

OGBL: Syntax

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Abstract

This chapter offers an overview of syntactic research on Bantu languages, highlighting notable syntactic characteristics of Bantu languages as well the kinds of theoretical and analytical questions that they have raised. Issues covered include: the morphosyntax of nominal and verbal morphology (inflectional and derivational), non-canonical word orders (i.e. inversion constructions) typologically significant properties of agreement, analytical and theoretical questions raised by the distribution of noun phrases (including the proproperties of augmented and non-augmented noun phrases), the syntax of information structure (topic/focus), and brief comments on the properties of A'-constructions (e.g. questions, relative clauses, and clefts).

1 Introduction

The Bantu language family is large and diverse both geographically and linguistically. Nonetheless, certain clusters of distinctive syntactic properties often recur across Bantu languages. This chapter focuses on those aspects of Bantu syntax that are common to many languages and that have raised the most pervasive and persistent theoretical questions, outlining describing the phenomena and the approaches that have been taken towards them.¹ Topics addressed include: major properties of the verbal and nominal domains, including inflectional morphology and some major derivational processes such as grammatical-function-changing

¹ See van der Wal (2015b) for another overview of Bantu syntax.

morphology on the verb (§2), significant properties of agreement in the Bantu language family (§3), Case-theoretic anomalies regarding the distribution of argument noun phrases (§4), a topography of information structure positions clause-internally (§5), atypical word order (discussed throughout, but also see §5.5.2), and a brief discussion of A'-constructions (§6). We ground our work within the generative syntactic framework of the Minimalist Program and its predecessors, though some of the work discussed here was written in other frameworks.

2 Categories and phrases

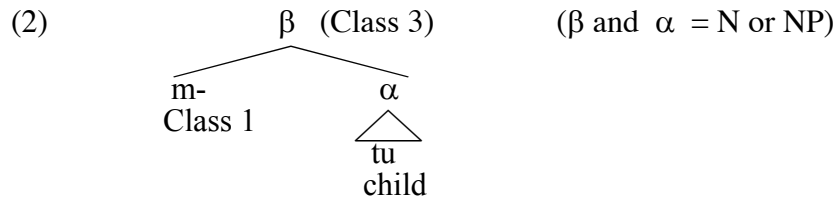
2.1 Nouns and noun class

Bantu nouns are partitioned into noun classes, expressed in nominal prefixes (Meinhoff 1906). To illustrate, noun stems in Swahili which take the Class 1 singular prefix also take the Class 2 prefix in the plural, singular nouns bearing the Class 7 singular prefix pluralize by means of the Class 8 prefix; and so on (see (1)).

(1)	a. m-toto/wa-toto	b. ki-tabu/vi-tabu	Swahili (G41)²
	1-child/2-child	7-book/8-book	
	'child/ren'	'book/s'	

How class is best represented has been a topic of lively debate. Sproat (1985), Myers (1987), Bresnan and Mchombo (1995) argue that class is a property of the prefixes themselves, which are heads, selecting N(P)s (see (2)).

² Bantu language zone classifications from Maho (2009), a revision of Guthrie (1971).

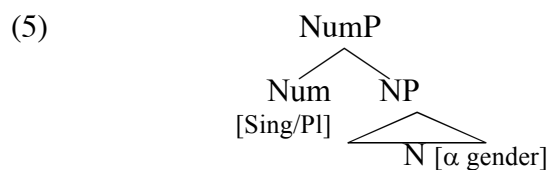


Carstens (1991, 2008) points out that the default patterns of singular and plural formation for each noun are not accounted for by (2), nor are combinatorial restrictions like (3).

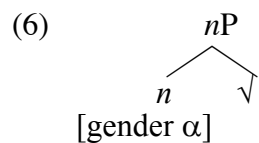
- (3)
- | | | | |
|--|----------|------------|----------------------|
| | a. *n-tu | b. *mi-atu | Swahili (G41) |
| | 9-person | 3-shoe | |
| | ‘person’ | ‘shoe’ | |

Carstens argues instead that noun class prefixes are gender-specific spellings out of number features (see (4) and also Guthrie (1948), Corbett & Mtenje (1987), Corbett (1991) on Bantu noun class as gender). While gender is a lexical property of nouns, number features are added in the syntax through morphological amalgamation of N with the head of a Number Phrase (5).

- (4)
- | | | |
|----------|-------------------|--------------------|
| singular | \leftrightarrow | m- / __gender 1/2 |
| plural | \leftrightarrow | wa- / __gender 1/2 |
| etc. | | |



Approaching these questions from the standpoint of Distributed Morphology theory, Kramer (2015), Ferrari (2005), Kihm (2005), and Fuchs and van der Wal (2018) analyze noun class as a property of the categorizer *n* which combines with acategorial roots to yield nominal expressions (see (6)). Writing about gender systems in general, Acquaviva (2009) and Kramer (2015) propose that *licensing conditions* limit root+*n* combinations (explaining facts like (3)).



In contrast, Déchaine et al (2014) argue that different noun class prefixes associate to distinct syntactic positions in the nominal spine, including K, D, and nominal aspect. Taraldsen et al (2018) argue that noun class prefixes in Southern Bantu languages are in fact nominal phrasal categories that lexicalize specifier positions.³

2.2 Nominal modifiers

Adjectives and numerals in Bantu languages are post-nominal and agree in noun class with the head noun:

- (7) a. ki-atu ki-zuri b. vi-atu vi-zuri **Swahili (G41)**
 7-shoe 7-good 8-shoe 8-good
 'nice shoe' 'nice shoes'

³ §4.4 discusses the augment/pre-prefix, an additional layer of nominal structure found on nouns in some Bantu languages.

- (8) a. ki-atu ki-moja b. vi-atu vi-wili
7-shoe 7-one 8-shoe 8-two
'one shoe' 'two shoes'

Demonstratives also agree with the head noun. The default pattern is a post-nominal position, but some Bantu languages permit pronominal demonstratives. In languages such as Swahili, these indicate discourse-familiarity:

- (9) a. m-tu huyu b. wa-tu ha-wa c. huyu m-tu
1-person 1this 1-person 2-this 1this 1-person
'this person' 'these people' 'this person' (that we were
speaking of)

Some Bantu languages also have a quantifier that occurs pronominally, such as Logoori *vuri* 'every/each':

- (10) Vuri muundu a-syeevi⁴ **Logoori (JE41)**
Every 1-person 1SM-dance-PST
'Every person danced.' (Landman 2016: 220)

⁴ For language examples from other sources we re-gloss according to this volume's conventions, where possible.

Any instances where the source glossing is not transparent are left with the original glosses.

2.3 The syntax of noun phrases

Apart from the few exceptions above, the noun is initial in Bantu noun phrases. Ordering among post-nominal modifiers tends to be flexible as the Shona data in (11) attest (from Carstens 2017):

- (11) a. *zvi-punu zvi-kuru zvi-tatu izvo.* [N Adj Num Dem] **Shona (S10)**
 8-spoons 8-big 8-three 8those
- b. *izvo zvi-punu zvi-kuru zvi-tatu.* [Dem N Adj Num]
- c. *zvi-punu izvo zvi-kuru zvi-tatu.* [N Dem Adj Num]
- d. *zvi-punu zvi-tatu zvi-kuru izvo.* [N Num Adj Dem]
- e. *izvo zvi-punu zvi-tatu zvi-kuru.* [Dem N Num Adj]
- f. *zvi-punu izvo zvi-tatu zvi-kuru.* [N Dem Num Adj]

Carstens (1991) proposes that the general pre-modifier position of Bantu nouns results from head movement of the noun to adjoin to a null determiner. Pre-nominal quantifiers head a QP and select DP complements; pre-nominal demonstratives occupy Spec, DP. (12) illustrates Carstens's representation for noun phrases in Swahili, where modifiers appear in the so-called direct order. Carstens (2008) adds free left- or right-adjunction for modifiers to account for their variable positions in Shona.

- (12) [_{QP} Q [_{DP} N+D [_{XP} Dem...Num... [_{NP} Adj *t_N*]]]]

In lieu of the noun-raising approach to similar word order facts, Branagan and Davis (2018) argue that in Chichewa, NP raises to Spec of DP, explaining Mchombo's (2006) *discontinuous noun phrases* as NP exiting the DP from its Spec to a fronted position.

