An observation along these lines was made by Van der Wal and Namyalo 2016, who show that [–Aug] is compatible with exhaustive, exclusive and identificational focus, but not with additive focus (particle *even*). Such an alternative is ruled out for Ndebele due to the following facts. We know that augmentless nominals are compatible with exhaustive focus – an augmentless

This asymmetry between indicative clauses and other clause types disappears if the subject remains in situ, in which case the subject can be focused and [–Aug] (the paradigm does not contain a relative clause due to an independent ban on relativization across an in-situ subject).

- (34) U-cabanga [ukuthi ku-za-buya **bani**]? *indicative clause*
 2SG-think COMP 15S-FUT-come 1who
 ‘Who do you think will come?’
- (35) U-funa [ukuthi ku-buye **bani**]? *subjunctive clause*
 2SG-want COMP 15S-come.SBJV 1who
 ‘Who do you want to come?’
- (36) U-suke [ku-hlabela **bani**]? *participial adjunct clause*
 2SG-leave.PST.CNJ 1S-sing 1who
 ‘Who is such that you left while they were singing?’
 (lit. You left who singing?)

We thus arrive at the following distribution of subject DPs (“regular DP” in the table below refers to a non-focused [+Aug] DP).

(37)		regular DP	focused DP	[–Aug] DP
	SV (indicative)	✓	✗	✗
	SV (subjunctive)	✓	✓	✗
	SV (relative clause)	✓	✓	✗
	SV (participle)	✓	✓	✗
	VS (any clause type)	✓	✓	✓

This mismatch between focus and [–Aug] is not specific to wh-items. DPs associated with the focus particle *kuphela* ‘only’ are also possible as preverbal subjects of subjunctive, relative and participial adjunct clauses:

- (38) Ngi-funa [ukuthi **u-Sipho kuphela** a-buye]. *subjunctive clause*
 1SG-want.CNJ COMP A-1Sipho only 1S-come.SBJV
 ‘I want only Sipho to come.’
- (39) Ngi-zwe ingoma [**u-Sipho kuphela** a-yi-hlabelileyo]. *relative clause*
 1SG-heard.CNJ 9song A-1Sipho only 1S-9O-sing.PST.REL
 ‘I heard the song that only Sipho sang.’
- (40) Ngi-suke [**u-Sipho kuphela** e-hlabela]. *participial adjunct clause*
 1SG-left.CNJ A-1Sipho only 1S-sing
 ‘I left when only Sipho was singing.’

Like augmentless wh-items, other augmentless nominals are banned in these positions. Recall that non-wh-items require c-commanding negation to be augmentless:

noun can be associated with *kuphela* ‘only’.

- (i) A-ngi-bonanga (u-)Sipho kuphela.
 NEG-1SG-saw (A-)1Sipho only
 ‘I didn’t see only Sipho.’

We will see shortly that preverbal subjects in these three clause types can be exhaustively focused (38)–(40). If the distribution of [–Aug] is governed by type of focus and [–Aug] is compatible with exhaustive focus, we incorrectly predict that [–Aug] should be allowed in all positions that can host exhaustive focus, including embedded preverbal subjects (see also the discussion of (38)–(43)).

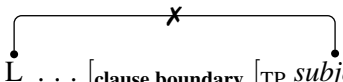
- (41) A-ngi-funi [ukuthi ***(u-)Sipho** a-buye]. *subjunctive clause*
 NEG-1SG-want.NEG COMP A-1Sipho 1S-come.SBJV
 ‘I don’t want Sipho to come.’
- (42) A-ngi-zwanga ingoma [***(u-)Sipho** a-yi-hlabelileyo]. *relative clause*
 NEG-1SG-heard.NEG 9song A-1Sipho 1S-9O-sing.PST.REL
 ‘I didn’t hear the song that Sipho sang.’
- (43) A-ngi-sukanga [***(u-)Sipho** e-hlabela]. *participial adjunct clause*
 NEG-1SG-left.NEG A-1Sipho 1S-sing
 ‘I didn’t leave while Sipho was singing.’

