

## 1. Introduction

- *Central Aspects of Kula's analysis:*
  - i. The focus-driven discourse configurability in Bantu (IAV-effects) is not primarily explained in syntactic, but in prosodic terms, pace Hyman (1999). Focus is not expressed by moving the focus constituent to a designated structural position, say (vP-internal) Spec,FocP, but by placing it in a designated prosodic position at the right edge of a *relevant phonological phrase*.  
→ *Bantu and European intonation languages both express focus by prosodic means*
  - ii. The prosodic prominence in Bantu is not absolute, but relative: There is no single phonetic correlate (stress, duration, pitch raising) to uniquely mark the focus constituent, but the relevant phonological phrase is 'in some sense prominent *in relation* to the other non-focused constituents in a sentence' (p.2).  
→ *some phonological phrases are more prominent than others*
- *Questions:*
  - i. How come ⇒ What qualifies a phonological phrase as more prominent than others?
  - ii. Is the notion of relevant phonological phrase subject to cross-linguistic variation?

- *The Plan:*
  - i. Prosodic focus marking from a wider African perspective: Prosodic Focus Marking in West Chadic? SECTION 2
  - ii. Cross-linguistic variation in relative prominence and the expression of focus by means of prosodic phrasing SECTION 3
  - iii. Focus Projection in Bantu? SECTION 4

## 2. Prosodic Focus Marking in Tangale/ Bole (West Chadic)?

- *Hypothesis:*

Prosodic focus marking in terms of phrasing is not restricted to Bantu, but also shows up in (some) Chadic languages, such as Bole/Tangale (Zimmermann 2005, Zimmermann, Gimba & Hartmann, in prep.), Dghwed'e (Hartmann & Zimmermann 2006), and possibly in Hausa.

### 2.1 Focus in Tangale (SVO(X))

- i. focus is realized in a position to the right of the verb, *though not necessarily IAV*.
  - ii. focus is *preceded* by a prosodic phrase boundary (≠ Bantu), as indicated by the blocking of vowel elision and tonal processes (Kenstowicz 1985, Tuller 1992, Kidida 1993).
- *Non-Subject Focus:* realized *in situ* in post-verbal position (1b) (no IAV ≠ Bantu)

(1) a. Q: What happened? *all-new* [Tangale (West Chadic)]  
 A: lak way-**ug** lándá.  
 Laku sell-PERF dress  
 ‘LAKU SOLD A DRESS.’ [Hartmann & Zimmermann 2007]

b. Q: What did Laku sell? *OBJ-focus*  
 A: (lak wai-**gó** )<sub>φ</sub> lándá vs.  
 Laku sell-PERF dress  
 ‘Laku sold a DRESS.’

- *Subject Focus*: subject inversion to post-verbal position  
 → **VOS<sub>F</sub>** (2a) (≠ IAV), or **VS<sub>F</sub>**, with no object present (2b).

(2) a. (way-**ug** land-í )<sub>φ</sub> **nónj** ? *SUBJ-focus*  
 sell-PERF dress-DEF who  
 ‘WHO sold the dress?’ [Hartmann & Zimmermann 2007]

b. Q: Who died? [Kenstowicz 1985]  
 A: (mud-gɔ)<sub>φ</sub> **malay**  
 die-PERF malay  
 ‘MALAY died.’

- *Syntactic accounts* of focus in Tangale as movement to a designated focus position:  
 Kenstowicz (1985): movement to the right; Tuller (1992): movement to the left followed by movement of [V-O] across the focus constituent  
 → prosodic phrase boundaries result from (string-vacuous) movement (epiphenomenon)

*BUT:*

- i. Subjects are the only focused constituents that do not occur in their canonical position.  
*All other constituents stay in situ, possibly followed by presupposed material, cf. (3ab):*

(3) a. SU V **whDO** PP a'. SU V PP **whDO**  
 lakɔ padgɔ **naŋ** [tɔm tiju] \* lakɔ padgɔ [tɔm tiju] **naŋ**  
 Laku bought what from Tijo Laku bought from Tijo what  
 ‘What did Laku buy from Tijo?’

b. SU V **whDO** TEMP b'. SU V TEMP **whDO**  
 lakɔ padgɔ **naŋ** ono \* lakɔ padgɔ ono **naŋ**  
 Laku bought what yesterday Laku bought yesterday what  
 ‘What did Laku buy yesterday?’