Similar morpheme ordering occurs in Grassfields Bantu languages despite clear morphological differences: in Makaa, verbal inflection is not agglutinating in the same way as in Kinyarwanda or Kilega, instead displaying more analyticity. This is exemplified in (16), where an adverb may appear between the negation morpheme and the aspect morpheme:

- (16) Mò kú nyingǎ ñgə wáámbilə i-fǎmbó **Makaa (A83)**
I NEG.HORT again PROG clear 8-field
'I am not again clearing the fields.' (Heath 2003: 345)

A long tradition of research analyzes this Bantu verbal morphological structure as syntactically assembled, even in strongly agglutinating languages (see Baker's 1985 'Mirror Principle'). Keach (1986) argues based on stress assignment and the position of relativization morphology in Swahili (G41) that a structural boundary exists following the tense/aspect marker, which she locates in a clause-medial INFL node.⁶ The Bantu verbal form is used by Julien (2002) to argue for syntactic derivation of words following Kayne's (1994) Linear Correspondence algorithm. Julien proposes that verb roots in Shona (S10) raise to the middlefield of the clause, above the syntactic heads generating verbal derivational suffixes but below inflectional prefixes. The result of the application of the LCA (leaving details aside) is that verbal derivational suffixes are formed via head-adjunction and are syntactic constituents, but inflectional prefixes become part

⁶ Nkonyani (1999) argues the same, noting the tendency of speakers to make the orthographic mistake of writing Swahili subject markers and tense separately from the verbal material that follows.

of a “word” with the rest of the verb by post-syntactic phonological processes.⁷ Myers (1990) shows that outer derivational suffixes in Shona take scope over inner ones (i.e. right scopes over left); this inversion of scope and linear order is explained if the structurally lowest suffixes are incorporated into the verb earlier than structurally higher ones, as Julien proposes (i.e. if a suffix X precedes suffix Y, X started structurally *lower* than Y). In contrast, if a Bantu prefix X precedes prefix Y then X is structurally *higher* than Y, under this approach.

2.5 Object marking

Most narrow Bantu languages allow discourse-familiar objects to be represented via one or more pre-stem *object markers* (OM) on the verb, as in the Kinyarwanda (14) and the Chichewa (N31) example in (17).

- (17) Njũchi zi-ná-wá-lum-a a-lenje. **Chichewa (N31)**
 10bees 10SM-PST-2OM-bite-FV 2-hunters
 ‘The bees bit them, the hunters.’ (Bresnan and Mchombo 1987: 744)

Variable properties include the number of OMs tolerated, where OMs appear on the verbal form, whether OMs can appear in extraction contexts, and the impact of OMs on meanings (Bresnan and Mchombo 1987; Henderson 2006; Riedel 2009; Bax and Diercks 2012; Marlo 2014, 2015; Zeller 2014; Ranero to appear, Sikuku et al to appear; helpful overviews are available in van der Wal 2017b, Marlo 2014, 2015; Marten and Kula 2012). Research in the 1970s and 1980s

⁷ There is a large collection of work on syntactic derivation of morphology in Bantu (Taraldsen et al 2018; Abels and Muriungi 2008; Muriungi 2014; Zeller 2017, *inter alia*).

explored complex hierarchies of person, animacy, and thematic role that interact to determine OM marking patterns when there are multiple objects (Hyman and Morolong 1977, Duranti 1979, Hyman and Duranti 1982). Anticipating the *Person-Case Constraint* on clitic combinations (Bonet 1991), these studies documented a family of fine-grained co-occurrence restrictions including *him_{BENEF}-me/you_{THEME} and more. For example, (18) demonstrates a requirement that when two third-person plural OMs co-occur, a human-referring one (here, *ba*) must appear closest to the verb. Given this order two interpretations are possible, but with the order reversed, the inanimate *bi* cannot be theme. Patterns of this kind present continuing puzzles for generative analyses.

(18) a. A-ka-bi-ba-léét-el-a

Shambala (G23)

1SM-PST-8OM-2OM-bring-APPL-FV

‘He brought them (*bi*) to them (*ba*)’

‘He brought them (*ba*) to them (*bi*)’

b. A-ka-ba-bi-léét-el-a

1SM-PST-2OM-8OM-bring-APPL-FV

‘He brought them (*ba*) to them (*bi*)’

*‘He brought them (*bi*) to them (*ba*)’

OMs in Bantu languages are generally analyzed as either incorporated pronouns or agreement morphemes depending on the licitness of “doubling” (co-occurrence of an OM with an *in situ* object) and Henderson (2006) argues on this basis for such a bifurcation. Sambiaa as analyzed in

Riedel (2009) exhibits agreement-like OMs: (19) shows that both objects of a double object construction may be doubled:⁸

- (19) N-za-chi-m-nka ng'wana ki-tabu Sambia (G23)
1SG.SM-PRF.DJ-7OM-1OM-give 1child 7-book
'I gave the child a book.' (Riedel 2009: 106)

In contrast, Lubukusu allows only one OM on the verb, which can double an *in situ* object only under specific pragmatic conditions: doubling an object is not acceptable in neutral pragmatic contexts, suggesting that OMs are (usually) incorporated pronouns.

- (20) n-á-(*ka)-mu-a wéékésú ká-ma-lwa. Lubukusu (JE31c)
1SG.SM-REM.PST-(*6OM)-1OM-give-FV 1-Wekesa 6-6-beer
*‘I gave Wekesa the beer.’
OK: ‘I DID give Wekesa the beer.’ (in appropriate contexts) (Sikuku et al to appear: 40)

Like Lubukusu, Zulu disallows doubling an *in situ* object; OMs only co-occur with objects if the object is dislocated ((21)b).

⁸ Riedel (2009) demonstrates that the direct object in Sambia may be doubled only if the applied (indirect) object is OMed as well. erous

(21) a. Ngi-(***m**)-theng-el-a **u-m-ngane** **wa-mi** le moto namhlanje **Zulu**

1SG.SM-(*1OM)-buy-APPL-FV AUG-1-friend 1POSS-my 9DEM 9car today

‘I’m buying this car for my friend today.’

b. Ngi-**m**-theng-el-a le m-oto **u-m-ngane** **wa-mi** namhlanje

1SG.SM-1OM-buy-APPL-FV 9DEM 9-car AUG-1-friend 1POSS-my today

‘I’m buying this car for my friend today.’ (Zeller 2014: 351)

The lack of *in situ* doubling in Zulu and Lubukusu makes the OMs in both languages seem similar to Indo-European (IE) pronominal clitics (on which see Kramer 2014, Anagnostopoulou 2017 for overviews of a highly active research program). But as Henderson (2006) points out, object markers that are pronominal clitics ought not to be able to occur in object relative clauses, as the gap in the relative clause and the object marker would compete for the same thematic position inside the relative clause. Yet Zeller (2014) demonstrates that despite ruling out *in situ* doubling, Zulu requires OMs in relative clauses.

This microvariation in the OM domain motivates Zeller’s (2014) proposal that there are three kinds of OMs in Bantu languages: in addition to agreement morphemes (which may double an *in situ* objects) and pronominal clitics (which may not double an *in situ* object), OMs in languages like Zulu are agreement reflexes of A’-movement, which emerge when an object is relativized or dislocated.⁹

⁹ See van der Wal (2015a) for something of a hybrid pronoun/agreement approach based on Roberts’ (2010) theory of clitics.

There is also a growing body of work on information-structure correlates of OM doubling in Bantu such as Bax and Diercks (2012), Zeller (2012, 2014, 2015), Ranero (to appear), and Sikuku et al (to appear). Findings on interpretive consequences of OM doubling are convergent with findings on clitic doubling in Greek and Spanish (Anagnostopoulou 1994; Ordonez 1997; Kalluli 2000, 2008, 2016; Schneider-Zioga 1994), though the precise degree of similarity remains to be seen.

In many languages, reflexive predicates are also represented via a reflexive marker that occurs in the same morphological position that object markers do, whereas reciprocalization is generated via a post-verbal suffix. Tuki has two reflexive strategies, a freestanding reflexive form in (22)a and a reflexive marker that prefixes on the verb form in (22)b.

(22) a. Mbáraà a-mu-én-a omwá-máte **Tuki (A601)**

Mbara 1SM- PST1-see-FV 1-mate

‘Mbara saw himself/herself.’

b. Mbáraà a- mu- a- v- én-a

Mbara 1SM-PST1-RFM-CONS-see-FV¹⁰

‘Mbara saw himself/herself.’ (Bilola 2012: (1),(3))

Safir’s (2018) Afranaph project explores reflexive and reciprocal predicates in detail, providing extensive data and descriptions of the systems of anaphoric relations in a wide variety of African languages, including many Bantu languages: Bemba (M42), Bulu (A74), Cinsenga (N21),

¹⁰ The [v] that appears before the verb root is an epenthetic consonant.

Fe'efe'e (Delmon), Ikalanga (S16), Kinande (JD42), Kirundi (JD62), Limbum, Lubukusu (JE31c), and Tuki (A601).

2.6 The syntax of grammatical function changing morphology

Bantu languages are well known for having derivational suffixes on verbs that alter the argument structure of the predicate (Schadeberg 2003; Good 2007). Among the most prominently discussed affixes are the CARP affixes—causative, applicative, reciprocal, and passive (Hyman 2003).¹¹ Additional relevant derivational suffixes include reversive, stative/neuter, pluractional, intensive, among others (see Schadeberg 2003, and the language overview chapters in this volume and Nurse and Philippson 2003).