The conclusion is straightforward: whatever [–Aug] licensing is, it is not the same mechanism as focus licensing.¹² In the next section, I show that the last column in (37) is predicted by Halpert’s case licensing analysis. I then sketch an analysis deriving the middle column – the unavailability of focused preverbal subjects only in indicative clauses.

4 Deriving the imperfect correlation between focus and [–Aug]

4.1 [–Aug] subject positions

The impossibility of [–Aug] licensing in the contexts discussed above can be straightforwardly accounted for by Halpert 2012’s structural case theory, in which structural case is assigned to the highest nominal in the vP and is spelled out as an augmentless noun. Assuming that case licensing is clause-bound, preverbal subjects cannot be reached by the matrix licenser due to an intervening clausal boundary:

- (44)  L . . . [clause boundary [TP subject [LP L . . .]]]

This is true for preverbal subjects in all clause types: indicative, subjunctive, relative and participial adjunct clauses. All clause types allow an augmentless subject as long as it remains inside the vP. This is expected

¹² The impossibility of augment drop in these contexts is not due to the absence of *clausmate* negation: if the embedded subject stays in situ, it can be augmentless, despite negation being in the higher clause:

- (i) A-ngi-funi [ukuthi ku-buye **(u-)Sipho**].
 NEG-1SG-want COMP 15S-come.SBJV A-1Sipho
 ‘I don’t want Sipho to come.’

Based on a similar observation in Zulu and Xhosa, Carstens & Mletshe conclude that the contrast is not due to non-local negation but due to the preverbal position being incompatible with focus (pp.792-793).

In earlier work, Carstens & Mletshe proposed that [–Aug] nominals must undergo A’-movement to be licensed as NPIs (2015:213). The impossibility of augmentless embedded subjects was attributed to a ban on movement of the embedded subject to a local A-bar position as it would trigger the *that*-trace effect (following Kayne’s (1981) account of the French *personne*-NPI). This account of Ndebele would be challenged by the following fact: embedded subjects in subjunctive clauses *can* be augmentless iff the complementizer is augmentless itself, i.e. *kuthi* rather than *ukuthi* (see Pietraszko 2019 for an account of the complementizer augment):

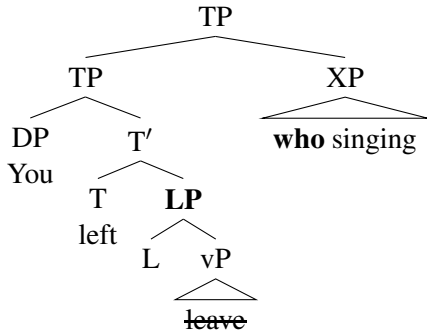
- (ii) A-ngi-funi [**kuthi (u-)Sipho** a-buye]. (cf. (41))
 NEG-1SG-want COMP A-1Sipho 1S-come.SBJV

Carstens & Mletshe 2015 would be forced to make the odd stipulation that *that*-trace effect doesn’t arise if the complementizer is augmentless. In contrast, (ii) resembles cases reported in Rackowski & Richards 2005 where agreement/licensing of a phasal category (here CP) voids its phasehood, allowing interaction with embedded material. Thus, (ii) can be viewed as further supporting the case-licensing view. Moreover, since wh-items are not licensed by negation, Carstens & Mletshe (2015) do not explain why augmentless wh-items cannot appear in the preverbal subject position either (a gap they eliminate in the later, focus-based account). Note that the complementizer form is kept constant throughout the paper (*ukuthi*) to avoid any confounds.

since, in this position, the subject is locally c-commanded by the embedded licenser. Thus, Halpert's case licensing theory correctly derives the attested distribution of [–Aug] subjects – the last column in (37).

