Word Accents and Tones in Sentence Perspective
Gösta Bruce Symposium, Lund University, 10 January 2007

Focus prosody without accent in Chichewa, Zulu and Chitumbuka*

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1 Introduction

- Much work on the interaction of prosody and focus assumes that, cross-linguistically, there is a necessary correlation between the position of main sentence stress (or accent) and focus. (See, for example, Reinhart 1995; Samek-Lodovici 2005, 2006; Selkirk 1984, 1995, 2004; Rooth 1992, 1996; Szendröi 2003; Truckenbrodt 1995):
  - This work proposes not only that sentence accent is conditioned both by syntactic factors and also by semantic ones, primarily focus (Bruce 1977, Gussenhoven 1984, 1996, 1999 and many others);
  - It also claims that focused constituents, as inherent prosodic heads, must have culminative prosodic prominence:

(1) STRESS-FOCUS (Samek-Lodovici 2005: 697):
For any XP_f and YP in the focus domain of XP_f, XP_f is prosodically more prominent than YP.

- However, as other work like Ladd (1996) and Hayes & Lahiri (1991) has pointed out,
  - The Stress-Focus correlation (1) is mainly supported by European word stress languages where cues for sentence accent – like culminative pitch movement and duration – co-occur on the head syllable of focused constituents, lending it unambiguous prosodic prominence in the Intonational Phrase.
  - A more universal cue to focus, they argue, is phonological (re-)phrasing: narrow focused constituents trigger different phonological phrasing from broad focused constituents.
  - Sentence accent is a cue to phonological phrasing, not directly to focus, in this approach, and is only a potential cue - not one found in every language.

- In this talk, I discuss three Bantu languages: Chichewa, Durban Zulu and Chitumbuka and show that:
  - In all three languages, phonological phrasing is conditioned by both syntax and, to some extent, focus;
  - All three languages have phrasal stress: lengthening of phrase-penult syllables, with the penult syllable of the utterance receiving extra lengthening.
  - The last word in a focus-conditioned phonological phrase does, then, receive phrasal stress.

* I would like to thank my collaborators and linguistic consultants for their cooperation in collecting and analyzing the data presented here: Al Mtenje and Bernd Pompino-Marschall for Chichewa, Merita Xaba, Leston Buell and Lisa Cheng for Durban Zulu, and Dyman Kondowe and Tiwonge Kalua for Chitumbuka. My thanks to the Centre for Language Studies in Zomba, Malawi, for hosting me during two research visits to Malawi, and to the NWO for a grant which supported a visit to Leiden, where the Durban Zulu research has been conducted.

These languages relevant for question of whether accent or phrasing is the primary correlate of focus.

- I argue that accent (stress) is not the primary correlate, as we find systematic mismatches between stress and focus:
  - Sentence stress – realized as extra penult lengthening – remains fixed on the final word of an utterance; it is not attracted to the phonological phrase containing a focused constituent.
  - Within phonological phrases, it is also the last word of the phrase, not necessarily the one in narrow focus, which realizes phrasal stress;
  - In Chitumbuka, a productive focus particle – the equivalent of English *also* – attracts phrasal stress to its verbal host, not necessarily to the word it places in focus.

The conclusion I argue for is that **re-phrasing, not stress or accent,** is the main prosodic correlate of focus in these languages.

2 Prosodic phrasing and stress in Chichewa, Durban Zulu and Chitumbuka

Chichewa and Chitumbuka are two of the three major languages of Malawi (Yao is the third). Durban Zulu is a dialect of one of South Africa's official languages.

This section
- First presents the phonological phrasing algorithms for the three languages.
- Then the prosodic correlates of the phonological phrasing – notably, phrasal stress – are discussed in more detail.

2.1 Phonological phrasing algorithms

In all three languages, both syntax and focus play a role in determining the phonological phrasing.

And in all three languages, lengthening of the phrase penult syllable is the easiest to identify – and most consistent – correlate of phonological phrasing. (Parentheses in the data indicate phonological phrasing.)

However, as we shall see, different syntactic constituents define neutral phonological phrasing in the three languages. Focus also plays a different role in each language.

2.1.1 Durban Zulu phonological phrasing

Durban Zulu phonological phrasing is almost identical to that of Xhosa, as analyzed by Jokweni (1995).

In Xhosa, Jokweni shows that phonological phrases are coextensive with the entire sentence in a neutral or broad focus context.

Work with Lisa Cheng (in collaboration with Merita Xaba) on Durban Zulu (Cheng & Downing 2006a, b), very closely related to Xhosa, shows the same wide phonological phrasing under broad focus.

