Topic and focus in Bantu comparative syntax:
**3 steps towards Minimalist features**

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47th meeting of the Societas Linguistica Europaea, 11-14 September 2014, Poznan

1. Introduction

In order to account for linguistic variation in a Minimalist way, I assume the Borer-Chomsky Conjecture (Baker 2008: 3, cf. Borer 1984, Chomsky 1995), building on the Lexical Parameterization Hypothesis (Manzini and Wexler 1987) and the Functional Parameterization Hypothesis (Fukui 1995):

(1)   All parameters of variation are attributable to differences in the features of
        particular items (e.g. the functional heads) in the lexicon

I further assume that these features can be formal syntactic features which have an interpretable (iF) and an uninterpretable (uF) counterpart. When a head has a uF, it functions as a probe and searches its c-command domain for a matching iF to establish an Agree relation (Chomsky 2000, 2001). This is illustrated in (2) for object agreement in phi features.

(2)
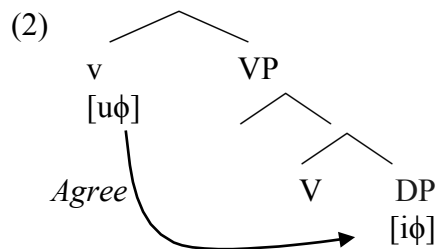
If information structural notions like topic and focus play a role in the syntax, the BCC tells us that there are features involved. Indeed, many such features have been proposed, such as [topic] and [focus], but also [contrast], [exhaustive] etc. Both privative (present/absent) and equipollent (+/-) features have been proposed, and the features have been said to be present on existing/underspecified heads (e.g. Miyagawa 2010) or have their own dedicated head (the Cartographic approach, Rizzi 1997, Belletti 2001, 2004, Frascarelli 2000 etc. etc.).

However, a central question is whether features like [focus] and/or [topic] are present in the derivation *at all*, i.e. whether they are grammaticalised as syntactic, formal features. In a Minimalist spirit, we should minimise the syntactic features we postulate. In particular, we need to have evidence that
  1. the superficially similar phenomena we examine are structurally the same (section 2);
  2. there is no alternative that makes use of fewer features (sections 3 and 4);
  3. if there is a feature, this is a syntactically active feature, not just semantic (section 5).

In order to test and illustrate the relevance of IS features, in this talk I consider two morphosyntactic phenomena found in Bantu languages. The Bantu languages, around 500 languages spoken in large parts of sub-Saharan Africa, are particularly suited for this purpose, since they form a relatively close language family that shows a lot of microvariation. The great majority of Bantu languages have SVO as their canonical

word order, and have agglutinative inflectional and derivational verbal morphology. A further characteristic is the noun class system, indicated with numerals in the glosses. These typical properties are illustrated for Swahili in (3).

(3) Juma   a-li-nunua   mkate.   Swahili
     1.Juma   1SM-PAST-buy   3.bread
     'Juma bought bread.'

The first phenomenon we investigate is subject inversion, where the logical subject occurs in a postverbal position. The second is the so-called conjoint/disjoint alternation, where the TAM morphology is dependent on the relation between the verb and the following element. These case studies are used to illustrate each of the three steps below.

2. WYSINATS (what you see is not all the same)

Matengo (4) and Makhuwa (5) display highly similar Agreeing Inversion: the subject appears in a linearly postverbal position, the subject marker on the verb agrees with the postverbal subject in noun class, and the subject is interpreted as non-topical.

Matengo
(4)   CJ   Ju-a-lwal-aje   mwaná gwa.
           1SUBJ-PAST-suffer-CJ 1.child   1.my
           'My child was sick.' (Yoneda 2011:759)

Makhuwa
(5)   DJ   Ni-hoó-wá   nláikha.
           5SUBJ-PERF.DJ-come 5.angel
           'There came an angel.' (Van der Wal 2009:189)