(23) Verbal derivational morphology in Babole (C101, Republic of Congo, Brazzaville)

-am-	'passive'	bá≠bímb- ám -í (nà Serge)	'They were hit (by Serge).'
-el-	'applicative'	à≠bímb- éd -í àmé Serge	'He hit Serge for me.'
-edz-	'intensive'	à≠bímb- édz à Serge	'He really hit Serge.'
-y-	'causative'	à≠bík- y -á Serge	'He caused Serge to become well (healed him).'
-ol-	'reversive'	tó≠kánd- òl -è òí	'Let's remove him from dominating (us).'
-an-	'reciprocal'	Bisé na Serge to≠bímb- án -í	'Serge and us guys hit each other.'

(Leitch 2003: 415)

¹¹ Space prohibits a full discussion, but the interested reader can consult the literature for work on each. For causatives, see Baker et al (2012) on Lubukusu, Muriungi (2014) on Kĩitharaka, Givón (1976), and Pylkkänen (2008) on Luganda and Bemba. Safir's (2018) Afranaph project has the largest collection of work on reciprocals, while also documenting a range of relevant facts on causatives. For recent work on passives, see Kawasha (2007a), Bostoen and Mundeke (2011), and Kula and Marten (2010). Passive has long been employed as a diagnostic for probing object properties in Bantu (Hyman and Morolong 1977, Hyman and Duranti 1982 among others).

Applicatives perhaps hold a special place because of the quantity of detailed research on them and because of their impact beyond Bantu on theoretical analyses of double object constructions. An applicative morpheme appears post-verbally in most Bantu languages and adds an argument that can take many different roles, including benefactive, malefactive, purpose, instrument, location, goal, and source (see Jeong 2007 for a thorough summary).¹²

(24) N-ä-ï-zrìc-í-à m-bùya **Chaga (E60) benefactive**
 FOC-1SM-PRON-run-APPL-FV 9-friend
 ‘S/he is running for a friend.’

(25) Nd-áká-úray-ír-á nyoká pa-dombó **Chaga (E60) malefactive**
 1SG.SM-PST-steal-APPL-FV 1-mother 9-money
 ‘I stole money from my mother.’ (Pylkkänen 2002)

(26) Mavuto a-na-umb-ír-a mpeni mtsuko **Chichewa (N31) instrumental**
 Mavuto 1SM-PST-mold-APPL-ASP knife waterpot
 ‘Mavuto molded the waterpot with a knife.’ (Baker 1988: 230)

¹² Jerro (2016) demonstrates a degree of variability in applicative semantics (and whether the applicative adds an argument) based on the semantic properties of the verb itself.

(27) E-nyuni y-emb-el-a khu-mu-saala **Lubukusu (JE31c) locative**

9-bird 9SM-PST.sing-APPL-FV 17-3-tree

‘A bird sang on/in the tree.’ (Diercks 2011a: 73)

One extensive line of research on applicative double-object constructions has been the exploration of (a)symmetry (Marantz 1984, 1993; Baker 1988; Bresnan and Moshi 1990; McGinnis 2001a,b; Jeong 2007; Henderson 2018; Jerro to appear), in that applicative constructions within and across languages can differ with respect to whether both objects or only the benefactive object possess canonical object properties (e.g. object marking, passivization, word order, reciprocalization: see Riedel this volume for an overview).

Pylkkänen (2008) builds on an observation from Marantz (1993) that while applicative constructions all (usually) add arguments, they differ with respect to some subtle aspects of their semantics (the high/low distinction). English double object constructions like *Alex baked Maya a cake* necessarily include an interpretation that the indirect object is the recipient of the theme object (i.e. Maya didn’t just benefit from the cake-baking, but actually received the cake): these are *low applicatives*. In various benefactive and instrumental applicative constructions (*high applicatives*), no such requirement holds. The quintessential diagnostic is that high applicatives are possible with unergative verbs as in the Chaga example in (24), whereas the English equivalent is not possible (**Alex ran Maya* to mean ‘Alex ran for Maya.’). Pylkkänen proposes that high applicatives merge above VP (relating to the entire event), but that low applicatives directly relate the indirect object and direct object.

Pylkkänen assumes a connection between high applicatives and symmetry (and low applicatives and asymmetry), and McGinnis (2001a, b) builds on this to explain (a)symmetry

based on the phasal properties of ApplPs. Jeong (2007) observes that there is in fact a double dissociation – some high applicatives are asymmetrical (e.g. direct objects in Kinyarwanda high applicatives cannot passivize) and some low applicatives are symmetrical (e.g. direct objects in Haya and Kinyarwanda low applicatives *can* passivize). In response she proposes that high applicatives are those that relate an individual to an event (a semantic definition), and low applicatives relate an individual to another individual. This is implemented syntactically such that high applicatives merge directly with the verb or a projection of the verb, but it need not be a single kind of syntactic structure. This allows Jeong to propose multiple distinct kinds of syntactic structures that can produce applicatives (in addition to ApplPs), including PPs merged as the complement to the verb, or as the specifier to the verb. Henderson (2018) extends Jeong’s logic to propose yet another additional high applicative structure where a high applicative is formed by merging an applicative head directly with the V head, without heading its own projection (i.e. without licensing an additional VP-internal argument, which can instead only be overtly added as a peripheral topic or discourse topic). He uses this analysis explain the fact that in Chimwiini (G412), instrumental applicatives have systematically opposite properties of (a)symmetry as compared to benefactive applicatives (with respect to word order, object marking, passivization, and A’-movement of objects), with instrumental arguments showing atypical object properties.

2.7 Linkers

A few Bantu languages exhibit vP-internal morphology called a *linker* -- a morpheme that separates two post-verbal expressions. In Kinande, either expression may precede the linker and control agreement on it.

(28) a. Mo-n-a-hir-ir-e oku-gulu k'- omo-ki-huna **Kinande (JD42)**

AFF-1SM-PST-put-APPL-FV 15-leg LK.15 18-7-hole

‘I put the leg in the hole.’

b. Mo-n-a-hir-ire omo-kihuna m'- oku-gulu

AFF-1SM-PST-put-APPL-FV 18-hole LK.18 15-leg

‘I put the leg in the hole.’ (Baker and Collins 2006: 311)

Baker and Collins (2006) propose that the head of a *vP*-internal Linker Phrase (LkP) is a Case-licenser to one of the DPs inside *vP*, and attracts either VP-internal DP to its specifier. They suggest that Kinande’s linker is not sensitive to hierarchical relations because Chomsky’s (1995) Minimal Link Condition (MLC) is parameterized such that Kinande can freely violate avoid expected locality constraints based on structural hierarchy. Schneider-Zioga (2015a,b) points out that both of these claims present problems. First, linkers in Kinande may occur between a single object and an adverb:¹³

(29) Kámbalé átuma ebarúhá yó lubálúba. **Kinande (JD42)**

Kambale sent 9letter 9LK quickly

‘Kambale sent the letter quickly’ (Schneider-Zioga 2015a)

¹³ Baker and Collins (2006: 342, footnote 26) note the existence of such linkers but consider them a distinct structure because they don’t share all properties with other linker constructions.

Schneider-Zioga points out that this is unexpected if the function of a linker is to Case-license the object that follows it (as proposed by Baker and Collins). In addition, Schneider-Zioga (2015a) shows that passivization is not symmetrical out of a small clause construction, suggesting that the MLC is not in fact parameterized for Kinande:

(30) a. akaratási mókarwírwe [____ mo bihindibihíndi] **Kinande (JD42)**

12paper AFF.12cut.PASS MO 8piece.piece

‘The paper was cut into pieces.’

b. *ehihindihihindi mohitwirwe [akaratasi (mo) ____]

19small pieces AFF.19cut.PASS 12paper (MO)

‘Pieces were cut from the paper.’

Schneider-Zioga instead proposes an account based on Chomsky’s (2013) Labeling Algorithm, in which she explains linker phenomena as a strategy to *break* underlying symmetry between two post-verbal elements by moving one to the linker’s Specifier where it c-commands the other.¹⁴

2.8 Verbal modifiers

There is (to our knowledge) little evidence for a syntactic category of “adverb” in Bantu languages, but various morphosyntactic strategies are adopted to form adverbial modifiers from nominal, verbal, and adjectival roots. Wasike and Diercks (2016) show that Lubukusu puts

¹⁴ The account is highly technical, so we refer the reader to Chomsky (2013) and Schneider-Zioga (2015a) for full details. Also see Richards 2010 for another account of Kinande linkers.

morphological roots into morphological forms parallel to the noun class system, though missing the pre-prefix that appears on nominals: *ka-ma-indi* ‘maize’ is a class 6 noun, but the adverbial *ma-kalama* (meaning to do something ‘in the lying-on-your-back position’) lacks the pre-prefix *ka-*. Lubukusu also forms adverbials via prepositional phrases (*ne sifuba* ‘forcefully/with force’) and locative noun classes (even for non-location semantics, e.g. *mu-bwikisi* 18-secret ‘secretly’).¹⁵ Additionally, Carstens and Diercks (2013a) discuss the properties of an agreeing manner wh-word (‘how’) and its implications for theories of Agree.

