OGBL: Syntax

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Abstract

This chapter offers an overview of the syntax of Bantu languages, highlighting their significant empirical characteristics and the corresponding analytical and theoretical issues. Topics covered include nominal and verbal morphology, (non-)canonical word orders, typologically unusual properties of agreement, the distribution of noun phrases, the syntax of information structure (topic/focus), and brief comments on the properties of wh-questions and relative clauses.

1   Introduction

Though the Bantu language family is large and diverse both geographically and linguistically, its members exhibit certain clusters of distinctive syntactic properties. This chapter focuses on such properties, the theoretical questions they have raised, and the approaches that researchers have advocated.[1] We discuss characteristics of the nominal and verbal domains including noun classes and both inflectional and grammatical-function-changing morphology on the verb (§2), some unusual properties of agreement (§3), Case-theoretic anomalies in the distribution of noun phrases (§4), a clausal topography of information structure positions (§5), word order variation (discussed throughout, but also see §5.5.2), and, briefly, A'-constructions (§6). We ground our work within the generative syntactic framework of the Minimalist Program and its predecessors, though some work discussed here was written in other frameworks.

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

2   Categories and phrases

2.1   Nouns and noun class

Bantu nouns are partitioned into noun classes, expressed in agreement and in nominal class prefixes (Meinhoff 1906). Noun stems in Swahili which bear the Class 1 singular prefix replace it with the Class 2 prefix in the plural; singular nouns bearing the Class 3 singular prefix pluralize by means of the Class 4 prefix; and so on for 5+ pairs of classes (see (1)). [2]

(1) a. m-toto/wa-toto   b. m-ti/mi-ti   c. ji-cho/ma-cho   **Swahili (G41)**[3]

       1-child/2-child   3-tree/4-tree   5-eye/6-eye

       'child/ren'   'tree/s'   'eye/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)   β (Class 3)   (β and α = N or NP)

             m-   α

         Class 1

                   tu

                child

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[2] We follow this volume's glossing conventions wherever possible. If uncertain on how to interpret glossing of an example from another source, we retain the original glosses.

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

Carstens (1991, 2008) points out that 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   4-shoe

            'person'   'shoes'

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

(4)   singular ←→ m- /__gender 1/2

      plural   ←→ wa- /__gender 1/2

      etc.

(5)   NumP
                  ╱   ╲
              Num   NP
           [Sing/Pl]   ╱╲
                    N [α gender]
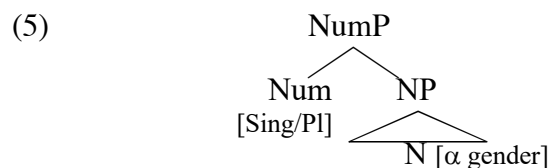
Approaching these questions from the standpoint of Distributed Morphology, Kramer (2015), Ferrari (2005), Kihm (2005), and Fuchs and van der Wal (2018) analyze noun class/gender as a property of the categorizer *n* which combines with acategorial roots to yield nominal expressions (see (6)). Acquaviva (2009) and Kramer (2015) propose that *licensing conditions* generally limit root+*n* combinations, explaining facts like (3).

(6)　　　　　　　*n*P

$$\overset{\displaystyle nP}{\underset{\underset{\text{[gender α]}}{n}\qquad \sqrt{\ }}{\diagup\diagdown}}$$
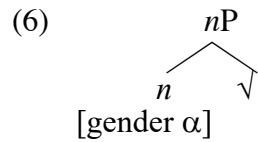
In contrast, Déchaine et al (2014) argue that different noun class prefixes associate to distinct syntactic positions in the nominal spine, including K(ase), D(eterminer), and nominal aspect. Taraldsen et al (2018) argue that noun class prefixes in Southern Bantu languages are phrasal specifiers. [4]

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'

(8) a.　ki-atu　ki-moja　b.　vi-atu vi-wili

　　　　7-shoe　7-one　　　　8-shoe 8-two

　　　　'one shoe'　　　　　'two shoes'

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[4] §4.3 discusses the augment/pre-prefix found on nouns in some Bantu languages.

Demonstratives also agree with the head noun. Their default location is post-nominal, but some Bantu languages permit prenominal demonstratives. In Swahili these indicate discourse-familiarity:

(9) a. m-tu   huyu   b. wa-tu   ha-wa   c. huyu   m-tu

         1-person 1.this   2-person 2-this   1.this   1-person

         'this person'   'these people'   'this person' (that we were

                                                                          speaking of)

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

(10)   Vuri   muundu   a-syeev-i   **Logoori (JE41)**

        Every 1person   1SM-dance-PST

        'Every person danced.' (Landman 2016: 220)

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 can 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 <u>zvi-tatu</u> **zvi-kuru** *izvo*.   [N Num Adj Dem]

    e.   *izvo*   zvi-punu <u>zvi-tatu</u> **zvi-kuru**.   [Dem N Num Adj]

    f.   zvi-punu *izvo*   <u>zvi-tatu</u> **zvi-kuru**.   [N Dem Num Adj]

Carstens (1991) proposes that the general pre-modifier position of Bantu nouns results from N-raising 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) $[_{QP} Q [_{DP} N+Num+D [_{XP} Dem...<Num>... [_{NP} Adj <N>]]]]$