Using [topic] features, we could account for both in the following way. If the trigger to move to a higher, preverbal, position is associated with [+topic], and if these subjects are specified as [-topic] (as is evident from their distribution and interpretation), it follows that they will not be targeted by the movement trigger, thus remain in situ and be spelled out in a postverbal position.[1]
       However, upon closer inspection it turns out that the underlying structures are different, as argued for in Van der Wal (2012): in Matengo the postverbal subject is indeed vP-internal (8), resulting in VS(O) word order (6), a conjoint verb form (see section 3) and either a thetic or a subject-focus interpretation, as illustrated by the different contexts given for (7).
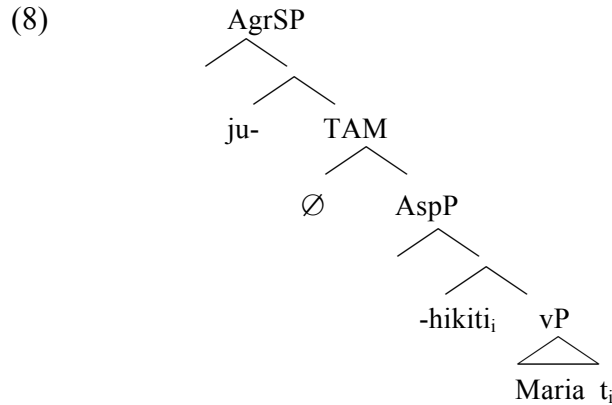
Matengo (Yoneda 2011:763)
(6)   CJ   Ju-a-teleka   María   wâ:le.   VSO
           1SM-PAST-cook/SF   1.Maria   9.rice
           'Maria cooked rice.'

      ?* juateleka wáli Marî:a   VOS

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[1] I indicate the features as equipollent, but they could equally well be privative.
[2] This section is based on cooperative work with Leston Buell, presented at ACAL 40 (April 2009,

(7) CJ Ju-híkití   Marî:a.
         1SM-arrive.PERF   1.Maria
         'Maria has come.'
         – as an answer to   a. 'what happened?'
                                b. 'who has come?'

(8)

```
              AgrSP
              /\
             /  \
           ju-   TAM
                 /\
                /  \
               ∅    AspP
                    /\
                   /  \
                  /    \
             -hikitiᵢ   vP
                       /\
                      /  \
                  Maria  tᵢ
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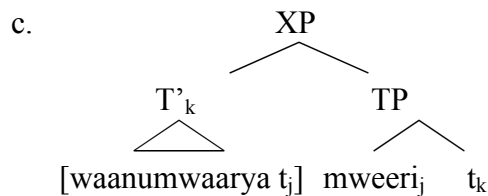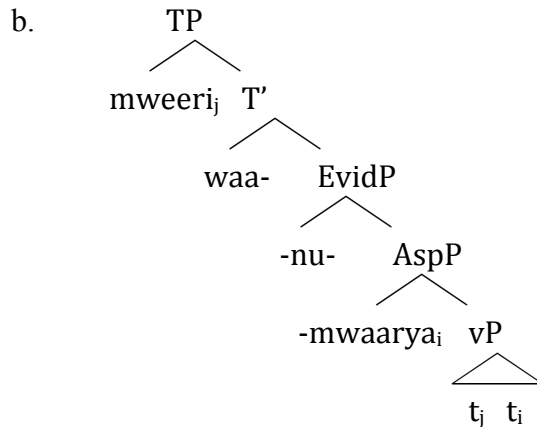
In Makhuwa, on the other hand, the subject is raised to specTP (and possibly higher to a separate projection like FinP), followed by remnant movement of the verb, as shown in the subsequent steps in (11b and c). This results in a grammatical V(O)S word order (9), the use of a disjoint verb form (see section 3), and *only* a thetic interpretation but not narrow focus, as shown by the impossibility of modifying the postverbal subject by the focus particle 'only' (10).

Makhuwa (Van der Wal 2009)
(9) Oo-várá   ephepélé naphúl' úule.   VOS
     1SM.PERF.DJ-grab 9.fly   1.frog   1.DEM.III
     'That frog caught a fly!'

(10) a. * Aa-váh-íya   ekanétá   anámwáne paáhi.
            2SM.PERF.DJ-give-PASS 10.pens   2.children only
          int: 'Only the children were given pens.'

      b. Aa-váh-íya   ekanétá   anámwáne.
          2SM.PERF.DJ-give-PASS 10.pens   2.children
          'The children were given pens.'

(11) a.   Waa-nú-mwááryá   mweéri.
            3.PAST-PERS-shine   3.moon
            'The moon was shining.'

b.
```
              TP
            /    \
       mweeriⱼ   T′
               /    \
            waa-    EvidP
                   /    \
                -nu-    AspP
                       /    \
                  -mwaaryaᵢ  vP
                            /\
                          tⱼ  tᵢ
```

c.
```
                  XP
                /    \
            T'ₖ       TP
           /\        /\
  [waanumwaarya tⱼ]  mweeriⱼ   tₖ
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In summary, in Matengo the linearly postverbal subject is in situ in a vP internal position, whereas in Makhuwa the subject always raises to specTP but is followed by remnant movement of the whole verbal complex to establish the inverted order with a linearly postverbal subject.