While research on Bantu adverbials is relatively sparse, there is a fair amount specifically on the syntax and semantics of ideophones, words which tend to require particular syntactic structures and which are depictive of sensory imagery (see (31) and Dingemanse 2011, 2012, 2017; Bowler and Gluckman 2018; Dwyer and Moshi 2003; Samarin 1971). Ideophones often describe the degree of a particular property, and it is common for each ideophone to be restricted to a particular semantic class (e.g. hotness/spiciness, redness).

- (31) a. *matse ni ma-hiu pa.* **Tiriki (JE413)**
 6.water COP 6-hot IDEO
 ‘The water is very hot.’
- b. *intso ni y-amuchi kha.*
 9.house COP 9-red IDEO
 ‘The house is very red.’

¹⁵ Wasike and Diercks also demonstrate that word order of adverbials in Lubukusu adheres to the expected structural distinctions for adverbs of different semantics (Cinque 1999; Ernst 2014).

3 Agreement in Bantu

3.1 Hyper-agreement and hyper-activity

Many Bantu languages exhibit unusual liberality regarding the distribution of agreement: most functional categories can bear agreement morphology, as illustrated in overt agreement on complementizers with *wh*-phrases (see (32)). Similarly, (33) shows instances of subject agreement on multiple verbal elements, which is widespread in Bantu languages. Agreement morphology frequently shows up in places that are completely unexpected from the standpoint of IE languages – even, in some languages, on the question word ‘how’ (see (34)).

(32) E-ki-hi ky-o Kambale a-alangira? **Kinande (JD42)**

7-7-what 7AGR-that 1Kambale 1SM-saw

‘What did Kambale see?’ (Schneider-Zioga 2007)

(33) a. Juma a-li-kuwa a-me-pika chakula. **Swahili (G41)**

1-Juma 1SM-PST-be 1SM-PERF-cook 7-food

‘Juma had cooked food.’ (Carstens 2001)

b. She has been/*s running/*s. **English**

(34) Ki-mi-saala ki-a-kw-ile ki-rie(na)? **Lubukusu (JE31c)**

4-4-tree 4SM-PST-fall-PST 4-how

‘How did the trees fall?’ (Carstens and Diercks 2013a: 180)

Agreement in Bantu is more inclusive with respect to feature content than IE subject agreement: even subject agreement exhibits noun class distinctions in addition to person and number contrasts. The class of possible agreement controllers is also broader in Bantu than in IE languages. In addition to canonical subjects, various Bantu languages allow inverted locatives (35), instruments (36), and even direct objects (37) to control from preverbal position (what is canonically) subject agreement.

(35) **Ku-mu-dzi ku-na-bwér-á a-lendô-wo Chichewa (N31) locative inversion**

17-3-village 17SM-REC.PST-come-IND 2-visitor-2those

‘To the village came those visitors.’ (Bresnan and Kanerva 1989: 2)

(36) **I-sipunu si-dl-a u-John. Zulu (S42) instrument inversion**

7-spoon 7SM-eat-FV 1-John

‘John is using the spoon to eat.’ (Zeller 2012: 134)

[Lit. ‘The spoon is eating John.’]

(37) **A-ma-tá y-á-nyôye a-bâ-na. Kirundi (JD62) OVS**

6-6-milk 6SM-drink-PST 2-2-children

‘Children (not parents) drank milk.’ (Ndayiragije 1999: 400)

[Lit.: ‘Milk drank children.’]

Carstens (2011) dubs these phenomena *hyperagreement* (agreement is more abundant and fuller-featured than in IE languages) and *hyperactivity* (Bantu nominals are more available for inversion-type movements and agreement relations than DPs in IE languages).¹⁶

3.2 Theoretical approaches to agreement

Several important works on Bantu syntax in the '90s adopted the view that agreement is a reflex of a [Specifier, head] relation where the features of a phrase in a specifier position of XP are copied onto the head of XP (Chomsky 1991, 1995; Koopman 1992, 2006; among others). See Carstens and Kinyalolo (1989), Kinyalolo (1991), and Schneider-Zioga (1988, 1995) on Kinande, and Carstens (2001) on Swahili (cf. Henderson 2007). More recent work has adopted the proposal of Chomsky (1995, 2000, 2001) that agreeing heads bear unvalued, uninterpretable features of person, number, and gender -- the so-called phi-feature (hence uPhi) *probes*. In the relation called Agree, these probes obtain values from a *goal* DP which has valued, interpretable versions of the same features under closest c-command.

Agree does not entail any particular number or location of agreeing elements per clause, but ancillary factors are assumed to effect limitations on this. Chief among these is the relationship between agreement and Case. Chomsky (2000, 2001) proposes that agreement is constrained by a tight linkage to Case-valuation: simplifying somewhat, X can Agree with Y iff X gives Y a Case value. Baker (2003, 2008) argues that this linkage is parameterized: Bantu agreement is more abundant because it is independent of Case (see also Collins 2004 and Carstens 2005). Carstens (2010, 2011) builds on this idea, proposing that while Case-independence is crucial to understanding *hyperagreement* and *hyperactivity* in Bantu, a

¹⁶ An excellent illustration of hyperactivity is hyper-raising (§4.2).

parameter on the relationship between Case and agreement is not necessary because agreement that includes grammatical gender is generally independent of Case, both morphosyntactic features playing a similar role in facilitating Agree. On her account, gender is included in all clause-level agreement in Bantu because N adjoins to D in Bantu languages (see §2). In contrast, person and gender agreement have complementary agreement in IE because the person feature of D blocks access to the lower gender feature of N, for heads that are sensitive to person features.

3.3 Directionality of Agree

Recall that the subject marker in many Bantu languages agrees with whatever surfaces to its left, as shown in (35)-(37).¹⁷ Consideration of such phenomena led Baker (2003, 2008), Collins (2004), and Carstens (2005) all to propose some version of the idea that heads in Bantu languages can only agree with a structurally higher phrase. Baker's (2008) proposal has been particularly influential, feeding a broad debate within Minimalist theory regarding the directionality of Agree. See especially Zeijlstra (2012), Wurmbrand (2012), and Bjorkman and Zeijlstra (2018) (among others) for arguments that Agree always probes upwards, and Preminger (2013), Diercks et al (to appear) for arguments against this.¹⁸

¹⁷ See Kinyalolo (1991); Ura (1994, 1996); Collins (2004); Baker (2003); Carstens (2005); Zeller (2012, 2013); Halpert (2016); Diercks (2011b), and Henderson (2011). Van der Wal (2009, 2015c) and Sheehan and van der Wal (2016) discuss properties of Makhuwa (P31) and Matengo (N13), which appear to systematically diverge from the broader Bantu agreement patterns here.

¹⁸ See also Bejar and Rezac (2009), Carstens (2016), Toosarvandani and van Urk (2014) for bidirectional approaches under which (glossing over some differences in implementation) a match for uPhi is automatically sought in the c-command domain of its bearer at Merge, but if one is lacking, valuation can “look upward.”

Directionality remains an area of ongoing controversy. Carstens and Diercks (2013a) show that although Lubukusu agreement in general reflects the features of a c-commanding expression, agreement on ‘how’ can be valued by the post-verbal thematic subject in a locative inversion construction. Carstens and Diercks conclude from this that the apparent upward directionality of agreement is illusory, at least where Lubukusu is concerned, due to raising of most agreement controllers.

- (38) **Mu**-mu-siiru **mw**-a-kwa-**mo** ku-mu-saala ku-rie /***mu**-rie? **Lubukusu (JE31c)**
 18-3-forest 18SM-PST-fall-18LOC 3-3-tree 3-how/*18-how
 ‘How did a tree fall in the forest?’ (Lit: In the forest fell a tree how?)

On the other hand, Lubukusu exhibits a variety of complementizer agreement that tracks the superordinate subject -- a phenomenon strikingly at odds with downward-probing Agree (see also Kawasha 2007b; Baker 2008; Duncan and Torrence 2018; Safir and Letsholo to appear). Diercks (2013) shows that the Lubukusu complementizer agreement ignores lower clause subjects, superordinate clause indirect objects, causees in causative constructions, and demoted subjects in by-phrases.