- ii. focused subjects can either occur immediately after the direct object, or at the end of the clause (Tuller 1992) → two focus positions for subjects? What about (3a',b')?
- iii. With VP-focus, the prosodic phrase boundary is located *between* V and OBJ (Hartmann & Zimmermann 2007)

- *Observable patterns:*
- |  |  |
|--|--|
| (4) a. (V) ( <b>S<sub>F</sub></b> ) (cf. 2b)       | b. (VO) ( <b>S<sub>F</sub></b> ) (cf.2a)             |
| c. (SV) ( <b>O<sub>F</sub></b> ) (cf.1b)           | d. (SVO) ( <b>n-PO<sub>F</sub>/ADJ<sub>F</sub></b> ) |
| e. (SV) ( <b>O<sub>F</sub></b> ) (PO/ADJ) (cf.3ab) | f. (VO) (PO/ADJ) ( <b>S<sub>F</sub></b> )            |

- *Emerging generalization:*

Focus constituents are (typically) realized at the right edge of a domain that comprises the verb and one or both of the verb's arguments (S,O) (exception: (4f)).

→ There is evidence that the right edge of this domain is aligned with an intonation phrase boundary (→ pause between SVO\_PP/ADJ, tonal phenomena) (Gimba 2000 on Bole)

(4') (SVO<sub>F</sub>), (VOS<sub>F</sub>), (VS<sub>F</sub>)

→ The domain in questions would seem to correspond to Kula's notion of 'clause' (p.7):

"Thus, in (5b) where the verb is in focus and hence final in its clause disjoint tone is seen on the verb form indicating that following constituents fall outside the verb's clause. In contrast to this, conjoint tone is seen in (5c-e) where the following constituent is incorporated into the verb's clause and is hence focused [my italics, MZ]"

- *A prosody-based analysis (Zimmermann 2005):*

Focus in Tangale is prosodically marked: focus constituent (with VP-focus: the focus exponent) forms the rightmost phonological phrase within the first intonation phrase:

→ focus occurs at the right edge of the relevant prosodic phrase (= Kula, see above)

- |       |  |          |  |         |
|-------|--|----------|--|---------|
| (4'') | a. ( )iP<br>(V) (S <sub>F</sub> )                | (cf. 2b) | b. ( )iP<br>(VO) (S <sub>F</sub> )                       | (cf.2a) |
|       | c. ( )iP<br>(SV) (O <sub>F</sub> )               | (cf.1b)  | d. ( )iP<br>(SVO) (n-PO <sub>F</sub> /ADJ <sub>F</sub> ) |         |
|       | e. ( )iP( )iP<br>(SV) (O <sub>F</sub> ) (PO/ADJ) | (cf.3ab) | f. ( )iP<br>(VO)(PO/ADJ) (S <sub>F</sub> )               |         |

## 2.2 Focus in Bole (SVO(X))

The syntactic distribution of focus constituents in Bole and Tangale is almost identical

→ unlike in Tangale, the focus constituent can/must be preceded by the particle *yé*

→ presence of *yé* the only way for detecting non-subject focus (French 2004, Gimba 2005)

- *Subject Focus:* subject inversion, resulting in VOS (5a), - or (without O) VS  
*yé* obligatory in transitive clauses (no semantic effect)
- *Non-Subject Focus:* *in situ* in post-verbal position (though not necessarily IAV),  
*yé* optional → contrastive interpretation

(5) Bole (West Chadic) [Zimmermann, Gimba & Hartmann, in prep.]

a. Q: Who planted the millet.' *SUBJ-focus*

A: (An) kàpp-úu mòrd'ó \*(yé) Léngì / mòndù  
(3pers) plant-PERF SG.M millet ye Lengi/ woman  
'LENGI/ A WOMAN planted the millet.'

b. Q: What did Lengi plant? *DO-focus*

A: Léngì kàpp-ák (yé) mòrd'ó.  
Lengi plant-PERF.SG.F PRT millet  
'Lengi planted MILLET'.

c. Q: Whom did Bamoi give the money to? IO-focus

A: Bámói ónú dódó yé m' mǒndù  
 Bamoi give-PERF.SG.M money DEF P woman  
 'Bamoi gave (the) money TO A WOMAN.'