    In lieu of the noun-raising approach Branan and Davis (2018) argue that in Chichewa, NP raises to Spec of DP, analyzing Mchombo's (2006) *discontinuous noun phrases* as NP moving from Spec, DP to a fronted position:

(13)   Mbûzi   atsíkáná á   mfúmu   a-a-gul-á   [__ z-ákúda]. **Chichewa (N31)**

       10goats   2girls   2-ASSOC   9chief   2SM-PRF-buy-FV   10SM-black

       'Goats, the chief's girls have bought black (ones).' (Mchombo 2006: (4))

Both Carstens and Branan and Davis (2018) assume that there is a DP projection in the Bantu languages of their studies, but this is not uncontroversial. Exact equivalents to (in)definite

articles are lacking as in a range of other languages including Serbo-Croatian, Hindi, Turkish, and Korean. The syntax of such 'bare' nominals is a topic of considerable debate; see Chierchia (1998), Bošković (2008) for proposals that absent articles, there is no DP.

2.4   Locative constructions

Many Bantu languages include three locative noun classes (numbered 16-18). Locative morphology, in Chichewa *mu, pa,* or *ku,* precedes the prefixes of nouns' intrinsic classes. Clause-level agreement is in the locative class (see (14)). Myers (1987), Bresnan and Mchombo (1995) show that concord on nominal modifiers may reflect intrinsic or locative class. Carstens (1997) demonstrates that the choice has semantic correlates: concord in the noun's intrinsic class signals modification of that noun, whereas locative concord signals modification of a location connected with the noun's referent (see (15)a,b).

(14)   a.   Mu-nyumba   mu-ku-nunkha.   (Carstens 1997:362)

          18-9house   18-ASP-stink-FV

          'Inside the house stinks.'

      b.   Ku-nyumba   'ku   ndi   ku-tali

          17-9-house   17DEM   COP   17-far

          'That house and its environs are far away.'

(15)   a.   pa-li   nchenche   pa   ch-iseko   chi-ri-ch-onse   (Carstens 1997:384)

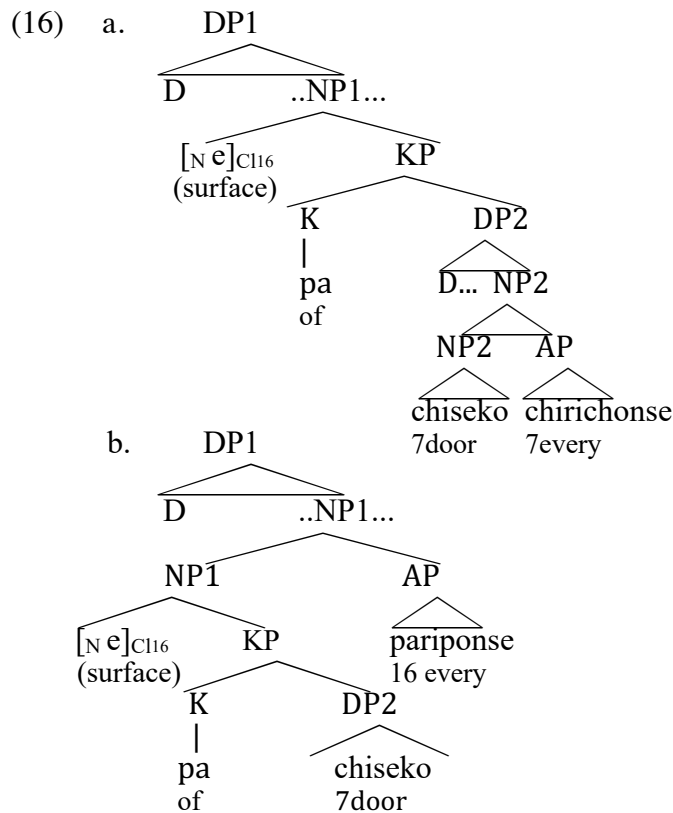   16SA-be 10fly   16LOC   7-door   7-be-7-all

          'There are flies on every door.'

      b.   pa-li   nchenche   pa   chi-seko   pa-ri-p-onse

          16SA-be 10fly   16LOC   7door   16-be-16-all

'There are flies all over the door' (i.e. on every surface of it)

With Bresnan and Mchombo (1995) and Myers (1990), Carstens assumes that locative phrases in languages like Chichewa are nominal. Carstens proposes that null nouns meaning 'inside', 'surface', and 'place' select *pa, ku,* and *mu* as gender-specific case-markers. Adjectives may modify either the lexical noun or the silent 'place' noun as shown in (16).[5]

(16) a.

```
        DP1
       /    \
      D     ..NP1...
   [N e]Cl16    \
   (surface)     KP
              /      \
             K        DP2
             |       /    \
             pa    D...   NP2
             of         /    \
                      NP2     AP
                     chiseko chirichonse
                     7door   7every
```

b.

```
        DP1
       /    \
      D     ..NP1...
          /         \
        NP1          AP
       /    \       pariponse
  [N e]Cl16  KP     16 every
  (surface) /   \
           K     DP2
           |    /    \
           pa  chiseko
           of  7door
```

Chichewa instantiates just one of many Bantu locative patterns; in some languages, locatives seem truly prepositional, and in others they exhibit mixed properties. See Zeller (this volume) for a comprehensive overview.