I'd like to suggest that for participial adjunct clauses specifically, there may be an additional reason why their subjects cannot be reached by the matrix licenser. While complement clauses (and often relative clauses) are vP-internal, participial adjunct clauses appear to attach outside of vP in Ndebele, even though they may immediately follow a verb in the conjoint form (40). First, the adjunct clauses under discussion are temporal adjuncts (*while*-clauses and *before*-clauses), suggesting an adjunction site within the tense domain, similarly to temporal adjuncts (Cinque 1999 and many others):¹³

(45) Structure of (30)



In this position, the adjunct clause is not c-commanded by the matrix L, and thus its pre-verbal subject is not c-commanded by any L, matrix or local. The second reason to think that temporal adjuncts are outside of vP is that they cannot be reordered with vP-level adverbs, such as *kahle* 'well', even when the verb is in its conjoint form (46).

(46) Ngipheke {*izolo} kahle {[✓]izolo}.
1SG-cooked.CNJ yesterday well yesterday
'I cooked well yesterday.'

(47) Ngipheke {*ngihlabela} kahle {[✓]ngi-hlabela}.
1SG-cooked.CNJ 1sg-sing well 1sg-sing
'I cooked well while singing.'¹⁴

And third, if temporal adjuncts could be vP-internal, we would expect them to behave like other vP-internal material with respect to focus. In-situ objects and vP-level adverbs can be part of vP-focus, diagnosed by answering a vP-oriented constituent question (48). Temporal adjuncts may not appear in vP-focus (49).¹⁵

(48) Q: U-enze-ni?
2SG-did.CNJ-WH
'What did you do?'

A: Ngi-dle {i-nyama/kakhulu}.
1SG.S-ate.CNJ A-9meat/a lot
'I ate {meat/a lot}.'

(49) Q: U-enze-ni?
2SG-did.CNJ-WH
'What did you do?'

A: #Ngi-dle {izolo/ngi-hlabela}.
1SG.S-ate.CNJ yesterday/1sg-sing
'I ate {yesterday/while singing}.'

Given this, we may tentatively conclude that temporal adjunct clauses in Ndebele are vP-external and thus

¹³ In a more articulated clause structure, the adjunction site may be an aspect-related projection between TP and LP.

¹⁴ The adjunct clause may precede the adverb *kahe* 'well' only if the adverb is part of the adjunct clause, giving rise to the meaning: 'I cooked while singing well'.

¹⁵ A reviewer points out that similar adjuncts in Zulu may be interpreted as part of vP-focus. This potentially suggests an interesting point of microvariation, which falls outside of the scope of this paper. See discussion in Poulus & Msimang 1998; Halpert 2016.

not c-commanded by the matrix Licensor – an additional reason why preverbal subjects of adjunct clauses may not be augmentless. Further evidence and comparison with closely related languages must remain for future research.¹⁶

Finally, it should also be noted that temporal adjunct clauses do not exhibit long distance licensing by negation in general (50). In this respect, they differ from complement clauses, for instance, in which the licensing negation may be in a higher clause (51).

- (50) A-ngi-soze ngi-suke [ku-hlabela ***(u-)Sipho**]. *participial adjunct clause*
 NEG-1SG-AUX.FUT 1SG-leave 15S-sing A-1Sipho
 ‘I will not leave while Sipho is singing.’

- (51) A-ngi-funi [ukuthi ku-buye **(u-)Sipho**]. *subjunctive clause*
 NEG-1SG-want COMP 15S-come.SBJV A-Sipho
 ‘I don’t want Sipho to come.’

For this reason, the analysis of syntactic [–Aug] licensing in adjunct clauses can only be informed by data with *wh*-items, which do not additionally require licensing by negation. Whatever the explanation for this opacity of adjunct clauses to matrix negation, these facts ultimately support the broader claim that [–Aug] positions are not the same as focus positions in Ndebele (compare (50) with (36)).

4.2 Focused subject positions

Carstens & Mletshe 2016, following Sabel & Zeller 2006; Zeller 2008, account for the topical nature of preverbal subjects by assigning an anti-focus status to that position. Recall that they consider only indicative clauses. In order to account for the difference between indicative and other clause types in the middle column of (37), their analysis would have to stipulate that Spec,TP is an anti-focus position only in indicative clauses.