This shows that superficially similar constructions (such as an agreeing subject inversion) may not have the same underlying structure (in-situ vs raised) and indeed the same interpretation (thetic or also narrow focus). Positing a [-topic] feature on the subject could work in Matengo (but see section 3), but it would be superfluous and/or counterproductive in Makhuwa, where the movement trigger is apparently associated with subject agreement in any case, whether the interpretation is topical or not.

3. Fewer features: Matengo subject inversion
We have seen that in Matengo, the subject is focal or thetic in VS order. The preverbal subject, on the contrary, is usually interpreted as the topic. Thus, the variation in word order could be accounted for by a [-topic] feature on the postverbal subject, and/or a [+topic] feature on the preverbal subject. However, assuming that movement is triggered by a separate feature, call it EPP, there is an alternative account. This is to assume an optional EPP feature on T that is *not* associated with any information-structural feature, but that must –by Interface Economy (Reinhart 2006)– influence the interpretation: only if the EPP feature is present is the subject moved, receiving a topical interpretation in intransitive sentences (12a).

Matengo (Yoneda 2011:756)
(12) a.   Ńkongu gu-hábwǐ:ke.
            3.tree   3SM-fall/PF
            (As a comment on a particular tree) 'The tree has fallen down.'

b. Gu-hábwiki ńko:ngo.
3SM-fall/PF   3.tree
(As a thetic sentence)'A tree has fallen down.'
(Answer for "What has fallen down?")'A tree has fallen down.'

Another reason why this alternative is more attractive is that not all preverbal subjects are topical: in transitive sentences the subject must be moved if it is not focal. That is, the subject in SVO order can be said to have an underspecified non-focal interpretation in transitives (13a).

(Yoneda 2011:761)
(13)   As an answer to 'what happened?'
a. Mundu   ju-hikití   ku-nyû:mba.
1.someone 1SM-arrive/PF 17-9house
'Someone has come to the house.'

b. *Ju-hikití   mundu   ku-nyû:mba.
1SM-arrive/PF 1.someone 17-9house

This shows us that we need to look very carefully at the generalisations we make about the interpretations we associate with specific positions, as a familiar interpretation such as topicalisation may not be the only one available and therefore the generalisation in terms of a [topic] feature may not be accurate. Furthermore, this case illustrates Minimalist thinking at work in minimising the number of features.

4. Fewer features: conjoint/disjoint and [focus]
Some eastern and southern Bantu languages have an alternation of verbal conjugations that differ in their relation with what follows the verb. One verb form is called 'conjoint', indicating a close relation between verb and following element, and the other form is called 'disjoint', indicating a looser relation.

Kirundi (Ferdinand Mberamihigo, p.c.)
(14) a. CJ Abâna   ba-á-nyôye   amatá.
children   2SM-PAST-drink   milk
'(The) children drank *milk*.'
B. DJ Abâna   ba-á-ra-nyôye   (amatá).
children   2SM-PAST-drink   milk
'(The) children drank (milk).'

These verb forms are formally distinguished by differences in
- TAM morphology (in prefixes -n-/-naa- and the final suffix -e/-ile),
- prosody: some languages mark the alternation tonally or prosodically,
- distribution with respect to phrase-finality: the conjoint form cannot appear sentence-finally.

The interpretational difference lies not in TAM semantics, but in information structure, where the element following a conjoint verb form always has a non-topical interpretation.

Zulu
(15) a. DJ Ngi-cul-<u>i:le</u>.
              1SG.SM-sing-PERF.DJ
              'I sang.'

      b. CJ Ngi-cul-<u>e</u>   *(ingo:ma).
              1SG.SM-sing-PERF.CJ 9.song
              'I sang a song.'

Makhuwa
(16) a. DJ Enyómpé tsi-<u>náá</u>-khúúrá   (maláshi).
              10.cows   10.SM-PRES.DJ-chew 6.grass
              'The cows eat grass.'

      b. CJ Enyómpé tsi-<u>n</u>-khúúrá   *(malashí).
              10.cows   10.SM-PRES.CJ-chew   6.grass
              'The cows eat grass.'