As shown in (2), there is a phonological phrase break at the right edge of CP (roughly, a clause):

(2) Durban Zulu neutral phrasing

(a) The teacher read to the parents a letter.
[$_{CP}$ (úm-fúndísi ú-fúndel-ê: ábá-zal' ín-cwa:di)].
1-teacher 1-read to-TAM 2-parent 9-letter

(b) We believe that the children are playing outside.
[$_{CP}$ (Si-khólwa [$_{CP}$ úkúth' ábá-ntwána bá-dlalá phá:ndle)]].
we-believe that 2-child 2-play outside

(c) The children are bothering the old woman.
[$_{CP}$ (ízin-gáne zi-hlúph' ís-álúkwa:zi)].
10-child 10-bother 7-old woman

(d) The man who is wearing a hat saw the visitors.
[$_{CP}$ [$_{DP}$ [$_{CP}$ (Ín-dod' é-gqoke ísí-gqo:ko)]] í-bon-é ízi-vaká:shi)].
9-man REL9-wear 7-hat 9-see-TAM 8-visitor

(e) The teacher who found the ring will get a reward.
[$_{CP}$ [$_{DP}$ [$_{CP}$ (úm-fúnd'ísi ó-thól-é: ín-dánda:tho)]] ú-zo-thóla úm-klóme:lo)].
1-teacher REL1-find-TAM 9-ring 1-Fut-get 3-reward

(f) We like the hat the man is wearing.
[$_{CP}$ (si-thánd' [$_{DP}$ [$_{CP}$ ísí-gqok' ín-dod' é-si-gqok-ilê:-yo)]]].
we-like 6-hat 9-man REL9-OM6-wear-TAM-Rel

Focus only indirectly conditions phonological phrasing,

- Focused verb complements must occur in Immediately After the Verb (IAV) position; a phonological phrase break separates them from any other postverbal complements. – (3a, b, c)
- Clefts are obligatorily set off by a phonological phrase break. (3d, e)
- Cheng & Downing (2006b) argue that these phrasings are also consistent with the general phrasing algorithm that requires a prosodic phrase break at the right edge of CP:
    - The right edge of a cleft AND the right edge of IAV correspond to the right edge of CP.

(3) Durban Zulu focused postverbal complements and clefts
Right dislocations – WH particle and answer–both focused– are in IAV

(a) Q-What did the visitors buy for their families?
ízí-vaká:shi) zí-**yí**-thengel-ê:-ni) ímí-ndeni yâ:zo)?
10-visitors 10SM-OM4-buy for-TAM-what 4-families 4.their

A-The visitors bought clothing for their families.
ízí-vakáshí bá-**yí**-thèngel-é ízí-ngu:bo) ímí-ndeni yâ:bo).
10-visitors 2SM-OM4-buy for-TAM 10-clothes 4-families 2.their

(b) Q What did the teacher give to the winner?
úm-fúndís' ú-**m**-nik-ê:-ni) ó-wín-i:le)?
1-teacher 1-OM1-give-TAM-Q Rel1-win-TAM

A The teacher gave a medal to the winner.
úm-fúndí:sí) ú-**m**-nikez-é: í-méndlè:la) ó-wín-i:le).
1-teacher 1-OM1-give-TAM 5-medal Rel1-win-TAM

(c) Q Who is Sipho cooking the chicken for?
Ú-si:pho) ú-**yí**-phékéla ba:ni) ín-ku:khu)?
1-Sipho 1-OM9-cook for who 9-chicken
A Sipho is cooking the chicken for the visitors.
Ú-sípho ú-**yí**-phékél' ízí-vakâ:sh') ín-ku:khu).
1-Sipho 1-OM9-cook for 10-visitor 9-chicken

Clefts - note distinction in tone on the first syllable of the head of cleft vs. non-cleft

(di) *clefted subject*, Answers to 'Who found the ring that you lost?'
The teacher found the ring that I lost. = It is the teacher who found the ring that I lost.
(um-fúndí:si) (ó-thól-ê: índándatho e-bí-ngi-láhléké:le).
Cop1-teacher REL1-find-TAM 9-ring REL-TAM-I-lost

(dii) *non-clefted subject relative*
The teacher who found the ring will get a reward.
(úm-fúndísi ó-thól-é: ín-dánda:tho) úzo-thóla úm-klóme:lo).
1-teacher REL1-find-TAM 9-ring 1-Fut-get 3-reward