A different way to implement this distinction is to posit that the preverbal subject position in indicative clauses is not Spec,TP (unlike in the other clause types). Rather, it’s a higher position – call it Spec,TopP, following previous literature on the topical nature of preverbal subjects (Bresnan & Mchombo 1987; Letsholo 2002; Baker 2003; Henderson 2006; Schneider-Zioga 2000, 2007; Bliss & Storoshenko 2009; Pietraszko 2017; Carstens & Zeller to appear, among others). By hypothesis, narrowly focused phrases cannot be peripheral and must instead appear within the TP.

I propose that the indicative periphery in Ndebele has the shape in (52)-a. Subjunctive clauses are smaller, as shown in (52)-b. (For similar proposals of reduced periphery in certain clause types, see e.g. Zeijlstra 2008; Haegeman 2006, 2010, and for Zulu specifically, Carstens & Mletshe 2016.)

- (52) a. Indicative: [ForceP Comp [TopP subject [ΣP [FinP_{Ind} [TP]]]]]
 b. Subjunctive: [FinP_{Sbjv} Comp [TP subject]]]]

In the absence of ForceP, I assume that the complementizer *ukuthi* is located in Fin in subjunctive clauses. The two are illustrated in (53), which also shows the asymmetry between them in allowing preverbal focus:

- (53) a. Ngi-cabaga [ForceP ukuthi a-bafana (***kuphela**) ba-za-pheka.] *indicative*
 1SG-think COMP A-2boys (*only) 2S-FUT-cook
 ‘I think that (*only) the boys will cook.’
 b. Ngi-funa [FinP ukuthi a-bafana **kuphela** ba-pheke.] *subjunctive*
 1SG-want COMP A-2boys only 2S-cook.SBJV
 ‘I want it to be the case that only the boys cook.’

¹⁶ If it turns out that temporal adjuncts are indeed outside of the vP in Ndebele, conjoint morphology in this language would not indicate the absence of vP internal material, as previously proposed for Zulu (Van der Spuy 1993; Buell 2005, 2006; Halpert 2012, 2015).

Subjunctive clauses lack TopP, the only preverbal subject position being Spec,TP. Unlike Spec,TopP, Spec,TP is a position compatible with focus, deriving the contrast in the availability of *only* in (53).¹⁷

Independent evidence for the reduced periphery of subjunctive clauses comes from negation marking; in indicative clauses, negation is a prefix on the entire verbal complex, including the subject agreement prefix:

- (54) Ngi-cabaga ukuthi a-bafana **a**-ba-pheki. *indicative*
 1SG-think COMP A-2boys NEG-2S-cook
 ‘I think that the boys do not cook.’

I assume that this prefix is an exponent of Σ – the head of a left-peripheral polarity phrase, shown in (52)-a. The high negation marker is unavailable in subjunctive clauses (55-a), revealing the lack Σ P. Instead, negative morphology in this clause type appears below the agreement-hosting category (55-b).¹⁸

- (55) a. *Ngi-funa ukuthi a-bafana **a**-ba-pheki. *subjunctive*
 1SG-want COMP A-2boys NEG-2S-cook
 Intended: ‘I want the boys to not cook.’
 b. Ngi-funa ukuthi a-bafana ba-**nga**-pheki.
 1SG-want COMP A-2boys 2S-NEG-cook
 ‘I want the boys to not cook.’

Relative and participial adjunct clauses show the same reduced-size effects: in addition to allowing focused subjects, negation is obligatorily marked by the low negative prefix (56)-(57).

- (56) a. U-za-pheka [ngi-**nga**-ka-fiki]. *participial adjunct clause*
 2SG-FUT-cook 1SG-NEG-yet-arrive
 ‘You will cook before I arrive.’
 b. *U-za-pheka [**a**-ngi-(ka)-fiki].
 2SG-FUT-cook NEG-1SG-(yet)-arrive
 Intended: ‘You will cook before I arrive.’
 (57) a. U-a-hlabela i-ngoma [e-ngi-**nga**-yi-thandayo]. *relative clause*
 2SG-PST-sing A-9song REL-1SG-NEG-9O-like.REL
 ‘You sang the song that I don’t like.’
 b. *U-a-hlabela i-ngoma [{**a**}-e-{**a**}-ngi-yi-thandayo].
 2SG-PST-sing A-9song {NEG}-REL-{NEG}-1SG-9O-like.REL
 Intended: ‘You sang the song that I don’t like.’