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[5] We abstract away from N-to-D movement proposed in Carstens's analysis.

2.5 Verbs and verbal inflection

Verbs in Bantu languages are morphologically complex, as (17) illustrates. A template for canonical morpheme order appears in (18).[6]

(17) Nti- ba- zaa- na- ki- ku- íi- éerek -ir- a -ho **Kinyarwanda ([J]D61)**

NEG- 2SM- FUT-also- 7.OM- 2SG.OM-REFL- show -APPL -ASP -LOC

'They won't even show it to you for themselves on it.' (Kimenyi 1980: 7)

(18) (Neg)-SM-(Neg)-Tense/Aspect-(OM)-Root-Extensions-Final Vowel-Postfinal

The order is similar in Grassfields Bantu languages despite clear morphological differences: in Makaa, verbal inflection displays analyticity such that an adverb may appear between negation and the aspect morpheme (see (19)).

(19) Mə̀ kú nyìŋgə̆ ŋgə̀ wáámbìlə̀ i-ʃàmbə́ **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 Bantu verbal morphology as syntactically assembled, even in strongly agglutinating languages (see Baker's 1985 'Mirror Principle'). Keach (1986) argues from secondary stress assignment and the post-tense/aspect position of Swahili (G41)

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[6] Whether multiple object markers are possible as in (17) varies parametrically. There are also exceptions to the template; some languages have verb-final object markers, for example (Beaudoin-Lietz et al 2004).

relativization morphology that a structural boundary follows the tense/aspect marker, which she locates in a clause-medial INFL node.[7] Myers (1990) shows that outer verbal suffixes in Shona (S10) take scope over inner ones, i.e. right scopes over left; in contrast, prefixes scope left to right. Julien (2002) proposes that verb roots in Shona raise to the middle field of the clause, collecting verbal suffixes along the way by means of leftwards head-adjunction, but inflectional prefixes are added to the verb post-syntactically.[8] Under Julien's analysis, a derivation respecting Kayne's (1994) Linear Correspondence Axiom underlies Bantu affix order and scope phenomena.

2.6 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 (17) and the Chichewa (N31) example in (20).

(20) Njûchi   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 or must "double" fronted expressions, and the impact of OMs on meanings

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[7] Ngonyani (1999) argues the same, noting a tendency of speakers to make the orthographic mistake of separating Swahili [subject marker+tense] from the verbal material that follows.

[8] 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*).

(Bresnan and Mchombo 1987; Henderson 2006; Riedel 2009; Bax and Diercks 2012; Marlo 2014, 2015; Zeller 2014; Ranero 2019, Sikuku et al 2018; helpful overviews are available in van der Wal 2017b, Marlo 2014, 2015; Marten and Kula 2012). In the spirit of Perlmutter's (1968) work on Romance clitic combinations, Bantu research in the 1970s and 1980s explored complex hierarchies of person, animacy, and thematic role that come into play when there are multiple OMs (Hyman and Morolong 1977, Duranti 1979, Hyman and Duranti 1982). These studies documented co-occurrence restrictions along the lines of *him$_{GOAL}$me/you$_{THEME}$ (since Bonet 1994 known as the *Person-Case* Constraint) and more. For example, (21) demonstrates a requirement that when two third-person plural OMs co-occur, a human-referring one (here, the class 2 *ba*) must appear closest to the verb to be construed as goal. Two interpretations are possible for this order of OMs, but with the order reversed, *ba* can only be theme. Patterns of this kind present continuing puzzles for generative analyses.

(21) 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)*' (Duranti 1979:41)

OMs in Bantu languages are generally analyzed as either incorporated pronouns or agreement morphemes depending on the licitness of OM-doubling an *in situ* object; see Henderson (2006),

among others. Sambaa as analyzed by Riedel (2009) exhibits agreement or clitic-doubling types of OMs: (22) shows that both objects of a double object construction may be doubled:[9]

(22) N-za-*chi*-**m**-nka   **ng'wana** *ki-tabu*   **Sambaa (G23)**

1SG.SM-PRF.DJ-7OM-1OM-give   1child   7-book

'I gave the child a book.' (Riedel 2009: 106)

In contrast, Lubukusu allows just one OM on the verb, which can double an *in situ* object only under specific pragmatic conditions.

(23) *n-á-(*ka)-**mu**-a*   ***wéékésá***   *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 2018)

Like Lubukusu, Zulu disallows doubling an *in situ* object (see (24)).

(24) 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.'

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[9] Riedel (2009) demonstrates that the direct object in Sambaa may be doubled only if the applied (indirect) object is OMed as well.

The lack of *in situ* doubling in Zulu and in Lubukusu neutral contexts makes their OMs resemble 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, pronominal clitic OMs ought not to be possible in object relative clauses, as the gap in the relative clause and the object marker would compete for the same thematic position. Yet Zeller (2014: 359) demonstrates that despite ruling out *in situ* doubling, Zulu requires OMs in relative clauses.