Although Zulu and Makhuwa show a superficially very similar pattern for the conjoint/disjoint alternation, there are structural and interpretational differences that show the two systems do not have the same basis and hence do not require the same features.

4.1. Zulu: indirect relation via constituency[2]

In both Zulu and Makhuwa there is a relation between the conjoint form and focus. Both Zulu and Makhuwa require focused non-subjects to occur in the position Immediately After the Verb (IAV), and this specifically needs to be after a verb in a conjoint verb form. To illustrate: wh elements and NPs modified by the focus particle 'only' need to appear IAV-CJ.

Zulu (Buell p.c.)
 (17) a. CJ [Ngi-bon-e   uSipho   kuphela.]
               1SG.SM-see-PERF.CJ 1.Sipho   only
               'I saw only Sipho.'

      b. DJ * [Ngi-m-bon-ile]   uSipho   kuphela.
               1SG.SM-1OM-see-PERF.DJ 1.Sipho   only

(18) a. CJ [U-cul-e   iphi   ingoma?]
               2SG.SM-sing-PERF 9.which 9.song

      b. DJ * [U-(yi-)cul-ile]   iphi   ingoma?
               2SG.SM-9OM-sing-PERF 9.which 9.song
               'Which song did you sing?'

Makhuwa
(19) a. CJ   O-lomw-é   ehopa paáhi.
                1.SM-fish-PERF.CJ 10.fish only
                'He caught only fish.'

      b. DJ   # Oo-lówá   ehópá paáhi.
                  1.SM.PERF.DJ-fish 10.fish only
                int: 'He caught only fish.'

(20) a. CJ   O-n-c'   éshéeni?
                2SG.SM-PRES.CJ-eat 9.what
                'What are you eating?'

      b. DJ   * O-náá-ca   eshéeni?
                  2SG.SM-PRES.DJ-eat 9.what

However, Van der Spuy (1993) and Buell (2006, 2008) argue that the conjoint/disjoint alternation in Zulu is not motivated by focus, but based on constituency: whenever the verb is final in the vP constituent it will have a disjoint form. This can be seen, for example, in the phonological phrasing: penultimate lengthening indicates the right boundary of a p-phrase. Only with the CJ form are verb and object phrased together.

Zulu (Buell 2005:64,66)
(21) a. DJ   Abafana [ba-ya-si-hlu:pha]   isaluka:zi.
                2.boys   2SM-PRES.DJ-7-annoy 7.old.woman

      b. CJ   Abafana [ba-hlupha   isaluka:zi.]
                2.boys   2SM-annoy 7.old.woman
                'The boys are annoying the old woman.'

Secondly, it can be seen in the correlation with object marking: the DJ form must be used if the verb bears an object marker corresponding to an object that immediately follows it. The object marker indicates that the corresponding DP is dislocated, leaving the verb constituent-final.

Zulu (Buell 2006, 2005, adapted)
(22) a. DJ   Abafana [ba-ya-yi-cu:la]   ingo:ma.
                2.boys   2SM-PRES.DJ-9-sing 9.song
                'The boys are singing a song.'

      b. DJ   * Abafana [ba-ya-cu:la]   ingo:ma.
                  2.boys   2SM-PRES.DJ-sing 9.song

      c. CJ   * Abafana [ba-si-hlupha   isaluka:zi.]
                  2.boys   2SM-7OM-annoy 7.old.woman
                int: 'The boys are annoying the old woman.'

A third argument is that in order to focus an element that is not normally in IAV, it is not possible to simply move that element to IAV position. Buell (2009) finds that

there is a 'no-crossing' constraint: focused elements cannot cross over an intervening element to appear in IAV position. Instead, the intervening element must be dislocated. In the canonical word order the recipient object *ubaba* 'father' is in IAV, as in (23a). When the theme object is questioned and hence focused, it should appear in IAV, but instead of simply swapping the two objects around (23b), the non-focal object *ubaba* must be dislocated and the object marker *-m-* referring to the dislocated object must be present on the verb (23c).