It is possible that relative and participial adjunct clauses are even smaller than subjunctive clauses as they lack an overt complementizer.¹⁹ Their exact category is not crucial, however. What matters is that their

¹⁷ The topicality of preverbal subjects in Bantu has been shown to be different than the topicality of unambiguously dislocated phrases (including dislocated subjects). For instance, Halpert 2012; Van der Wal 2009 show (for Zulu and Makhuwa, respectively) that quantified DPs can appear as preverbal subjects, but cannot be dislocated. This is true in Ndebele as well. Preverbal subjects in these languages are then perhaps better characterized as resisting narrow focus (cf. Zeller (2008)’s antifocus feature). This means that Spec,TopP, the subject position in indicative clauses, is not a dislocated position. It’s a position that always attracts the subject DP, bringing it out of the focus field. See Bliss & Storoshenko 2009; Pietraszko 2017 for an analysis of Top⁰ as an agreement probe which, due to locality, always attracts the subject to its specifier. See Erlewine & Lim (2019) for a similar view of clefts in Bikol.

¹⁸ See Buell 2005; Pietraszko 2018 for analyses of negation in Zulu and Ndebele respectively, proposing two Σ Ps/NegPs: one in the left periphery and the other below T.

¹⁹ The relative marker *a* (and its class-covarying variants) has been analyzed as the relative complementizer (Khumalo 1992; Demuth & Harford 1999; Zeller 2004, 2006; Cheng 2006; Henderson 2006, 2007, among others). For a different treatment of the *a* marker, namely as a nominal linker, see Pietraszko 2019. This analytical choice is not important here.

periphery is at least as reduced as that of subjunctive clauses, with the consequence that preverbal subjects appear in Spec,TP – a focus-compatible position.

Finally, since in-situ subjects are not in Spec,TopP, there is no restriction on their non-topical nature. We then arrive at the distribution of focused subjects in (37) (middle column), where the ban on focused subjects holds only for preverbal subjects of indicative clauses.

We have seen in this section that the non-overlapping set of contexts for [–Aug] and focused DPs follow from Halpert’s case licensing theory for [–Aug] nominals and a fairly straightforward view of the left periphery in various clause types. It is important to keep in mind that the main claim, i.e. that [–Aug] cannot be reduced to focus, holds irrespective of what analysis we adopt to derive licit focus positions.

5 Conclusion

I demonstrated that reducing [–Aug] licensing in Ndebele to focus licensing is impossible. I further showed that the case-theoretic approach to augmentless nouns proposed in Halpert 2012, 2015 predicts exactly the contexts in which [–Aug] and focus come apart: preverbal subject positions of clauses which do not require their subjects to be topical (all but indicative clauses). Importantly, [–Aug] cannot be reduced to other semantic categories, either: augmentless nouns are not systematically NPIs (wh-items don’t need negation to be augmentless), nor are they invariably indefinites (proper names can be augmentless, as well). This means that, despite their frequent interpretation as NPIs, indefinites and focused DPs, augmentless nominals are coextensive with none of them.

The question remains why focus and [–Aug] positions show significant overlap in Ndebele. I believe this is due to independent properties of the language, namely that all DPs that are left-peripheral or right-dislocated are necessarily topical and focus tends to be assigned in situ.²⁰ Since argument licensing is vP-internal, augmentless DPs are most likely to be either in narrow focus or part of wide predicate focus. Being TP-external, topic phrases can never be licensed as augmentless. Spec,TP – the preverbal subject position in reduced clause types – is the only position that is neither dislocated (topical) nor c-commanded by the licenser (augmentless). It is, then, only in this narrow structural window that we can see the coming apart of argument licensing and focus.