(25) I-n-cwadi   [i-si-tshudeni e-si-*(*yi*)-funda-yo]   **Zulu (S42)**

     AUG-9-letter AUG-7-student REL-7 SM -9OM -read-RS

       'the letter that the student is reading'

This microvariation in the OM domain motivates Zeller's (2014) proposal that there are three kinds of OMs in Bantu languages: agreement morphemes (which may double *in situ* objects), pronominal clitics, and agreement reflexes of A'-movement, which arise when an object is relativized or dislocated.[10]

    There is also a growing body of work on information-structure effects of OM-doubling in Bantu like that shown in Lubukusu (23), such as Bax and Diercks (2012), Zeller (2012, 2014, 2015), Ranero (2019), and Sikuku et al (2018). Some interpretive correlates converge with those for clitic doubling in some Indo-European languages (Anagnostopolou 1994; Ordonez 1997; Kalluli 2000, 2008, 2016; Schneider-Zioga 1994), though the precise degree of similarity is an ongoing research topic.

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[10] See van der Wal (2015a) for something of a hybrid pronoun/agreement approach based on Roberts' (2010) theory of clitics.

In many languages, a reflexive affix can only occupy the same morphological position that OMs do, whereas reciprocals are expressed in a post-verbal suffix, as shown in the Swahili (26)a,b.

(26) a. Juma na Halima   wa-li-ji-on-a   **Swahili (G41)**

Juma and Halima 2SM- PST- RFM-see-FV

'Juma and Halima saw themselves.'

b. Juma na Halima wa-li-on-an-a

Juma and Halima 2SM-PST-see-RFM-FV

'Juma and Halima saw each other.'

There are also free-standing anaphors in some Bantu languages (see Biloa 2012 on Tuki). Safir's (2018) Afranaph project explores reflexive and reciprocal predicates in detail, providing data and descriptions of the systems of anaphoric relations in a wide variety of African languages, including the Bantu languages Bemba (M42), Bulu (A74), Cinsenga (N21), Fe'efe'e (Delmon), Ikalanga (S16), Kinande (JD42), Kirundi (JD62), Limbum, Lubukusu (JE31c), and Tuki (A601).

2.7   The syntax of grammatical function changing morphology

Verbal suffixes that alter argument structure are a well-known feature of Bantu (Schadeberg 2003; Good 2007). Among the most prominently discussed are the CARP affixes—causative, applicative, reciprocal, and passive (Hyman 2003). [11] Other such suffixes include reversive,

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[11] Space prohibits a full discussion, but the interested reader can find literature on each. For causatives, see Baker et al (2012) on Lubukusu, Muriungi (2014) on Kîîtharaka, Givón (1976), and Pylkkänen (2008) on Luganda and Bemba. Safir's (2018) Afranaph project has the largest collection of work on reciprocals, and documents a range of

stative/neuter, pluractional, intensive (see Schadeberg 2003, the language overview chapters in this volume, and Nurse and Philippson 2003).

(27) <u>Verbal derivational morphology in Babole (C101, Republic of Congo, Brazzaville)</u>

-am-	'passive'	bá≠bímb-**ám**-í (nà Serge)	'They were hit (by Serge).'
-el-	'applicative'	à≠bímb-**éd**-í àmɛ́ 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 ɛ́í	'Let's remove him from dominating (us).'
-an-	'reciprocal'	Bisɛ́ na Serge to≠bímb-**án**-í	'Serge and us guys hit each other.'

(Leitch 2003: 415)

Among these, applicatives have perhaps received the greatest attention and had the largest impact beyond Bantu, shaping theoretical analyses of double object constructions. An applicative morpheme suffixes to the verb stem in most Bantu languages and adds an argument that can have many different roles, including beneficiary, maleficiary, purpose, instrument, location, goal, and source (see Jeong 2007 for a thorough summary):[12]

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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).

[12] Jerro (2016) demonstrates some variability in applicative semantics and argument addition based on semantic properties of the verb itself.

(28) N-ä-ï-zrìc-**í**-à   m-bùyà   **Chaga (E60) benefactive**

FOC-1SM-PRON-run-APPL-FV   9-friend

'S/he is running for a friend.'

(29) 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)

(30) Mavuto a-na-umb-**ir**-a   mpeni   mtsuko   **Chichewa (N31) instrumental**

Mavuto 1SM-PST-mold-APPL-ASP knife   waterpot

'Mavuto molded the waterpot with a knife.' (Baker 1988: 230)

(31) 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 2019), in that applicative constructions
within and across languages can differ with respect to whether both or only one object may
display canonical object properties like verbal adjacency and availability for object marking,
passivization, and reciprocalization (see Riedel this volume for an overview).

Pylkkänen (2008) builds on an observation from Marantz (1993) that applicatives differ with respect to subtle aspects of their semantics. English double object constructions like *Alex baked Maya a cake* convey an expectation that the beneficiary is the recipient of the theme (i.e. Maya actually received the cake): these are Pylkkänen's *low applicatives*. In other benefactive and instrumental applicative constructions, or *high applicatives*, no such requirement holds. The quintessential diagnostic is that high applicatives are possible with unergative verbs as in the Chaga example in (28), 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 are VP-internal, directly relating the indirect and direct objects.