(ei) *clefted subject*, Answers, 'Who is playing at school?'
The children are playing at school. = It is the children who are playing at school.
(Abá-ntwa:n') (abá-dlal' é-sí-kóle:-ni).
COP2-child REL2-play Loc-7- school-Loc

(eii) *non-clefted subject relative*
The children who are playing at the school live near the school.
(Ábá-ntwán' ábá-dlal' é-sí-kóle:-ni) bá-hlál' édúzáne nésí-kó:le).
2-child REL2-play Loc-7-school-Loc 2-play near to7-school

To sum up,

- In Zulu, prosodic phrase breaks are syntactically conditioned by the right edge of CP
- Focus plays an indirect role in conditioning prosodic phrasing: clefts and IAV focus arguably are at the right edge of a CP, and so condition a prosodic phrase break.

2.2 Chichewa phonological phrasing

As Kanerva's (1990) detailed study of prosodic phrasing in Chichewa shows, under neutral phrasing a smaller syntactic constituent (roughly, XP) conditions phonological phrase breaks:

- The subject NP, VP (verb and all its complements) and a Topic phrase are the three syntactic subconstituents of the clause in Kanerva's analysis.
- Each of these is parsed into its own phonological phrase:

(4) Chichewa neutral phrasing (Kanerva 1990)
(a) (fíisi) (a-na-gúlá chi-péwá ku-San Francíscó dzuulo)
1.hyena 1-TAM-buy 7-hat Loc-San Franciso yesterday
The hyena bought a hat in San Francisco yesterday.
(b) (aána) (a-na-góná m-nyumbá yá mávúuto)
2.child 2-TAM-sleep Loc-9.house 9.of Mavuto
The children slept at Mavuto's house.
(c) (a-na-ménya nyumbá ndí mwáála)
1-TAM-hit 9.house with rock
He hit the house with a rock.

Unlike Durban Zulu, Chichewa allows in situ focus of verb complements.

- As shown below, a prosodic phrase boundary follows a constituent in focus.
- VP-final focused constituents are preceded by a phonological phrase boundary.
- Non-focused VP complements are each parsed in to a separate phonological phrase.

Focus and phrasing in Ntcheu Chichewa (Downing et al. 2005)

(5)

(a) anáménya nyumbá ndí mwáálá 'S/he hit the house with a rock.'
s/he hit house with rock

(b) (A-ná-ménya nyumbá ndí mwáálá). – same as (4c), above
[neutral declarative]

(c) (A-ná-ménya nyuúmbá) ↑ (ndí mwáálá).
[Answers the question: 'What did he hit with the rock?']

(d) (A-ná-ménya nyuúmbá) (ndí mwáálá) ↑.
[Answers the question: 'S/he hit the house with what?']

(e) (A-ná-méenya) ↑ (nyuúmbá) (ndí mwáálá).
[Answers the question: 'What did he do to the house with a rock?']

(6)

(a) (Mfúumu) (i-ná-pátsa mwaná zóóváala).
chief gave child clothes
[neutral declarative]

(b) (A-ná-´m-patsa zóóváala) ↑ (mwaáná).
[Answers the question: 'What did they give to the child?'; placing answer in IAV gives it more emphasis]

(c) (A-ná-pátsa mwaáná) ↑ (zóóváala).
[Answers the question: 'Who did they give clothes to?']

(d) (A-ná-pátsa mwaáná) (zóóváala) ↑.
[Answers the question: 'They gave the child what?']

To sum up,

- In Chichewa, prosodic phrase breaks are syntactically conditioned by the major subconstituents of the clause: Subject, VP and Topic.
- Focus plays a direct role in conditioning prosodic phrasing: constituents within VP can be focused in situ and must be followed by a phonological phrase break.

2.3 Chitumbuka phonological phrasing

Chitumbuka is the least well studied of these three languages. There is no thesis length work on phonological phrasing or even a grammar of the language. (See Downing (2006) for a preliminary sketch of the syntax and prosody of focus.)

Neutral phonological phrasing is Chitumbuka is conditioned by the right edge of DP (a noun phrase).

- Like in Chichewa, this means that Subject NPs and Topics are phrased separately
- In contrast to Chichewa, the entire VP does not form a single phonological phrase unless the VP is very short. Instead,
    - V plus first complement form a single phrase;
    - Following complements often phrased separately.
- That is, the neutral phrasing of VPs in Chitumbuka is essentially identical to the focus-induced phrasings of the VP shown in (5) and (6). Compare especially (7g) below with (5c, d):

(7) Chitumbuka neutral phrasing (Downing 2006; field notes)

(a) (ti-ku-phika síima) 'We are cooking porridge.'
we-TAM-cook porridge

(b) ([β]-áana) ([β]a-ku-[β]a-vwira [β]a-bwéezi)
2-child 2-TAM-2.OM-help 2-friend
'The children help the friends.'