A further cross-Bantu issue remains: why does the lack of augment so often correlate with indefiniteness, NPI-hood and focus in this language family? While a more insightful answer is likely possible, it is not uncommon for case to correlate with such interpretive effects (differential argument marking, Genitive of Negation in Russian (Babby 1980; Babyonyshev 1996 a.o.). Moreover, it is not my conclusion that [–Aug] licensing is structural case in all Bantu languages. What I do conclude is that Ndebele is a Bantu language in which nominals with special morphology are restricted to a structurally predicable set of positions, and that, despite many attempts, this distribution has not been shown to be coextensive with the distribution of any semantically defined class of DPs. This I consider compelling evidence for the existence of structural case.

References

- Adams, N. (2010). *The Zulu Ditransitive Verb Phrase*. PhD thesis, University of Chicago.
- Asiimwe, A. (2014). *Definiteness and specificity in Runyankore-Rukiga*. PhD thesis, Stellenbosch: Stellenbosch University.
- Babby, L. (1980). *Existential sentences and negation in Russian*. Ann Arbor, MI: Karoma Publisher, Inc.
- Babyonyshev, M. (1996). *Structural Connections in Syntax and Processing: Studies in Russian and Japanese*. PhD thesis, MIT.
- Baker, M. (2003). Agreement, dislocation, and partial configurationality. In H. H. Andrew Carnie & M. Willie (Eds.), *Formal approaches to function in grammar* (pp. 107–132). Amsterdam: John Benjamins.

²⁰ The only construction that resembles focus fronting is in fact a cleft, in which the focused phrase follows an existential predicate.

- Baker, M. (2008). *The Syntax of Agreement and Concord*. Cambridge University Press.
- Bittner, M. & Hale, K. (1996). The structural determination of Case and Agreement. *Linguistic Inquiry*, 27(1), 1–68.
- Bliss, H. & Storoshenko, D. R. (2009). Grammaticization of topic in Shona. Paper presented at the 3rd International Conference on Bantu Linguistics (BANTU 3), Tervuren, Belgium, March 24–28.
- Bobaljik, J. D. (2008). Where's phi? Agreement as a post-syntactic operation. In D. Harbour, D. Adger, & S. Béjar (Eds.), *Phi Theory: Phi-features across interfaces and modules* (pp. 295–328). Oxford: Oxford University Press.
- Bresnan, J. & Mchombo, S. A. (1987). Topic, pronoun, and agreement in Chichewa. *Language*, (pp. 741–782).
- Buell, L. C. (2005). *Issues in Zulu Verbal Morphosyntax*. PhD thesis, University of California Los Angeles.
- Buell, L. C. (2006). The Zulu conjoint/disjoint verb alternation: focus or constituency? *ZAS Papers in Linguistics*, 43, 9–30.
- Buell, L. C. (2009). Evaluating the immediate postverbal position as a focus position in Zulu. *Selected Proceedings of the 38th Annual Conference on African Linguistics*, (pp. 166–172).
- Buell, L. C. & de Dreu, M. (2013). Subject raising in Zulu and the nature of PredP. *The Linguistic Review*, 30(3), 423–466.
- Carstens, V. (2001). Multiple Agreement and Case Deletion: Against φ -incompleteness. *Syntax*, 4(3), 147–163.
- Carstens, V. (2011). Hyperactivity and hyperagreement in Bantu. *Lingua*, 121(5), 721–741.
- Carstens, V. & Diercks, M. (2013). Parameterizing case and activity: Hyper-raising in Bantu. In M. Diercks, S. Kan, C. Moore-Cantwell, & R. Staubs (Eds.), *Proceedings of the 40th Annual Meeting of the North East Linguistic Society* (pp. 99–118). Amherst: University of Massachusetts Graduate Linguistic Student Association.
- Carstens, V. & Mletshe, L. (2015). Radical Defectivity: Implications of Xhosa expletive constructions. *Linguistic Inquiry*, 46(2), 187–242.
- Carstens, V. & Mletshe, L. (2016). Negative concord and nominal licensing in Xhosa and Zulu. *Natural Language and Linguistic Theory*, 34(3), 761–804.
- Carstens, V. & Zeller, J. (to appear). Nguni phrase-final focus particles and antisymmetry theory. *Linguistic Inquiry*.
- Cheng, L. L.-S. (2006). Decomposing Bantu relatives. In A. R. D. Christopher Davis & Y. Zabbal (Eds.), *Proceedings of NELS 36* (pp. 197–216). Amherst: GLSA.
- Cheng, L. L.-S. & Downing, L. (2009). Where's the topic in Zulu? *The Linguistic Review*, 26, 207–238.
- Chomsky, N. (1995). *The Minimalist Program*. Current Studies in Linguistics. Cambridge, MA: MIT Press.
- Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels, & J. Uriagereka (Eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik* (pp. 89–155). Cambridge, MA: MIT Press.
- Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (Ed.), *Ken Hale: A life in language* (pp. 1–52). Cambridge, MA: MIT Press.
- Cinque, G. (1999). *Oxford Studies in Comparative Syntax*, chapter Adverbs and functional heads: A cross-linguistic perspective. Oxford University Press.
- de Dreu, M. (2008). The internal structure of the Zulu DP. Master's thesis, Universiteit Leiden.
- Demuth, K. & Harford, C. (1999). Verb raising and subject inversion in Bantu relatives. *Journal of African Languages and Linguistics*, 20, 41–62.
- Diercks, M. (2012). Parameterizing case: evidence from Bantu. *Syntax*, 15(3), 253–286.
- Diercks, M. & Carstens, V. (to appear). Bantu syntax. In *The Oxford Guide to the Bantu Languages*, <https://ling.auf.net/lingbuzz/003902>. Oxford University Press Oxford.
- Erlewine, M. Y. & Lim, C. (2019). Bikol clefts and topics and the austronesian extraction restriction. *Ms*.