Pylkkänen assumes a connection between high applicatives and symmetry, and McGinnis (2001a,b) builds on this, proposing that high (but not low) Appls are phase heads with edge features which can raise the direct object across the indirect object. However Jeong (2007) observes that there is no across-the-board correlation – 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). Jeong proposes that while their event-relatedness entails that high applicatives merge with the verb or a projection of it, there is variability in the precise syntactic realization. This allows Jeong to posit multiple kinds of syntactic structures for applicatives including PPs merged as the complement to the verb, or as the specifier to the verb. Henderson (2018) extends Jeong's logic to propose a high applicative structure formed by merging an applicative head directly with the V head, rather than heading an ApplP projection and licensing an additional VP-internal argument (which can instead only be added as a peripheral or discourse topic). Henderson

proposes that this is why Chimwiini (G412) instrumental applicatives show atypical object properties with respect to word order, object marking, passivization, and A'-movement.

2.8 Linkers

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

(32) 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 *v*P-internal Linker Phrase (LkP) attracts either DP to its specifier. The one that raises becomes local to *v* for Case-licensing, and the remaining DP is Case-licensed by the linker. They suggest that movement to Spec, LkP is not constrained by hierarchical relations because Chomsky's (1995) Minimal Link Condition (MLC) is parameterized, and inactive in Kinande. 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 (see (33)), and this is unexpected if the function of a linker is to Case-license the object that follows it as in Baker and Collins's account.[13]

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

　　　　Kambale　sent　　9letter　　9LK　quickly

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

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 absent in Kinande:

(34) a. akaratási　mókarwírwé　　[_____　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 in which linker phenomena facilitate the Labeling Algorithm of Chomsky (2013), which would otherwise by thwarted by an [XP,YP]

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[13] Baker and Collins (2006: 342, footnote 26) suggest that these involve a distinct structure since they don't share all properties with other linker constructions.

configuration. Labeling succeeds because one XP raises to Specifier of the linker head with which it shares agreement features.[14]

2.9 Verbal modifiers

There is (to our knowledge) little evidence for a lexical category of "adverb" in Bantu languages, but various morphosyntactic strategies form adverbial modifiers from nominal, verbal, and adjectival roots. Wasike and Diercks (2016) show that Lubukusu adds what appear to be noun class prefixes to form adverbs, though not the pre-prefix that appears on nominals: *ka-ma-indi* 'maize' is a class 6 noun; the adverbial *ma-kalama* 'in the lying-on-your-back position' has the class 6 inner prefix but lacks the pre-prefix *ka-*. Lubukusu also expresses adverbial content through prepositional phrases (*ne sifuba* 'forcefully/with force') and locative noun classes (e.g. *mu-bwikisi* 18-secret 'in secret/secretly').[15] Additionally, Carstens and Diercks (2013a) discuss 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 on the syntax and semantics of ideophones. Ideophones tend to have rigid syntactic distribution, to express intensity (see (35) and Dingemanse 2011, 2012, 2017; Bowler and Gluckman 2018; Dwyer and Moshi 2003; Samarin 1971), and to be restricted to a particular semantic class (e.g. hotness/spiciness, redness) or even a specific predicate.

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[14] See Chomsky (2013) and Schneider-Zioga (2015a) for details, and Richards 2010 for another approach.

[15] Wasike and Diercks demonstrate that word order of material expressing adverbial content in Lubukusu is consistent with the structural hierarchy for adverbs established by Cinque (1999); Ernst (2014).

(35) 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.'

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 it, such as complementizers agreeing with wh-phrases (see (36)). Similarly, (37) shows instances of subject agreement on multiple verbal elements. Agreement frequently shows up in places that are quite unexpected from the standpoint of IE languages – even, in some languages, on the question word 'how' (see (38)).

(36)   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)

(37)   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 ha**s** been/***s** running/*s.   **English**

(38)   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)

Subject agreement in Bantu languages is more inclusive with respect to feature content

than its IE counterpart, exhibiting noun class distinctions as well as person and number contrasts.

The array of possible agreement controllers is also larger in Bantu languages than in IE

languages -- various Bantu languages allow inverted locatives (39), instruments (40), and even

direct objects (41) to control canonical subject agreement from preverbal position.

(39)   **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)

(40)   **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.']

(41)   **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 more abundant and fuller-featured than in IE languages) and *hyperactivity* (inversions and agreement relations uncharacteristic of 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 of XP are copied onto the head X (Chomsky 1991, Koopman 1992, 2006, among others). For this approach to Bantu agreement see Carstens and Kinyalolo (1989), Kinyalolo (1991), Schneider-Zioga (1988, 1995), and Carstens (2001). 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 a 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 Bantu *hyperagreement* and *hyperactivity*, a parameter on the Case-agreement

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[16] An excellent illustration of hyperactivity is hyper-raising (§4.1).

relation is unnecessary: agreement that includes grammatical gender (i.e. concord, Romance past participle agreement) is generally independent of Case, as Case and gender play 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); *hyperagreement* and *hyperactivity* result. In contrast, person and gender agreement have complementary patterns 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 (39)-(41). 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.[17] Baker's (2008) proposal that this varies parametrically has been particularly influential, fueling 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]

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[17] See also Kinyalolo (1991), Ura (1994, 1996), 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:

(42) **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?)

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.

On the other hand, Lubukusu exhibits a variety of complementizer agreement (CA) 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 2019). Diercks (2013) shows that Lubukusu CA ignores embedded clause subjects, superordinate clause indirect objects, causees in causative constructions, and demoted subjects in by-phrases.