- (39) **Ewe** w-abol-el-a Nelsoni **o-li**/*a-li ba-keni ba-a-rekukh-a.
 you(SG) 2SM-say-APPL-FV 1Nelson 2SG-that/*1-that 2-guests 2SM-PST-left-FV
 ‘You told Nelson that the guests left.’ (Lubukusu, Diercks 2010: 293)

Diercks analyzes this as an Indirect Agree relation, where complementizer agreement is triggered locally by a null anaphor in Spec, CP coreferent with the matrix subject.¹⁹ Despite the apparent amenability of these facts to Upward Agree, the lack of intervention effects is a lingering puzzle. There are several downwards-probing reanalyses of upwards complementizer agreement, involving raising of agreeing C (Diercks et al to appear, which maintains the anaphoric analysis) or raising of the whole CP that contains the agreeing C (Carstens 2016; Safir and Letsholo to appear).

4 Case and DP Licensing in Bantu Languages

An important ongoing debate in the analysis of Bantu syntax has to do with DP-licensing, that is, the factors that determine the distribution of overt nominal expressions. Abstract Case is accorded a crucial role in this in generative syntactic theory.²⁰

4.1 Empirical baseline

Harford (1985) first pointed out that nominal expressions in many Bantu languages do not show the distribution that is expected, based on the languages for which Case Theory was first developed. For example, Harford shows that movement to subject position in passives is optional in Shona (Harford 1985: 49) - in so-called *impersonal passives* the object remains post-verbal, and is not agreed with. She points out that on the GB-theoretic assumption that objects of passives should not be (Case-)licensed in their canonical post-verbal position, this is unexpected.

¹⁹ See Baker's (2008) discussion of Kinande (JD42) complementizer agreement for a precursor to these ideas.

²⁰ Here we follow the convention of distinguishing the upper-case abstract "Case" (which by hypothesis licenses nominals), from the lower-case morphological "case" (i.e. the actual morphology that appears on nominals marking grammatical function).

Diercks 2016; among others). Carstens and Diercks (2013b) demonstrate that Lubukusu and Lusaamia allow a full range of tense/aspect distinctions in the embedded clause (see and (42)) -- not just subjunctive, as is found in Greek and Japanese hyper-raising constructions (Alexiadou and Anagnostopoulous 1999, Uchibori 2001):

(42) a. E-fula e-lol-ekh-an-a e-kw-ile **Lubukusu (JE31c)**

9-rain 9SM-see-STAT-REC-FV 9SM-rain-PST

‘It seems to have rained.’ (lit: ‘Rain seems that fell.’)

b. E-fula yi-bon-ekh-an-a i-na-kwa muchiri **Lusaamia (JE34)**

9-rain 9SM-seem 9SM-FUT-fall tomorrow

‘It seems that it will rain tomorrow’ (lit: rain seems will fall tomorrow)

Halpert (2012, 2016) shows in examples like (43) that Zulu hyper-raising preserves idiomatic readings for whole-clause idioms that are (by assumption) merged as a unit in the lower clause.²¹ This fact, reproduced in various Bantu languages including Shona (Carstens and Diercks (2013c), Logoori (Mountjoy-Venning and Diercks 2016, and Tiriki (Diercks and Hernández 2018) is argued to be evidence that hyper-raising constructions are true raising (i.e. generated via movement) and not copy-raising *seems as if* type constructions that are base-generated with a null subject in the lower clause.

²¹ The same has also been documented for.

(43) Iqhina li-bonakala [ukuthi li-phum-ile embizeni] **Zulu (S42)**

5steinbok 5SM-seems that 5SM-exit-PST LOC.9pot

‘The steenbok seems to have exited the pot.’ (literal)

‘The secret seems to have come out.’ (idiomatic) (Halpert 2016)

Some Bantu languages also have a non-agreeing raising construction where the embedded subject raises to matrix subject position, but the matrix verb does not inflect for its features (see Halpert 2018, Mountjoy-Venning and Diercks 2016, Diercks and Hernández 2018).

(44) **u-Zinhle_i** **ku-**bonakala [ukuthi t_i u-zo-xova u-jeqe] **Zulu (S42)**

AUG-1Zinhle_i 17SM-seem that t_i 1SM-FUT-make AUG-1steamed.bread

‘It seems that Zinhle will make steamed bread.’

Halpert (2016) demonstrates that such non-agreeing raising constructions in Zulu move the subject to canonical subject position, despite the unexpected lack of subject agreement on the verb.²² Mountjoy-Venning and Diercks (2016) confirm these findings for Logoori non-agreeing raising, and Diercks and Hernandez (2018) find the same for Tiriki.

²² Her analysis proposes that the “non-agreeing” subject marker in these constructions arises from agreement with the entire embedded clause: see also Pietraszko (to appear) regarding nominal properties of CPs in Ndebele.

4.3 A Case Parameter (Diercks 2012)

Diercks (2012) replicates Harford's (1985) Case anomalies in a range of additional Bantu languages, and also points out that overt subjects appear in non-finite clauses where Case theory predicts them to be ruled out (Diercks 2012: 7-9).

(45) Ka-nyal-ikh-an-a Sammy khu-khila ku-mw-inyawwe o-kwo. **Lubukusu**
6SM-possible-STAT-REC-FV 1Sammy INF-win 3-3-game DEM-3
'It is possible for Sammy to win the game.'

(46) Sammy khu-khila ku-mw-inyawwe o-kwo khu-la-sanga-sy-a mawe.
1Sammy INF-win 3-3-game DEM-3 15S-FUT-please-CAUS-FV mother.his²³
'For Sammy to win the game will please his mother.'

As often noted in the literature, the inversion constructions discussed in §3 raise Case puzzles: on the common assumption that agreement with tense licenses overt subjects (via nominative Case), if the subject marker on the verb agrees with a fronted phrase that is not the thematic subject, it is unclear what could Case-license the non-agreed-with post-verbal thematic subject.

Moreover, as Diercks notes, morphological c/Case distinctions are lacking in Bantu languages. Following Harford's conclusions and similar suggestions by Baker (2003, 2008), Diercks concludes that abstract Case plays no role in Bantu languages.

²³ The class 15 subject marker agrees with the infinitive marker here (infinitive morphology has traditionally been considered to fall within the Bantu noun class system, as it serves a nominalizing function, part of which is the ability to trigger noun class agreements).

(47) Case Parameter: Uninterpretable Case features are/are not present in a language

This has been debated on both empirical and theoretical grounds (e.g. Halpert 2016, Sheehan and van der Wal 2018, among others). Van der Wal (2015c) argues that Makhuwa and Matengo in fact *do* have Case on the basis of not sharing the Case-Theoretic anomalies discussed above (indirectly supporting the claim of the existence of Caseless Bantu languages). For example, in locative inversion the verb agrees with the post-verbal thematic subject, as in English.

(48) Wakisírwá a-náá-phiyá alétto. **Makhuwa (P31)**
1_{island} 2_{SM-PRES.DJ}-arrive 2_{guests}
'On the island arrive guests.' (van der Wal, 2009: 194, 195)

As we will see below, others have claimed that even languages with Case-theoretic anomalies nonetheless retain abstract Case.

4.4 Further Case-theoretic developments

4.4.1 Augments (some background)

In many Bantu languages nominals have two consecutive prefixes that mark noun class: the first of these is referred to as the initial vowel, the pre-prefix, or the augment. The augment is often

argued/assumed to be correlated with definiteness or specificity (Mould 1974, Bokamba 1971, Baker 2003).²⁴

(49) a. **Mo-ibi** anyɔlɔki ondaku

Dzamba (C323)

‘A thief entered the house.’

b. **O-mo-ibi** anyɔlɔki ondaku

‘The thief entered the house.’ (Bokamba 1971: 220)

As observed by a large range of researchers, there are complex constraints on the interpretation and syntactic distribution of (un)augmented nouns (Hyman and Katamba 1993, Progovac 1993, Taraldsen 2010, Halpert 2016, Carstens and Mletshe 2016). A prominent recurring pattern is that augmentless nouns in many Bantu languages function as NPIs, being restricted to negative, interrogative, and conditional environments:

(50) a. Yohani anzire ***(o)-mukali**

Kinande (JD42)

John like AUG-woman

‘John likes the woman.’

²⁴ See Gambarage (2013) for a precise semantic discussion of Nata augments that shows the Nata augment is neither, and instead is a “weak indefinite” with a complex set of interpretive conditions.

b. Yohani si anzire **mukali**

John not like woman

‘John does not like any woman.’ (Progovac 1993: 258; glosses are hers)

We refer the reader to Halpert (this volume) for a full overview of augments (which are known to vary in their properties crosslinguistically): this brief introduction suffices to introduce the syntactic argumentation around these issues.

4.4.2 Augments and Case in Halpert 2016

Halpert (2012, 2016) argues that Zulu (S42)—a language with the full set of the relevant Case anomalies—does in fact have abstract Case, and therefore that Diercks (2012) may be on the wrong track. The anomalies nonetheless arise because Case-theoretic restrictions only emerge in connection with augmentless nominals. (51) and (52) illustrate the complex pattern of distribution that Halpert uncovered for Zulu augmentless nominals:

(51) *Augmentless nominals in preverbal subject position

a. *A-ngi-sho-ngo [ukuthi **muntu u-fik-ile**] **Zulu (S42)**

NEG-1SM-say-NEG.PAST that 1person 1SM-arrive-PST

‘I didn’t say that anyone came.’

b. A-ngi-sho-ngo [ukuthi ku-fik-e **muntu**]

NEG-1SM-say-NEG.PAST that 17SM-arrive-PST 1person

‘I didn’t say that anyone came.’