→ As in Tangale, non-subject focus can be followed by presupposed material BUT *such material must be marked by a (second occurrence of) yé*, cf. (6).

(6) Q: What did Lengi plant yesterday?  
 A: Léngìkàpp-ák (yé) mòrd'ó nzònó yê  
 Lengi plant-PERF.F. PRT. millet yesterday PRT  
 'Lengi planted MILLET yesterday.'

• *Consequences of (6):*

- i. Focus is not marked by rightward or leftward movement to SpecFocP (possibly followed by remnant movement to the left, nor by pseudo-clefting)
- ii. Focus is preferably marked at the right edge of the clause; if this is impossible (because the word order of non-subjects is fixed), following material must be marked by *yé*.
- iii. *yé* is not a focus marker, but a background marker that takes semantic scope over material to its left (Schuh 2005)

→ the background-marking (= presuppositional) nature of *yé* is further illustrated in (7ab), where it associates with NP ( $\approx$ def-marker) and CP (with *when*-clauses) respectively:

(7) a. *mèccé yé í gòN*  
 journey PRT do-PERF good  
 'The journey was good.'

b. [Ndajjìto gàran] *yê*, ita kè yàwwe ko gâ [kùshi] *yê*  
 left went long PRT she also descend from at tree PRT  
 'When she had gone far away, she (another female) came down from the baobab.'

• *Q: What determines the scope of yê?*

→ presupposed material in (5b), (6) does not seem to form a syntactic constituent: (SV)

→ presupposed material in (5b) and (6) constitutes a prosodic constituent assuming that S and V can form a phonological phrase, see e.g. Prieto (2005) on Catalan.

(8) ((Léngì kàpp-ák)  $\phi$  -yé (mòrd'ó)  $\phi$ ) ip ((nzònó)  $\phi$  - yê) ip

→ *yé* attaches to the right edge of, and takes semantic scope over phonological phrases  $\phi$

• The negation particle *sa* exhibits a parallel behaviour:

(9) a. (Bamoi ndin) **sa** unshoo # ndin yé nzònó. scope: SV  
 B. came NEG today came PRT yesterday  
 'BAMOI didn't COME today. # It was YESTERDAY that he came.'

b. Bamoi ndin (unshoo) **sa.** ndin yé nzònó. scope: ADJ  
 B. came today NEG came PRT yesterday  
 'Bamoi didn't come TODAY, it was YESTERDAY that he came.'

- *Generalizations about focus placement in Bole:*
  - i. focus constituents in Bole (with or without preceding *yé*) form a phonological phrase in a prosodically prominent position at the right edge of **ip**: (... **XP<sub>F</sub>**)**ip**
  - ii. non-focused material to the right of the focus is only licensed when it forms a separate phonological/intonation phrase that is background-marked by phrase-final *yé*.

- (10) a. ( ( ) $\varphi$  - (y $\acute{e}$ ) ( **XP<sub>F</sub>** ) $\varphi$  )**ip**  
 b. ( ( ) $\varphi$  - (y $\acute{e}$ ) ( XP<sub>F</sub> ) $\varphi$  )**ip** ( ( ) $\varphi$  - (y $\acute{e}$ ) )**ip**

→ As in Tangale, the *relevant prosodic phrase* in Kula's terms would be the *rightmost phonological phrase  $\varphi$  of the leftmost intonation phrase iP*.