Zulu (S42, Buell 2009: 168, and p.c.)
(23) a. CJ   U-phek-ela   ubaba   inyama.
               2SG.SM-cook-APPL   1.father 9.meat
               'You are cooking Father some meat.'

      b. CJ   * U-phek-el-a   kudla   kuni]$_i$ ubaba t$_i$?]
               2SG.SM-cook-APPL 15.food   15.what.kind 1.father
               int. 'What kind of food are you cooking father?'

      c. CJ   U-m-phek-ela   t$_i$ kudla   kuni]   ubaba$_i$?
               2SG.SM-1OM-cook-APPL   15.food 15.what.kind   1.father
               'What kind of food are you cooking father?'

Fourth, elements following a disjoint verb form in Zulu are interpreted as anti-topical, old information (24). The conjoint form, on the other hand, is sensitive only to constituency: if anything follows the verb within the right constituent (vP), which can even be a resumptive pronoun, it will take a conjoint form (25).

Zulu (Van der Spuy 1993)
(24)   DJ   [Abafana ba-ya-si-hlupha]   isalukazi.
              2.boys   2SM-PRES.DJ-7OM-annoy 7.old.woman
              'The boys annoy her, the old woman.'

(25)   CJ   Indawo   lapho [ngi-cul-e   khona.]
              9.place   there   1S.SM-sing-PERF.CJ   there
              'The place where I sang.'

Conclusion for Zulu: a constituency requirement is sufficient to account for the distribution (and interpretation) of the CJ and DJ verb forms. The relation with focus is an indirect one: The non-topical interpretation is linked to the post-verbal domain (as proposed in Buell 2006, cf. Diesing 1992), and more specifically to the constituent containing the verb (vP), and this constituent is in turn linked to the form of the verb.

4.2. Makhuwa: direct relation with exclusive focus
This should be contrasted with the facts presented for Makhuwa in Van der Wal (2011). There I claim that the conjoint verb form has a direct connection with focus, more specifically with exclusive focus. There are no clear prosodic clues to suggest different phrasing, and there is no relation with object marking that could signal dislocation and hence the relevance of constituency. Furthermore, elements following the disjoint form are not necessarily interpreted as old/anti-topical – in fact they may be non-topical, as the disjoint form is used in thetic sentences (26).

Makhuwa
(26) DJ E-náá-rúpá   epúla!
          9SM-PRES.DJ-rain 9.rain
          'It is raining!'

Most importantly, there is a one-to-one correlation between the verb appearing in its conjoint form and the focused interpretation of the element in IAV position. One effect of the exclusivity interpretation is that non-specifics are not allowed to surface in IAV position, since there is nothing in the potential set of alternatives that can be excluded (instead a generic reading results, which does allow exclusion of other sorts). See van der Wal (2011) for further arguments.

Makhuwa (Van der Wal 2011: 1740)
(27) a. DJ Ko-ḿ-wéha   ńtthu.
              1SG.SM.PERF.DJ-1OM-look 1.person
              'I saw someone.'

      b. CJ * Ki-m-weh-alé   ntthú.
                1SG.SM-1OM-look-PERF.CJ 1.person
              int: 'I saw someone.'

      c. CJ Ki-m-weh-alé   ntthú,   nki-weh-álé   enáma.
              1SG.SM-1OM-look-PERF.CJ 1.person NEG.1SG-look-PERF 9.animal
              'I saw a person/human being, not an animal.'

Conclusion for Makhuwa: the conjoint/disjoint alternation is accounted for by reference to (exclusive) focus, not just constituency.
        This also results in the interesting contrast between Zulu and Makhuwa in (28) and (29): where the scalar focus particle 'even' is allowed to occur after a conjoint form in Zulu (since it can appear constituent-internally), but not in Makhuwa (since nothing can be excluded).

Makhuwa
(28) a. CJ * Ki-n-thotol-alé   hatá Láúra/Laurá.
                1SG.SM-1.OM-visit-PERF.CJ even 1.Laura
              int: 'I visited even Laura.'

      b. DJ Ko-ń-thótólá   hatá Láúra.
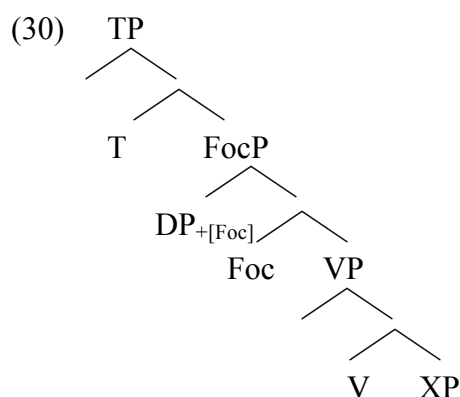   1SG.SM.PERF.DJ-1.OM-visit even 1.Laura
              'I visited even Laura.'