(52) a. *VSO augmented-augmentless

*A-ku-phek-anga (u-)muntu qanda

NEG-17SM-cook-NEG.PAST AUG-1person 5egg

[Intended: Nobody cooked any egg]

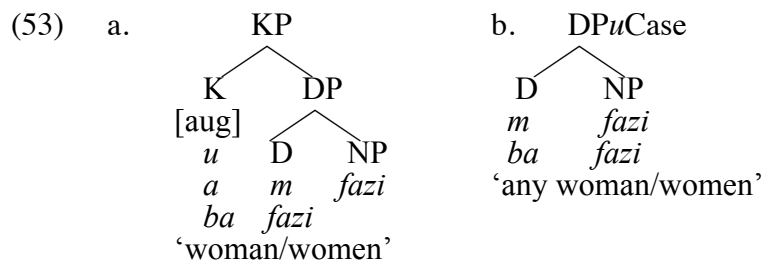
b. OK: VSOO augmentless-augmented-augmentless

A-ku-thum-el-anga muntu *(i-)zingane m-ali

NEG-17SM-send-NEG.PAST 1-1person *(AUG-)10child 9-money

‘Nobody sent the/any children any money’

Parting with a tradition analyzing augments as determiner heads, Halpert argues that the augment is a Case-licensing morpheme (K in (53)).



In the absence of K, Case-licensing requirements restrict augmentless nominals (henceforth [-A]) to positions local to one of three downwards Case-licensors: L (a Licensing head between TP and vP), Applicative heads, and Causative heads. Thus [-A] nominals cannot appear in preverbal subject position, and only one [-A] nominal is possible vP-internally unless the verb bears applicative or causative morphology.

4.4.3 A focus account of [-A] distribution

Carstens and Mletshe (2016, henceforth C&M16) show that the distribution of [-A] nominals in Xhosa largely replicates the patterns in Zulu, but propose a different account. Recall that [-A] nominals function as NPIs and *wh*-phrases. C&M16 point out that these classes of expressions have [+focus] features crosslinguistically. They note further that four positions from which Zulu and Xhosa [-A] nominals are barred are also illicit positions for augmented ([+A]) nominals with focus features: [+A] *wh*-phrases, and [+A] expressions modified by *kuphela* - 'only'. Table 1 (adapted from C&M16: 792) summarizes the points of similarity.

Table 1: 4 taboo locations for [-A] NPIs, *wh*-phrases, and DPs modified by *kuphela* - 'only'

<i>Expression type</i>	<i>Preverbal subject</i>	<i>Clitic-dislocated</i>	<i>VSO₁O2</i>	<i>VSO</i>
[-A] NPI	✗	✗	✗	✗
[+A] 'only' DP	✗	✗	✗	✗
[+/-A] <i>wh</i> -word	✗	✗	✗	??

C&M16 conclude that the restrictions on Zulu [-A] nominals attributed in Halpert (2012, 2016) to Case needs are instead largely products of the intricate clausal topography of Nguni focus (§5, and see also Hyman 1993 on focus-licensing of [-A] nominals in Luganda).

4.4.4 Semantically-linked Cases?

Halpert's (2016) proposals re-introduce the possibility that Case-Licensing might be present but obscured in Bantu languages that exhibit a full array of Case-theoretic anomalies. Carstens and Mletshe (2015, henceforth C&M15) adopt a version of this general view, arguing that there exist

semantically-linked inherent and structural Cases in Xhosa (S41). Their claims are based on properties of Xhosa Transitive Expletive Constructions (TECs). These are VSO constructions in which subject agreement is lacking, subject and object are [+focus] and [-focus] respectively, and experiencer verbs are disallowed:

(54) Ku-phek-a u-Sindiswa a-ma-qanda **Xhosa (S41)**
 17SM-cook-FV 1-1Sindiswa 6-6-eggs
 ‘It’s **Sindiswa** who cooks eggs.’

(55) *Kw-a-bon-a u-m-fazi i-n-taka.
 17SM-PST2-see-FV 1-1-woman 9-9bird
 [Intended: (It was) **a/the woman** (who) saw the bird]

C&M15 note that experiencer predicates are also banned from Estonian TECs, and that this receives a Case-related account in Lavine (2010). C&M approach the Xhosa experiencer verb restriction in terms of inherent Case. They point out that arguments of experiencer verbs bear non-canonical Cases in many languages (see Haspelmath 2001, Montaut 2013 among others) and that such Cases may not licitly be replaced with other semantically linked, non-canonical Cases so that the Russian genitive of negation, for example, is impossible on arguments of experiencer verbs (see Pesetsky 1982). C&M15 propose that a middle-field Focus head gives non-canonical Case-values to the [+/-Focus] arguments in a Xhosa TEC, under local structural relations. This is impossible for arguments of experiencer verbs under (56) because they already bear semantically-linked Cases.

(56) **The semantic Case constraint:** *DP bearing more than one semantically-linked Case.

This analysis entails that Case exists in Bantu languages, as argued by Halpert (2016).

5 Information structure and Bantu morphosyntax

Many Bantu languages encode information structure in syntactic positions and morphology. This observation was a central component of early analyses of Bantu word order and agreement patterns within the framework of Lexical Functional Grammar (e.g. Bresnan and Kanerva 1989; Bresnan 1994), and is a growing influence on Minimalist analyses such as C&M16's focus-based reanalysis of Zulu [-A] nominal distribution and van der Wal's (2017a) proposal that Bantu DPs may be entirely licensed by discourse features such as topic and focus. In this section we survey some phenomena that have not already been covered, though prominent among the relevant patterns are also the various inversion constructions discussed in §3.1 and §3.3 above.²⁵

²⁵ See Marten and van der Wal (2014) for an overview. For locative inversions, see Bresnan and Kanerva (1989); Bresnan (1994); Buell (2007); Demuth and Mmusi (1997); Diercks (2011b); Harford (1990); Marten (2006); Marten and van der Wal (2014); Salzmann (2011); Zeller (2013). OVS constructions have been documented in Lingala (C30B) and Likila (C31a) (Givon 1979), Dzamba (C322) and Swahili (G41) (Bokamba 1979), Kinyarwanda (JD61) (Kimenyi 1980, 1988), Kilega (D25) (Kinyalolo 1991), and Kirundi (JD62) (Ndayiragije 1999). It has been our experience that inversion constructions like these are somewhat variably accepted by language consultants, even within a language that purportedly has them. This may be due to intra-language variation, or perhaps due to the precise discourse-conditions that license it being hard to construct in elicitation contexts. Our impression is that the generality of these inversions is yet to be determined.

5.1 Conjoint/disjoint and focus

A large number of central and southern Bantu languages have what is known as the conjoint/disjoint contrast in verbal paradigms (van der Wal and Hyman 2016, van der Wal this volume). In some languages, conjoint forms are always non-final in the verb phrase, whereas disjoint forms are VP-final (for example, Zulu: van der Spuy 1993, Buell 2006): in these languages, the conjoint/disjoint distinction is argued to track constituency (of the verb phrase), not focus. For example Buell (2006: 18) shows that a resumptive locative pronoun (which cannot be focused) uses the conjoint form in Zulu:

- (57) Indawo lapho [ngi-cul-e khona.] **Zulu (S42)**
9.place rel 1sg.sm-sing-perf.cj there
'The place where I sang.' (Buell 2006: 18)

Carstens & Mletshe (2015) and Halpert (2016) argue that conjoint morphology in Xhosa and Zulu respectively must c-command an expression with intrinsic phi-features. Halpert (2016) proposes that a middle-field functional head L probes vP; failed probing yields the disjoint form.

In other languages, the choice of forms directly correlates with patterns of foci. As van der Wal (2011: 1740) shows, an unfocused, nonspecific object occurs with the disjoint form in Makhuwa (see a,b), whereas placing contrastive focus on the same phrase requires the conjoint (0c).

- (58) a. DJ Ko-ín-wéha ntthu. **Makhuwa (P31)**
 1SG.SM.PFV.DJ-1OM-look 1.person
 ‘I saw someone.’
- b. CJ *Ki-m-weh-alé ntthú.
 1SG.SM-1OM-look-PFV.CJ 1.person
 int: ‘I saw someone.’
- c. CJ Ki-m-weh-alé ntthú, nki-weh-ále enáma.
 1SG.SM-1OM-look-PFV.CJ 1.person NEG.1SG-look-PFV 9.animal
 ‘I saw a person/human being, not an animal.’