### 2.3 Relevance for Bantu

It seems that mere reference to the prosodic level of phonological phrases is insufficient for Bantu as well, and that reference must be made to the next higher level of intonation phrases in defining the notion of relative prominence:

- (11) b. (**tùkàbyáálá!**) $\varphi$  (ínyànjé mwí**bàlă** *màilò*) $\varphi$  (verb focus) [Bemba]  
 'We will PLANT maize in the garden tomorrow'  
 c. (**tùkàbyáálèényànjè**) $\varphi$  (mwí**bàlă** *màilò*) $\varphi$  (object NP focus)  
 'We will plant MAIZE in the garden tomorrow'  
 d. (**tùkàbyáálă mwí**bàlă****) $\varphi$  (ínyànjé *màilò*) $\varphi$  (locative PP focus)  
 'We will plant maize IN THE GARDEN tomorrow'  
 e. (**tùkàbyáálă **màilò****) $\varphi$  (ínyànjé *mwí**bàlă***) $\varphi$  (adverbial focus)  
 'We will plant maize in the garden TOMORROW'

- The generalization on p.10 'that the focused constituent occurs at the right edge of a phonological phrase' is insufficient for the Bemba data, as there are no additional foci on *màilò* in (11b-d), and on *mwí**bàlă*** in (11e).  
 → the *relevant phonological phrase* in (11b-e) is the first/leftmost phonological phrase in the utterance, and the same holds for Kanerva's (1990: 98) data from the *in situ* focus language Chichewa.

→ By replacing *phonological phrase* with *intonation phrase*, the generalizations for Bemba/ Chichewa and Bole-Tangale would become identical:  
*The focus constituent occurs at the right edge of the leftmost intonation phrase*

- *Questions:*
  - Q1:** *What is so special about the leftmost intonation phrase?*
    - i. Is it metrically prominent in some sense to be specified?
    - ii. Is it because (in SVO languages) it contains the verb, and thus the pivot of the clause?
  - Q2:** *What is the general mapping algorithm from syntax to prosody?*
    - i. Does the right edge of ip correspond to a syntactic domain: VP, vP, IP?
    - ii. **Can the position of the inverted subject be characterized in syntactic terms?**
- finding an answer to (ii) is a precondition for answering (i)

- *Suspicion*: There is no designated syntactic position for post-posed subjects in Bole:

⇒ **subject inversion = p-movement?** (≠ Kula's system)

i. anti-agreement effects: no movement from preverbal position

- (12) (An) ngad'u doya ye Bamoi sa, (an) ngadu-wo / \*-ko ye **Lengi**.  
 3sg ate cassava FM Bamoi NEG 3sg ate-AGR.M / AGR.F PRT Lengi  
 'BAMOI didn't eat cassava, LENGI ate cassava.'

ii. VOS<sub>F</sub> order: subject presumably not in vP-internal base position, unless we assume *obligatory* object scrambling (or V+O movement, cf. Tuller 1992);

rightward movement to SpecFP (Ndayiragije 1999) is not an option either, given that there are no reordering effects with non-subjects

iii. Occasionally, focused subjects can be doubly expressed in pre- and post-verbal position.

- (13) Q: Who ate the beans?  
 A1: **Lengi** ngad'ak odo ye **ita**.  
 L. ate beans DEF she  
 'LENGI, SHE ate the beans.'

Q: *What about subject inversion in Bemba and other Bantu languages?*

(Ndayiragije 1999: OVS<sub>F</sub> in Kirundi, Zerbian (2006): \*OVS<sub>F</sub>, \*VS<sub>F</sub>O, \*VOS<sub>F</sub> in Northern Sotho)

→ If VS<sub>F</sub>O is excluded in Bantu, the proposed analysis faces a problem !

### 3. Prosodically-driven focus marking: Cross-linguistic differences

#### 3.1 Bantu/ Bole-Tangale vs. Intonation languages

*relative prominence*                      *absolute prominence*

→ prosodic phrasing and the placement of the focus constituent in a particular position *in the relevant domain* only indicate prominence relative to other material in the clause.