Zulu (Buell 2008:45)
(29) a. CJ [Ngi-bon-e   ngisho n-oSipho.]
              1SG.SM-see-PERF even   and-1.Sipho

      b. DJ [Ngi-m-bon-ile]   ngisho n-oSipho.
              1SG.SM-1.OM-see-PERF even   and-1.Sipho
              'I even saw Sipho.'

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In conclusion, although Zulu and Makhuwa are superficially very similar, deeper analysis reveals that in Zulu the conjoint/disjoint alternation is constituency-based and indirectly related to focus, whereas in Makhuwa it is focus-based.

4.3. Focus feature?

Considering that focus affects the word order and the verbal morphology directly, it is not unreasonable to posit a [focus] feature to account for the CJ/DJ alternation in Makhuwa.[3] This could be linked to a dedicated low focus projection (cartographic as in (30); see Belletti 2004, Ndayiragije 1999), or could be bound in situ by a focus operator (Hyman & Polinsky 2009).

(30)
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        TP
       /  \
      /    \
     T    FocP
         /   \
   DP+[Foc]   \
         Foc  VP
             /  \
            /    \
           V     XP
```

This predicts that the post-conjoint element always has a focal interpretation and that only one focal element is allowed per clause. Both are true for Makhuwa, but not for Zulu.

For Zulu the relation with focus is indirect and has been argued to be an interface effect. Zulu first language acquirers get more evidence for a relation with constituency and therefore do not postulate a formal [focus] feature on the basis of the CJ/DJ input. As mentioned above, the interpretation is due to a default mapping of vP-internal material as the comment (which is underspecified for a contrastive focal reading or a mere non-topical interpretation). This is in line with the conclusion reached for Zulu subject inversion below, where it will be shown that a [topic] feature may be active, but a (formally active!) [focus] feature is not necessary to derive the syntactic facts. A question is whether we do not need a [focus] feature at all in this case, or whether there is a possible semantic focus feature which happens to not have a formal syntactic counterpart. This is discussed in the next section.

5. Formal features

Formal syntactic features are expected to have effects in the syntax, most obviously in agreement and movement (and see conclusion). In the inflectionally rich Bantu languages, a *syntactically active* formal feature is expected to influence agreement. This can be Case, for those Bantu languages that have Case (see Van der Wal 2014), or agreement may be sensitive to topicality. Both case studies show how not every plausibly present IS feature also has syntactic effects, i.e. [topic] and [focus] can be formal [uF] or just semantic [iF] features.

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[3] See the representational approach in Van der Wal 2009 for a (non-BCC-compatible) alternative. Considering the specific interpretation as exclusive focus, the feature may not just be [focus] but in fact [exclusive] (if we choose to have that as a basic notion in information structure as well – see discussion of basic notions in Neeleman et al. (2009), Neeleman & Vermeulen (2012).

5.1. Subject inversion

Like in Matengo, the postverbal subject in Zulu can be focal or thetic, i.e. it is 'non-topical' but otherwise underspecified (31).

(31)　Ku-cula　　　abafana.　　　　　　　　　　　　　　　[Zulu]
　　　17SUBJ-sing　DET.2.boys
　　　a. 'The BOYS are singing.'
　　　b. 'There are boys singing.' (Buell 2006:13)

Although a [FOCUS] feature may be present here (for narrow focus, or for both narrow focus and thetic), there is no evidence that it is active in the syntax. This is different for [TOPIC]. If T is associated with a [topic] feature, subject agreement is determined by any topical DP. In Zulu, the verb agrees with the preverbal subject if it is topical (SVO order), but may also agree with a topical preverbal locative or instrumental (32), and in the absence of an overt topical DP takes a stage topic ('here and now') resulting in an expletive class 17 subject marker as in (31). This can be taken as an indication that the syntax is sensitive to [TOPIC] and hence that this is a formal feature in Zulu.[4] See also Zeller (2008) who proposes to analyse the subject marker as an antifocus marker.[5]

Zulu (Zeller 2012:134)
(32)　Isipunu　si-dla　　　uJohn.
　　　7.spoon　7SUBJ-eat　1.John
　　　'John is using the spoon to eat.' (Lit. 'The spoon is eating John.')