(43) **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)

Despite the apparent amenability of these facts to Upward Agree, the lack of intervention effects is a lingering puzzle. Diercks analyzes CA as an Indirect Agree relation between uPhi on C and a

null anaphor in Spec CP, coreferent with the matrix subject.[19] There are several downwards-probing reanalyses of upwards CA, involving raising to vP of agreeing C (Diercks et al to appear, which maintains the anaphoric analysis), or of the whole CP that contains it (Carstens 2016; Safir and Letsholo 2019).

4   Case and DP Licensing in Bantu Languages

An important ongoing debate in Bantu syntactic work concerns DP-licensing, that is, the factors that determine the distribution of overt nominal expressions. Abstract Case is accorded a crucial and universal role in this, within standard 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 (see (44) from 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 cannot be (Case-)licensed in in situ, this is unexpected.

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[19] See Baker's (2008) discussion of Kinande (JD42) CA for a precursor to these ideas.

[20] Here we follow an orthographic convention of distinguishing abstract "Case" (which by hypothesis licenses nominals), from morphological "case" that appears on nominals. In an effort to clarity terminology, this phenomenon has at times (recently) been referred to as 'Vergnaud Licensing' (Pesetsky 2014, Sheehan and van der Wal 2018), recalling its original proposer (Chomsky 1981, Vergnaud 1977/2008).

(44) Kw-á-uray-iw-a   mu-rúmé   né-shumba   ku-ru-kova   **Shona (S10)**

     17SM-PST-kill-PASS-FV 1-man   by-9lion   17-11-river

     'There was a man killed by a lion at the river.'

Harford (1985: 2-5) also notes the existence of subject raising from tensed clauses (compare (45)a,b), where nominative is typically assumed to be assigned (in current terms, valued). Such so-called "hyper-raising" constructions are Case-theoretic anomalies.

(45) a. [$_{IP}$ pro_{EXPL} Zví-no-fungir-wa   [$_{CP}$ kuti [$_{IP}$ mbavhá y-aka-vánd-á   mú-bako]]].

         8EXPL   8SM-PRES-suspect-PASS that   9thief   9SM-FAR.PAST-hide-FV   18-cave

     'It is suspected that the thief is hidden in the cave.'

    b. [$_{IP}$ Mbavhá$_i$ i-no-fungir-wa   [$_{CP}$ kuti [$_{IP}$ t_i y-aka-vánd-á   mú-bako]]].

         9thief   9SM-PRES-suspect-PASS   that   9SM-FAR.PAST-hide-FV   18-cave

     'The thief is suspected to be hidden in the cave.'

     [Lit. 'The thief is suspected that hid in the cave.']

Bantu languages allow a full range of tense/aspect distinctions in the embedded clause of hyper-raising constructions (see the past tense (45)b and (46)) -- not just subjunctive, as is found in Greek and Japanese (Alexiadou and Anagnostopoulous 1999, Uchibori 2001).

(46) a. 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 (47) 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 is argued to be evidence that hyper-raising is true movement and not copy-raising *seems as if* type constructions that are base-generated with a null subject in the lower clause.

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

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

     'The steinbok seems to have exited the pot.' (literal)

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

4.2   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 ((48) and (48) from Diercks 2012: 7-9).

(48) Ka-nyal-ikh-an-a   Sammy khu-khila ku-mw-inyawe 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.'

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[21] See Halpert (2012, 2016) on a Zulu hyper- raising construction wherein the matrix verb shows default agreement. The full range of facts are replicated for Luyia varieties in Mountjoy-Venning and Diercks (2016), Diercks and Hernández (2018).

(49) Sammy   khu-khila ku-mw-inyawe o-kwo   khu-la-sanga-sy-a   mawe.

    1Sammy INF-win   3-3-game   DEM-3   15S-FUT-please-CAUS-FV mother.his[22]

    '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 tense Case-licenses overt subjects via subject agreement, 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.

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

This has been debated on both empirical and theoretical grounds (see 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 their not displaying the Case-theoretic anomalies discussed above (thereby supporting the view that languages with the anomalies are Caseless). For example, in locative inversion the verb agrees with the post-verbal thematic subject, as in English.

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[22] The class 15 subject marker agrees with the infinitival subject here (infinitive morphology falls within the Bantu noun class system, as it controls noun class agreement and can serve a nominalizing function).

(51)   Wakisírwá   a-náá-phíyá   alétto.   **Makhuwa (P31)**

16island   2SM-PRES.DJ-arrive   2guests

'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.

4.3   Further Case-theoretic developments

4.3.1   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 sometimes argued to correlate with definiteness or specificity (Mould 1974, Bokamba 1971, Baker 2003):[23]

(52) 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)

There are complex interpretive and distributional properties distinguishing augmentless from augmented nouns (Hyman and Katamba 1993, Progovac 1993, Taraldsen 2010, Halpert 2016,

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[23] See Gambarage (2013) for arguments that the Nata augment is a "weak indefinite" marker with subtle semantics.