- National University of Singapore.
- Giusti, G. (1997). The categorial status of determiners. In L. Haegeman (Ed.), *The New Comparative Syntax* (pp. 95–124). London: Longman.
- Haegeman, L. (2006). Conditionals, factives and the left periphery. *Lingua*, 116, 1651–1669.
- Haegeman, L. (2010). The internal syntax of adverbial clauses. *Lingua*, 120, 628–648.
- Halpert, C. (2012). *Argument Licensing and Agreement in Zulu*. PhD thesis, MIT.
- Halpert, C. (2015). *Argument licensing and agreement*. Oxford: Oxford University Press.
- Halpert, C. (2016). Prosody/syntax mismatches in the Zulu conjoint/disjoint alternation. In J. van der Wal & L. M. Hyman (Eds.), *The Conjoint/Disjoint Alternation in Bantu* (pp. 329–349). Walter de Gruyter.
- Harford Perez, C. (1985). *Aspects of complementation in three Bantu languages*. PhD thesis, University of Wisconsin, Madison, WI.
- Henderson, B. (2006). Multiple agreement and inversion in Bantu. *Syntax*, 9(3), 275–289.
- Henderson, B. M. (2007). The syntax of agreement in Bantu relatives. *Texas Linguistics Society*, 9, 167–184.
- Hyman, L. & Katamba, F. (1993). The augment in Luganda: syntax or pragmatics. In S. Mchombo (Ed.), *Theoretical aspects of Bantu grammar*, volume 1 (pp. 209–256). Stanford: CSLI Publications.
- Kayne, R. (1981). Two notes on the NIC. In L. B. Adriana Belletti & L. Rizzi (Eds.), *Theory of markedness in generative grammar* (pp. 317–346). Pisa: Scuola Normale Superiore.
- Khumalo, J. S. (1992). The morphology of the direct relative in Zulu. In D. F. Gowlett (Ed.), *African linguistic contributions* (pp. 210–226). Pretoria: Via Africa.
- Kornfilt, J. & Preminger, O. (2015). Nominative as *no case at all*: An argument from raising-to-ACC in Sakha. In A. Joseph & E. Predolac (Eds.), *Proceedings of the 9 Workshop on Altaic Formal Linguistics (WAFL 9)*, number 76 in MIT Working Papers in Linguistics (pp. 109–120). Cambridge, MA: MITWPL.
- Letsholo, R. M. (2002). *Syntactic domains in Ikalanga*. PhD thesis, University of Michigan.
- Ndayiragije, J. (1999). Checking Economy. *Linguistic Inquiry*, 30, 399–444.
- Pietraszko, A. (2017). Clause size and transparency in Ndebele. *Poster presented at the 91st Annual Meeting of the LSA, Jan 2017, Austin TX*.
- Pietraszko, A. (2018). Auxiliary vs INFL in Bantu. The syntactic and phonological complexity of Ndebele verbs. *Natural Language and Linguistic Theory*, DOI: 10.1007/s11049-017-9373-0, 36(1), 265–308.
- Pietraszko, A. (2019). Obligatory CP nominalization in Ndebele. *Syntax*, 22, 66–111.
- Poulos, G. & Msimang, C. T. (1998). *A linguistic analysis of Zulu*. Cape Town: Via Africa/Collegium Educational Publishers.
- Preminger, O. (2014). *Agreement and its failures*. Number 68 in Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- Progovac, L. (1993). Non-augmented NPs in Kinande as Negative Polarity Items. In *Theoretical Aspects of Bantu Grammar*, volume 1 (pp. 257–270). Stanford, CA: CSLI.
- Rackowski, A. & Richards, N. (2005). Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry*, 36(4), 565–599.
- Sabel, J. & Zeller, J. (2006). Wh-question formation in Nguni. In *Selected Proceedings of the 35th Annual Conference on African Linguistics: African Languages and Linguistics in Broad Perspective* (pp. 271–283).
- Schneider-Zioga, P. (2000). Anti-agreement and the fine structure of the left edge. In M. I. Ruixi Ai, Francesca Del Gobbo & H. Ono (Eds.), *Working papers in linguistics*, volume 6 (pp. 94–114). Irvine, CA: Department of Linguistics, University of California.
- Schneider-Zioga, P. (2007). Anti-agreement, anti-locality and minimality. The syntax of dislocated subjects. *Natural Language and Linguistic Theory*, 25(2), 403–446.
- Sheehan, M. & Van der Wal, J. (2018). Nominal licensing in caseless languages. *Journal of Linguistics*, (pp. 1–63).
- Taraldsen, K. T. (2010). The nanosyntax of Nguni noun class prefixes and concords. *Lingua*, 120(6), 1522–1548.