5.2 Preverbal focus marker

In a variety of northeastern Bantu languages, verbs regularly bear a morpheme that interacts with focused material in interesting ways (see Abels and Muriungi 2008 for Tharaka (E54), Schwarz 2007 for Kikuyu (E51), Ranero 2015 and Landman and Ranero 2018 for Kuria (JE43)). In the Kuria 1.1a, the focus marker appears prefixed to the verb and the interpretation is VP-focus. In 1.1b, the focused subject must instead bear the focus marker.

- (59) a. Ichi-ng’iti *(n-)cha-a-it-ir-e ege-toocho. **Kuria (JE43)**
 10-hyena FOC-10SA-PST-kill-PRF-FV 7-rabbit
 ‘The hyenas killed the rabbit.’

b. *(N-)ichi-ng'iti (*n-)cha-a-it-ir-e ege-toocho.

*(FOC-)10-hyena (*FOC-)10SA-PST-kill-PRF-FV 7-rabbit

‘THE HYENAS killed the rabbit.’ (Landman and Ranero 2018: 394-5)

Though the work differs in some details, Schwarz (2007), Abels and Muriungi (2008), and Landman and Ranero (2018) all propose that the focus morpheme sits in a left-peripheral focus projection, and that the variable position of the focus marker is due to syntactic movements (or not) to that focus position.

5.3 [-focus] positions

It has often been noted that topical interpretations are associated with preverbal subject position in Bantu languages. The Zulu (S42) examples in (60) from Zeller (2008) demonstrate that material with focus features is barred from preverbal subject position -- a restriction well-established in work on a variety of Bantu languages (and see Demuth 1990, Zerbian 2006a, van der Wal 2009, Sabel and Zeller 2006, Buell 2006, Cheng and Downing 2012, Kinyalolo 1991, Baker 2003, Schneider-Zioga 2007, Pietraszko 2017 on these restrictions). In languages where this pattern occurs, Zeller describes preverbal subject position as anti-focus.

(60) a. *[U-John **kuphela**] u-fik-ile. **Zulu (S42)**

1-1John only 1SM-arrive-DISJ1

[Intended: Only John arrived.]

b. *U-bani u-phek-ile?
 AUG-1a.who 1SM-cook-PST.DISJ1

[Intended: 'Who cooked?']

c. Ku-fik-e bani?
 EXPL17.SM-arrive-PST who.1a

‘Who arrived?’

C&M16 argue that in Zulu and Xhosa TEC constructions, O of [VSO (O)] is also anti-focus, ruling out wh-words, NPIs, and phrases with exclusive focus (*kuphele* ‘only’).²⁶

(61) a. *Ku-thum-el-é u-Sindiswa (u-)bani i-zi-ncwadi? Zulu (S42)
 17SM-send-APPL-CJ1 1-1Sindiswa (1-)1who 10-10-books
 [Intended: Who did Sindiswa send books to?]

b. *Ku-theng-é u-Sindiswa [a-ma-qanda kuphela].
 17SM-buy-CJ1 1-1Sindiswa 6-6-eggs only
 [Intended: Sindiswa bought only eggs.] (C&M16: 790)

Zeller (2008) points out that (clitic)-dislocated material cannot have focus features either, as has been established also in Greek and Spanish (Anagnostopoulou 1994, Kalluli 2000, Schneider-Zioga 1994). This is demonstrated for Zulu in (62) (from C&M16: 791).

²⁶ They show that O1 of [V-S-O1-O2] is strongly anti-focus; the sole O of [V-S-O] is more weakly so (see Table 1).

- (62) * U-**m**-bon-ile]_{VP} (u-)**bani**? **Zulu (S42)**
 2SG.SM-1OM-see-DJ (1-)who
 ‘Who did you see?’

5.4 Immediately after verb focus

In marked contrast, there is a striking [+focus] domain following the verb in Bantu languages as distant as Aghem (Cameroon) and Zulu (South Africa), often referred to as an Immediately-After-the-Verb effect (IAV). Proposed by Watters (1979) for the Grassfields language Aghem, in the IAV pattern focused phrases (and wh-phrases) must occur immediately after the verb whether or not that is their canonical non-focused position (see also Hyman 2010).²⁷

- (63) tí-bvú tì-bìghà mô zì kí-bé † né **Aghem**
 dogs two P₁ eat fufu today
 ‘The two dogs ate fufu today.’ (unmarked structure) (Hyman 2010:96)

- (64) tí-bvú tì-bìghà mô zì † né bé kó
 dogs two P₁ eat today fufu D
 ‘The two dogs ate fufu TODAY.’ (Hyman 2010: 97)

Cheng and Downing's (2012) study of IAV in Zulu shows a similar pattern (parentheses indicate phonological phrasing; obligatory object marking indicates that material following the focus is

²⁷ As Hyman (2010) describes (and as evident in (58) and (59)), noun phrases are marked differently depending on whether they are in focus or not. See Hyman 1979, 2010 for details.

right-dislocated). (66) demonstrates that focused or questioned non-subjects are immediately post-verbal; all else is vP-external.

(65) *Neutral word order S-V-O-XP*

(Si-thwéle a-má-tha:nga ngó-bhasikí:di). **Zulu (S42)**

1PL.SM-carry 6-6-pumpkin with-1a-basket

‘We are carrying the pumpkins in a basket.’ (Cheng and Downing 2012: 248)

(66) Q: (u-wa-thwéle ngá:n’) a-má-tha:nga)?

2SG.SM-6OM-carry how 6-6-pumpkin

‘How are you carrying the pumpkins?’

A: (Si-wa-thwéle ngó-bhasikí:d’) a-má-tha:nga).

1PL.SM-6OM-carry with-1a-basket 6-6-pumpkin

‘We are carrying the pumpkins in a basket.’

5.5 Approaching the distribution of focus and topic positions

5.5.1 Deriving the properties of the preverbal subject position

There have been a number of proposals that the preverbal subject in various Bantu languages occupies an A' position in the clausal left periphery. Kinyalolo (1991) noted that preverbal subjects in Kilega (D25) are incompatible with object and adjunct wh-movement (see (67)a). The subject must surface in a low, post-verbal position if a wh-phrase is clause-initial, as in (67)b:

(67) a. *Bi-kí bábo bí-kulu bi-b-á-kás-íl-é m-wámí mu-mwílo?

8-what 2that 2-woman 8CA-2SM-ASP-give-PERF-FV 1-chief 18-3village

‘What did those women give the chief in the village?’

b. Bi-kí bi-á-kás-íl-é bábo bí-kulu m-wámí mu-mwílo

8-what 8CA-A-give-PERF-FV 2that 2-woman 1-chief 18-3village

‘What did those women give the chief in the village?’

Kinyalolo (1991) proposes an IP-adjoined position for preverbal subjects on the basis of such contrasts, blocking A'-movement of a wh-operator across it. Much subsequent work has approximated the same insight: Baker (2003) proposes that Kinande (JD42) preverbal subjects are systematically left-dislocated, Schneider-Zioga (2007) situates the Kinande subject in Spec, TopP to explain anti-agreement effects (§6), Pietraszko (2017) argues for a similar analysis of subjects of indicatives in Ndebele (S44), and Henderson (2006) proposes that preverbal subjects occupy Spec,CP in languages where they are incompatible with object extraction such as Kilega, Kirundi (JD62) and Dzamba (C323).

Though Kinande preverbal subjects are licit in constructions analogous to (67)a, Schneider-Zioga makes a crucial observation supporting a similar treatment: when a wh-operator appears in the left periphery, the preverbal subject ceases to pattern as topicalized. One piece of evidence is that while augmentless noun phrases (interpreted as NPIs) are normally prohibited

from preverbal subject position, they are acceptable just in case the left edge is occupied by another expression such as the wh-object in (68).²⁸

- (68) ekihi kyo mu-kali sy-a-ngahuka **Kinande (JD42)**
7what 7that_{focus} 1-woman NEG-1SM-cook
'What didn't any woman cook?' (Schneider-Zioga 2007: 408)
(or: 'what did no woman cook?')

An A' approach to clause-initial preverbal subjects has the potential to explain this and the Kilega pattern, and to address the distinctive Bantu inversion constructions targeting this position such as (35)-(38). There are nonetheless some challenges for such an account. Kinyalolo (1991) provides morphological evidence differentiating operators from both canonical preverbal subjects and preverbal inverted material, namely, that agreement with a wh-operator precedes the clausal negation morpheme while agreement with preverbal subjects follows it. Thus the morpheme order is [wh.AGR-NEG-SA-V], SA agreeing with a canonical subject, inverted object or inverted locative. Assuming the Mirror Principle of Baker 1985, this suggests a structural distinction between the landing sites of wh-operators and other preverbal material in Kilega (D25), despite the complementary distribution in (67).