Carstens and Mletshe 2016). A recurring pattern is for augmentless nouns to function as NPIs, restricted to negative environments (and in some languages, interrogatives and conditionals):

(53) a. Yohani anzire ***(o)-mukali**   **Kinande (JD42)**

      John   like   AUG-woman

      'John likes the woman.'

  b. Yohani   si anzire **mukali**

      John   not like   woman

      'John does not like any woman.'   (Progovac 1993: 258)

We refer the reader to Halpert (this volume) for a full overview of augments, including cross-linguistic variation in their properties.

4.3.2   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 arise because Case-theoretic restrictions only affect augmentless (henceforth [-A]) nominals. (54) and (55) illustrate some patterns of distribution that Halpert uncovered:

(54)   ***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.'

(55) a. *VSO where O is augmentless**
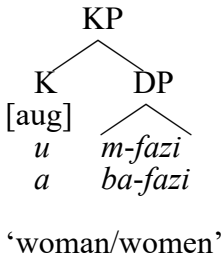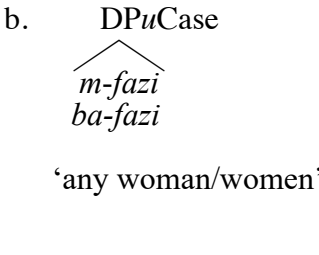
*A-ku-phek-anga (u-)muntu qanda

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'

Halpert also notes that [-A] nominals may not be (clitic) dislocated, or clefted.

Parting with a tradition analyzing augments as determiner heads, Halpert argues that the augment is a Case-licensing morpheme (K in (56)).

(56) a. KP b. DP*u*Case

      K   DP   *m-fazi*
    [aug]   *ba-fazi*
      u   *m-fazi*
      a   *ba-fazi*   'any woman/women'

      'woman/women'

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

4.3.3 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. In addition to their use as NPIs, Xhosa and Zulu [-A] nominals function as wh-phrases. C&M16 point out that NPIs and wh-phrases have [+focus] features, cross-linguistically. 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'*

Expression type	Preverbal subject	Clitic-dislocated	VSO₁O2	VSO
[-A] NPI	✗	✗	✗	✗
[+A] 'only' DP	✗	✗	✗	✗
[+/-A] *wh*-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). As for the impossibility of clefting [-A] nominals, C&M16 relate this to their status as NPs rather than DPs.

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 like (57) (see also the Zulu (55)a,b) in which subject agreement is lacking, subject and object are [+focus] and [-focus] respectively, and experiencer verbs with two augmented DP arguments are disallowed:

(57)   Ku-phek-a   u-Sindiswa   a-ma-qanda   **Xhosa (S41)**

            17SM-cook-FV 1-1Sindiswa   6-6-eggs

            'It's **Sindiswa** who cooks eggs.'

(58)   *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&M15 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 -- 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 [+/-Focus] arguments in a Xhosa TEC, if they are augmented (hence DPs with uCase features). This is impossible for arguments of experiencer verbs under (59) because they already bear semantically-linked Cases.

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

The 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 (and inversion constructions discussed in §3.1 and §3.3 will be returned to in §5.5.2).[24]

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[24] See Marten and van der Wal (2014) for an overview. For locative inversion, 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

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 2017, van der Wal this

volume). In some languages, disjoint forms are VP-final; conjoint forms appear on any verb that

precedes something within the verb phrase, whatever its discourse properties. For example, (60)

from Buell 2006:18) shows that the conjoint form precedes even a resumptive locative pronoun

in Zulu (and see also van der Spuy 1993):

(60)   Indawo lapho [ngi-cul-e   khona.]   **Zulu (S42)**

          9.place   rel   1sg.sm-sing-perf.cj 17.there

          'The place where I sang.' (Buell 2006: 18)

In such languages, the conjoint/disjoint distinction is argued to track constituency (of the verb

phrase), not focus. 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 into vP; failed

probing yields the disjoint form.

     In other languages, however, 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

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experience that inversion constructions like these vary in acceptability across speakers even within a language that

purportedly has them. This may be due to intra-language variation, or to difficulty in elicitation contexts in

constructing the precise discourse-conditions that license it, or perhaps to as yet undetermined factors .

form in Makhuwa (see (61)a,b), whereas placing contrastive focus on the same phrase requires the conjoint ((61)c).

(61) a.   DJ   Ko-ḿ-wéha   ńtthu.   **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-álé   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 (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 (62)a, the focus marker appears prefixed to the verb and the interpretation is VP-focus. In (62)b, the focused subject must instead bear the focus marker.

(62) 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 differing in details, Schwarz (2007), Abels and Muriungi (2008), and Landman and
Ranero (2018) all propose that the focus morpheme occupies a left-peripheral focus projection,
and that its variable surface position reflects syntactic movements of focused constituents.

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 (63) 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 (2008) describes preverbal subject position as anti-focus.

(63)   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, <u>O</u> of [VS<u>O</u>(O)] is also anti-focus, ruling out wh-words, NPIs, and phrases with exclusive focus (*kuphela* 'only'):[25]

(64) 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 (Anagnostopolou 1994, Kalluli 2000, Schneider-Zioga 1994). This is demonstrated for Zulu in (65) (from C&M16: 791).

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[25] C&M16 show that O1 of [V-S-O1-O2] is strongly anti-focus; the sole O of [V-S-O] more weakly so (see Table 1).