- Van der Spuy, A. (1993). Dislocated noun phrases in Nguni. *Lingua*, 90(4), 335–355.
- Van der Wal, J. (2009). *Word order and information structure in Makhuwa-Enahara*. PhD thesis, Universiteit Leiden.
- Van der Wal, J. (2015). Evidence for abstract Case in Bantu. *Lingua*, 165, 109–132.
- Van der Wal, J. & Namyalo, S. (2016). The interaction of two focus marking strategies in Luganda. In S. P. Doris Payne & M. Bosir (Eds.), *Diversity in African languages* (pp. 355–377). Berlin: Language Science Press.
- Vergnaud, J.-R. (1977). Open letter to Chomsky and Lasnik. April 1977, available at <http://ling.auf.net/lingBuzz/000461>.
- Visser, M. (2008). Definiteness and specificity in the isiXhosa Determiner Phrase. *South African Journal of African Languages*, 28(1), 11–29.
- von Staden, P. (1973). The initial vowel in Zulu. *African Studies*, 32(3), 163–181.
- Zeijlstra, H. (2008). Negative concord is syntactic agreement. Ms. University of Amsterdam.
- Zeller, J. (2004). Relative clause formation in the Bantu languages of South Africa. *Southern African Linguistics and Applied Language Studies*, 22(1-2), 75–93.
- Zeller, J. (2006). On the relation between noun prefixes and grammaticalisation in Nguni relative clauses. *Studia Linguistica*, 60(2), 220–249.
- Zeller, J. (2008). The subject marker in Bantu as an antifocus marker. *Stellenbosch Papers in Linguistics*, 38, 221–254.
- Ziervogel, D. (1967). *A Handbook of the Zulu language*. Pretoria: J.L. van Schaik.