²⁸ Also relevant is Schneider-Zioga's observation that anti-agreement effects (§6) are absent for a wh-subject just in case a wh-object has raised to the left edge, a fact she connects to the lack of dislocation for subjects when the left edge is filled by another phrase.

Ndayiragije provides an argument from Weak Crossover Effects (WCO) that the inverted object in Kirundi (JD62) is in an A-position, as is the canonical subject of an SVO sentence: it is unacceptable for a pronoun within either kind of preverbal DP to bind a quantifier to its right.

(69) a. U-mu-nyeshule w-eese_i a-ø-ra-kund-a u-mw-arimu wiwe_i. **Kirundi (JD62)**

1-1-student 1every 1SM-PRES-like-FV 1-teacher 1of-him

‘Every student_i likes his_i teacher.’

b.*U-mw-arimu wiwe_i a-ø-ra-kunda u-mu-nyeshule w-eese_i.

1-teacher 1of-him 1SM-PRES-like 1-student 1-every

‘Every student_i likes his_i teacher./His_i teacher likes every student_i.’²⁹

(Ndayiragije 1999: 400)

Evidence of this kind has given rise to analyses in which inversion is A-movement, that is, more like passive-raising than like wh-movement.

5.5.2 Theoretical approaches to deriving inversion to subject position

In addition to the above issues relating to the preverbal subject position, a persistent puzzle across many Bantu languages is how to derive movement of a structurally lower DP into this location across a structurally higher DP, in a subversion of expected locality relationships. We


²⁹Carstens (2011) cites Ndayiragije p.c. for judgments that the bound reading is impossible under the SVO interpretation of the sentence as well as to OVS, and that, in contrast to both these cases, a pronoun within a fronted Kirundi operator can be bound by an argument, just like in the English *His chemistry book, every student should read*, contra Henderson (2006).

have discussed a variety of these kinds of inversions above, including locative inversion, instrument inversion, and the object-subject reversal that occurs in OVS constructions.

In the theoretical syntactic literature, apparent movement of one non-operator DP across another has often been explained by some version of equidistance, that is, by considering two DPs within some minimal domain to be of equivalent closeness to the target of movement in a technical (if not an absolute) sense. There are a variety of alternatives in the literature as well, however, including base generation (Zeller 2013), and selective probing (Carstens and Diercks 2013a). We refer the interested reader to Chomsky (1995), Collins (1997), den Dikken (2006), Ura (1996), Ndayragije (1999), Carstens (2005), Henderson (2006, 2011), Zeller (2013), and Diercks (2017) for discussion of specific proposals regarding the mechanics of Bantu inversion.

Miyagawa (2010) offers an account that is of particular interest given the proposals about preverbal subjects discussed above. Miyagawa argues that Kinande (JD42) locative inversion is raising to α P, a structural position between TP and CP motivated as the target of A-scrambling in Japanese and Finnish (among other languages). For Miyagawa, α P inherits discourse features like Topic and Focus from C via the Feature Inheritance process of Chomsky (2007, 2008), and these features drive scrambling operations in languages/constructions which have α P.

$$(70) \left[{}_{CP} C \left[{}_{\alpha P} \text{PREVERBAL TOPIC } \alpha \left[{}_{TP} T \left[{}_{VP} v \dots \right] \right] \right] \right] \quad (\text{Miyagawa 2010})$$



 α inherits Topic features from C

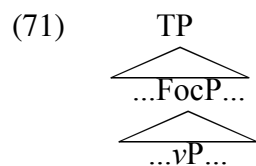
When Kinande C attracts an operator to Spec, CP, this inheritance does not take place; hence the NPI subject in (68) is licit because it occupies Spec, TP rather than Spec, α P. Miyagawa (2010:104) argues that in contrast, Kilega disallows preverbal subjects in wh-movement

constructions such as (67) because C- α inheritance *does* take place; as a result, the two heads C and α must both Agree with the wh-operator.

On this approach, Kinande and Kilega inversion constructions (and presumably similar ones in other Bantu languages) are in fact only instances of (relatively-familiar) information-structure-based scrambling, with the wrinkle that apparent properties of ‘subjects’ such as subject agreement are in reality properties of sentence topics.

5.5.3 Deriving post-verbal focus

To capture the focus reading of post-verbal subjects in Kirundi (JD62) OVS constructions, Ndayiragije (1999) proposes a middle field FocusP, between TP and vP.³⁰



Sabel and Zeller (2006), van der Wal (2006), and Carstens and Mletshe (2015, 2016) all advocate a similar architecture with a low focus position to account for focus phenomena in various southern Bantu languages.

In an important departure from this pattern, Cheng and Downing (2012) argue that post-verbal focus in the Zulu (S42) IAV domain is not due to a dedicated focus position. Instead, the focused material is vP internal. Obligatory object marking indicates that everything else has

³⁰ Since Kirundi word order in locative inversion constructions (for example) is Loc-V-O-S, Ndayiragije proposes that Spec, FocP is on the right.

moved out of vP, leaving a single occupant, which is associated with a focus reading (focus boldfaced; (72)b adapted from Cheng and Downing: (21)).

(72) a. u-Sipho u-yi-phek-el-a **baani** in-ku:khu? **Zulu (S42)**

1-Sipho 1SM-9OM-cook-APPL-FV who 9-chicken

‘Who is Siphso cooking the chicken for?’ (Cheng and Downing 2011)

b. [_{IP} Sipho u- [_{XP} cook+X [_{VP} ~~Sipho~~ V+v [_{VP} who V ~~chicken~~]]]] chicken]

Under the alternative approach that assumes focused material occupies a dedicated FocusP, clitic-dislocation of all non-focused material is somewhat mysterious, as they point out.

6 A'-properties in Bantu languages

We have already touched on some common distributional properties of A' constructions (i.e. questions, clefts, and relative clauses) that are much discussed in the Bantu syntax literature, such as the frequent ban on preverbal subject questions, the phenomenon of immediately after verb (IAV) question word placement, patterns of object marking in relative clauses, and, depending on the analysis, perhaps inversion constructions targeting preverbal position. Given the close connection between information structure and other central grammatical properties described above, it is not surprising that many of the preceding topics intersect with the question of A'-movement.

A'-constructions in Bantu languages exhibit a great deal of variation, both cross-linguistically and internally to a given language. There are in situ, ex situ, and partial movement wh-constructions in many Bantu languages (Sabel and Zeller 2006):

- (73) a. [CP U-cabanga [CP ukuthi uBev u-thenge **ini**]]? **Zulu (S42)**
 2SG.SM-think that 1aBev 1a.SM-bought 9what
 'What do you think Bev bought?'
- b. Y-ini o-cabanga [CP ukuthi uBev u-yi-thengile ___]]?³¹
 COP-9what RC2s-think that 1aBev 1a.SM-9OM-bought
 'What do you think Bev bought?'
- c. [CP U-cabanga [CP ukuthi yi-ni a-yi-thengile-yo uBev ___]]?
 2SM-think that COP-9what 1a.SM-9OM-bought-RS
 'What do you think Bev bought?'

For detailed descriptions and analyses of clefts and questions in various Bantu languages see (among others) Zentz (2016), Bokamba (1976); Wasike (2007); Zerbian (2006b); Muriungi (2005, 2011); Muriungi et al (2014); Letsholo (2006, 2007); Downing (2011); Sabel and Zeller (2006).

One other aspect of A' constructions with a direct link to previous content in our chapter is the phenomenon known since Ouhalla's (1993) work on Berber as *anti-agreement*, though the term has been shown to be a misnomer for Bantu. As the examples in (74) and (75) show, subject

³¹ Sabel and Zeller (2006) use the gloss RC for 'relative concord' and RS for 'relativizing suffix.'

(2010); Demuth and Harford (1999); Henderson (2006); Zeller (2004); Simango (2006); Kawasha (2002, 2008); Cheng (2006); Letsholo (2009); Zentz (2015); Gould and Scott (to appear).

7 Conclusions

In this chapter we have presented an overview of major theoretical questions and empirical domains that have been addressed by research on Bantu languages. In the process of this discussion we have overviewed a large variety of relevant syntactic constructions, though for a detailed look at the range of particular constructions of interest in Bantu languages, the individual chapters in this volume will be a much better resource. There are broad, persistent similarities between Bantu languages that have raised and continue to raise theoretical challenges for generative syntacticians, as we have noted throughout. But the tendency of theoreticians (including ourselves at times) to posit that “Bantu does X” is also risky: the Bantu language family is very large and diverse, and contains a wide range of morphosyntactic variation. Most Bantu languages are still undocumented or underdocumented, and for syntactic research specifically the situation is even worse—with respect to the kind of careful, detailed syntactic judgments that theoretical work requires there is much work to be done even in the (few) languages that are relatively well-researched. What has preceded shows that a lot of important work has already been done, but it is also clear that the Bantu language family is brimming with potential for intriguing empirical research and important theoretical contributions for the foreseeable future.

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