(65) *   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 position (see also Hyman 2010).[26]

(66) tí-bvú tì-bìghà mɔ̂ zì   kí-bɛ́   nɛ́   **Aghem**

      dogs   two   P₁ eat   fufu   today

      'The two dogs ate fufu today.' (unmarked structure) (Hyman 2010:96)

(67) tí-bvú tì-bìghà mɔ̂ zì   <u>nɛ́</u>   bɛ́   kɔ́

      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. (69) demonstrates that focused or questioned non-subjects are immediately post-verbal. Parentheses indicate

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[26] 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.

phonological phrasing; obligatory object marking indicates that material following the focus is right-dislocated.

(68) *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)

(69) Q: (u-**wa**-thwéle   *ngâ: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   Approaches to 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 (70)a). The subject must surface in a low, post-verbal position if a wh-phrase is clause-initial, as in (70)b:

(70) 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 reflects 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 (70)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 (71).[27]

(71) 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 (39)-(42). 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 (70), motivating Kinyalolo's IP-adjoined approach.

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[27] 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.

(72) 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$_i$.'[28]

    (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

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[28] Carstens (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 αP, a structural position between TP and CP motivated as the target of A-scrambling in Japanese and Finnish (among other languages). For Miyagawa, αP inherits discourse features like Topic and Focus from C via the Feature Inheritance process of Chomsky (2007, 2008; see (73)), and these features drive scrambling operations in languages/constructions which have αP.

(73) [$_{CP}$ C [$_{\alpha P}$ PREVERBAL TOPIC α [$_{TP}$ T [$_{vP}$ v…]]]]   (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 (71) is licit because it occupies Spec, TP rather than Spec, αP. Miyagawa (2010:104) argues that in contrast, Kilega disallows preverbal subjects in wh-movement

constructions such as (70)a 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 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 (see (74)).[29]

(74)
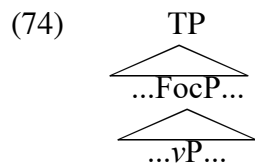
Sabel and Zeller (2006), van der Wal (2006), and Carstens and Mletshe (2015, 2016) all

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 Zulu (S42) does not diagnose a low FocusP. Instead, focused material is vP

internal. Obligatory object marking indicates that everything else has moved out of vP, leaving a

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[29] Since Kirundi word order in locative inversion constructions (for example) is Loc-V-O-S, Ndayiragije proposes

that Spec, FocP is on the right.

single occupant, which is associated with a focus reading (focus boldfaced; (75)a,b adapted from Cheng and Downing: (21)).

(75) 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 Sipho 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 FocusP approach, 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.

    One more common property of Bantu 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 (76) and (77) show, agreement with A'-subjects lacks person distinctions, displaying only noun class features, that is, number and gender (cf. Bokamba 1976, Kinyalolo 1991, Schneider-Zioga 2007,

Henderson 2013, Diercks 2010, Zentz 2015, Baier 2018 on this phenomenon in various Bantu languages).

(76) t-á-li   ki-kóngóló ang'ine [RC**ú/*n-**á-kít-ile   bubo]   **Kilega (D25)**

NEG-1SM-be 7-stupid   as.me   1WH.AGR/*1SG.SM-ASP-do-ASP 14that

's/he is not as stupid as me who have done that'

(77) t-á-li   ki-kóngóló anga biswé [RC **b/*tu-**á-kít-ile   bubo]

NEG-1SM-be 7-stupid   as   us   2CA/*1PL.SM-ASP-do-ASP 14that

's/he is not as stupid as we who have done that' (Kinyalolo 1991: 36)

Henderson (2013) and Diercks (2010) argue that syntactic strategies to avoid or repair extraction from Spec, TP give rise to this effect. Schneider-Zioga (2007) attributes it to an anti-locality constraint on extracting already-dislocated subjects (see Cheng 2006 on this point as well). Baier (2018) proposes that anti-agreement is a form of wh-agreement, and when a probe agrees with a subject that has A'-features (e.g. a wh-subject), agreement features that are copied to the probe are systematically impoverished (i.e. deleted; and see Kinyalolo 1991 for a similar approach).

Turning to word order issues, the surface positions of wh-operators exhibit a great deal of variation in Bantu, both cross-linguistically and internally to many languages. There are in situ, ex situ, and partial movement wh-constructions all licit in certain Bantu languages (Sabel and Zeller 2006: (12)):

(78) 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 ___]]?[30]

          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).

       Within the domain of A'-syntax, relative clauses have received particularly close attention. They display a variety of striking word order and agreement patterns, and have factored heavily into research on object markers, anti-agreement effects, and the position of preverbal subjects, among other topics. Cheng (this volume) offers an overview; the interested reader can also consult Barrett-Keach (1980); Bokamba (1976); Ngonyani (1999, 2001); Riedel (2010); Demuth and Harford (1999); Henderson (2006); Zeller (2004); Simango (2006); Kawasha (2002, 2008); Cheng (2006); Letsholo (2009); Zentz (2015); Gould and Scott (2019).

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

7   Conclusions

In this chapter we presented an overview of empirical phenomena and theoretical questions that have animated research on the syntax of Bantu languages (though for detailed explorations, the individual chapters in this volume provide a superior resource). There are broad similarities among Bantu languages that continue to intrigue 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 under-documented, 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.

8   Acknowledgements