Not only does this account for the instances of subject inversion in Zulu, but it also accounts for the dislocation of topical elements from the vP (see previous section on conjoint/disjoint and focus).

5.2. Conjoint/disjoint

When there is a clear one-to-one correlation between movement and meaning, this is an indication that the feature present is not just semantic but also a formal feature that is visible in the syntax. This is most likely the case for [focus] in Makhuwa, as presented above, and even more clearly so in Kirundi. Kirundi has the conjoint/disjoint alternation, as illustrated in (33), and it is associated with a focus interpretation of the sentence-final constituent (rather than the constituent in IAV position). This is visible in the subject inversion in (34) which has a clear focus interpretation of the clause-final subject, and in the interpretation of different orders of postverbal objects in (35).

Kirundi (Ndayiragije 1999: 406)
(33) a.　DJ　Abâna　　　ba-á-ra-nyôye　　　　amatá.
　　　　　　　2.children　2SM-PAST-DJ-drink.PERF　6.milk
　　　　　　　'Children drank milk.'

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[4] Note that this also solves the potential intervention problem for locative inversion, since higher arguments, specifically the external argument, do not have a [topic] feature and will hence be skipped as a Goal.
[5] Though see Zeller (2012) and (2013) for an analysis of semantic locative inversion and instrument inversion as involving a different structure altogether.

    b.   CJ   Abâna   ba-á-nyôye   amatá.
                2.children 2SM-PAST-drink.PERF 6.milk
                'Children drank milk (not water).'

(Sabimana 1986: 191)

(34) CJ   H-a:-zan-i-ye   abâna   umupǐra Maríya.
            16-R.PAST-bring-APPL-ASP 2.children 3.ball   1.Mary
            'It is Mary who brought a ball for the children.'

(Sabimana 1986: 91)

(35) a.   CJ   Mudúga, y-a-hâye   abâna   igitabo.
                Muduga 1-F.PAST-give 2.children 7.book
                'Muduga, he gave the children A BOOK.'

    b.   CJ   Mudúga, y-a-hâye   igitabo abâna.
                Muduga 1-F.PAST-give 7.book. 2.children
                'Muduga, he gave THE CHILDREN a book.'

Ndayiragije (1999) proposes an analysis in which the subject moves to a low FocP, which means that the [focus] feature is not just a semantic feature but it must be visible for the syntax and a movement trigger is attached to it.

6. Conclusion

I propose that in a Minimalist spirit we need to answer three questions in order to see whether features like [focus] and/or [topic] are present in the derivation, i.e. whether they are grammaticalised as syntactic formal features. These were illustrated for Bantu comparative syntactic research into the morphosyntactic means they employ to express information structure.

1. Are the superficially similar phenomena (i.e. a certain linguistic stratey with a certain information structural interpretation) structurally the same?
2. Is there an alternative analysis that makes use of fewer features? (i.e. do we want to postulate a feature at all?)
3. Is there evidence that the feature is syntactically active? (i.e. if we do posit a feature, what sort of feature is it?)

These steps are essential preliminaries for a featural account of the crosslinguistic variation that is encountered in the morphosyntactic expression of information structure and indeed discourse-configurationality.

       With respect to the syntactic/formal nature of a feature, there are roughly four signals that a feature is formal and visible in the syntax (Biberauer 2014, cf. Wiltschko 2014), which all need further research.

a. Morphology without meaning: doubling in agreement and concord (cf. Zeijlstra 2008, Koeneman and Zeijlstra 2014)
b. Meaning without morphology: ellipsis, null marking (e.g. of 'singular' or 'nominative')
c. Multifunctionality of a morpheme depending on its structural position (e.g. Vietnamese modals, Duffield 2013)
d. Movement without meaning (e.g. abstract mvt trigger)

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Abbreviations and symbols
Numbers refer to noun classes, or to persons when followed by SG or PL.

A	augment	NEG	negation
APPL	applicative	OM	object marker
ASP	aspect	PASS	passive
C	complement case	PAST	past tense
CAUS	causative	PERF	perfective
CJ	conjoint	PREP	preposition
COP	copula	PRES	present tense
DJ	disjoint	REL	relative
F	formal	RPAST	recent past
FPAST	far past	S	subject
FS	final suffix	SJ	subjunctive
FUT	future tense	SM	subject marker
IAV	immediately after the verb	V	verb

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