→ The notion of *relative prominence* has so far received little attention in the literature, but see Büring (2008: section 7) for some tentative remarks;

alternatively, one could try to reformulate relative prominence in terms of absolute prominence relative to a given stage in the derivation/spell-out process (Kratzer & Selkirk 2007)

(14) *The Highest Phrase Condition on prosodic spellout – phrasing-based version:*

The highest phrase within the spellout domain of a phase corresponds to a prosodic major phrase in phonological representation.

→ This may work for IAV-phenomena in Bantu (see Cheng & Downing, this conference)

BUT: In order to account for the difference between SVO<sub>F</sub> and VOS<sub>F</sub> in Tangale/Bole, one would have to make the problematic assumption that prominence is assigned relative to the vP-phase for O<sub>F</sub>, and to the CP-phase for S<sub>F</sub>.

#### 3.2 IAV-Bantu vs. In situ (IS)-Bantu (Chichewa)/ Bole-Tangale

While the focus constituent precedes the right boundary of the relevant prosodic domain in all the languages discussed here, there are also interesting differences:

- *Two main differences (= two sides of the same coin):*

i. reordering with non-subjects in post-verbal domain:

(15) IAV-Bantu: YES (INVARIANT PROSODIC PHRASING)

IS-Bantu /Bole-Tangale: NO (FLEXIBLE PROSODIC PHRASING)

→ The impossibility of IAV in Bole/Tangale possibly due to independent morpho-syntactic properties: Bole/Tangale exhibit neither case marking on DPs nor object agreement on the verb, such that the grammatical function of a DP as subject or object is determined solely by its position relative to the verb

⇒ *nothing must intervene between V and O in Tangale-Bole*

→ unlike in IAV-Bantu, the relevant prosodic domain must be able to contain more material than the immediately post-verbal constituent.

ii. prosodic constituency:

(16) a. IAV-Bantu: (V XP<sub>FOC</sub>)

b. IS-Bantu: (V YP XP<sub>FOC</sub>)

c. Bole/Tangale: ((V YP) (XP<sub>FOC</sub>))

→ IAV-Bantu and IS-Bantu/Bole-Tangale differ in whether or not the relevant prosodic domain can contain just one, or more than one syntactic constituent next to the verb.

→ Another important difference between Bantu (as a whole) and Bole/Tangale is that focused post-verbal constituents in Bole/Tangale, including direct objects, do *not* form a prosodic constituent with the verb:

*The additional prosodic boundary in Tangale could be the result of a moraic focus marker, which is sometimes realized overtly as –n (see (4d)) (Truckenbrodt et al. 2008)*

There is morphological focus marking in other West Chadic languages (Guruntum)

- A common property of the prominent focus position in both language types is that it tends to follow the background (a reflex of the theme > rheme-distinction), while being reasonably close to the verb at the same time:

*Bantu:* XP<sub>FOC</sub> occurs at the edge of the phonological phrase containing the verb.

*Bole-Tangale:* XP<sub>FOC</sub> maps onto the phonological phrase immediately following the phrase containing the verb.

→ Any algorithm for the determination of the relative prosodic prominence of a phrase must make reference to the prosodic domain containing the main verb.

#### 4. Final remarks concerning focus projection

Any account of IAV-focus in Bantu must account for the (im)possibility of focus projection to the VP or the entire clause:

(17) a. (tù-kà-byáálà ínjànjé mwíbalā màìlò)φ (broad/VP focus) [Bemba]  
 1PLSM-FUT-plant 9maize 16garden tomorrow  
 ‘We will plant maize in the garden tomorrow’

- *Three questions:*
  - i. What prevents (17a) from expressing narrow focus on the final adverb? or
  - ii. What are the principles behind focus projection? How can the effect of the conjoint form in Bemba be 'overridden' by phonological phrasing (p.10)?
- Is narrow focus in Bemba obligatorily expressed by a combination of conjoint form plus phonological boundary after the IAV-constituent, cf. (18)?
 

narrow focus: CJ-V XP<sub>FOC</sub>)φ

  - iii. Can the focus project from the IAV-Object in (17b) to indicate VP-focus?

(17) b. (tùkàbyáálèényànjè)φ (mwííbàlǎ màílò)φ  
 'We will plant MAIZE in the garden tomorrow'

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