(c) (ti-ka-wona mu-nkhúngu ku-msíika).
we-TAM-see 1-thief LOC-market
'We saw a thief at the market.'

(d) ([β]-anakáazi) ([β]a-ka-sona vy-akuvwara vya mu-kwâ:ti.)
2-woman 2-TAM-sew 8-clothes 8.of 1-bride
'The women sewed clothes for the bride.'

(e) (m-nyamâ:ta) (wa-ka-timba nyû:mba) (na lî:bwe).
1-boy 1-TAM-hit 9.house with 5.rock
'The boy hit the house with a rock.'

Because the phonological phrases are already very short, there is little opportunity for focus to have an influence.

However, we do find the following focus-conditioned phonological rephrasings:

- Answer to a Wh-question and Wh-question particle
- Focus morphemes

are followed by an obligatory phonological phrase break.

(8) Wh-Qs and As on verb complements

(a)

Q- What did the woman carry to the market for her older sister?

(Mw-anakâ:zi) (wa-ka-yeyera vî:chi) (mu-kuru w-ákhe ku-m-sî:ka)?
1-woman 1-TAM-carry for 7.what 1-older sister 1-her Loc-3-market

A- The woman carried a heavy basket to the market for her older sister.

(Mw-anakâ:zi)(wa-ka-yeyera chi-tete chi-zî:to)(mu-kuru w-ákhe ku-m-sî:ka).
1-woman 1-TAM-carry for 7-basket 7-heavy 1-older sister 1-her Loc-3-market

(b)
Q- Who did you buy the green mangoes for at the shop?
(U-ka-mu-gulira njâ:ni) (mango ya [β]î:si) (ku-gorosâ:ri)?
1-TAM-1.OM-buy for 1.who 9.mango 9.of unripe Loc-grocery
A- I bought green mangoes for my friend at the shop.
(N-kha-mu-gulira mu-nyâ:ne) (mango ya [β]î:si) (ku-gorosâ:ri).
I-TAM-1.OM-buy for 1-my friend 9.mango 9.of unripe Loc-grocery

(10) Focus morphemes – *pera* 'only'; *-so* 'also'; *yaye* 'no; not' (Downing 2006)
(a) *pera* 'only'
([β]a-léndo *péera*)([β]a-ka-[β]onésya pamúzi páawo)
2-visitor only 2-TAM-show homes their
'They showed their homes only to the visitors.'
(b) *-so* 'also'
(Ku-limiliráa-*so*) (ngóomá)?
You/TAM-weed-also maize
'Are you also weeding the *maize*?'
(c) *yaye* 'no; not'
(m-bwéengu)(wa-ka- lísya *yáaye*)(mwáana).
1-monkey 1-TAM-make cry not child
'The monkey did not make the child *cry*.'

To sum up,
- In Chitumbuka, prosodic phrase breaks are syntactically conditioned by noun phrase edges, though an entire VP can be parsed into a single phonological phrase if it is short.
- Focus plays a direct role in conditioning prosodic phrasing:
  - Constituents within VP can be focused in situ and then must be followed by a phonological phrase break.
  - Focus particles must also be followed by a phonological phrase break.

2.2 Prosodic phrases are a domain for stress assignment

As we have seen,
- In all three languages, phonological phrasing is conditioned by focus, at least indirectly.
- In all three languages, prosodic phrase is the domain for assignment of stress:
  - lengthening of phrase-penult syllables, with the penult syllable of the sentence-final prosodic phrase receiving extra lengthening.
  - This has been characterized as the equivalent of (phrasal) stress in work since (Doke 1954); see Downing (to appear) for a recent survey.
  - Indeed, duration is a common cross-linguistic correlate of stress, as noted in work like Hyman (1977) and Odden (1999).

To sum up this section,
- So far, these three Bantu languages seem to support the Stress-Focus correlation in (1):
- Focused constituents often have a prosodic phrase boundary at their right edge, and so receive phrasal stress.

BUT

- Is it possible to derive phrasing from stress prominence in these languages, as Selkirk (2004) argues, instead of deriving stress from phrasing as has been assumed in presenting the data?

3 Mismatches between stress and focus

In this section I argue that the following mismatches between stress and focus in Chichewa, Durban Zulu and Chitumbuka show that phrasing, rather than stress, is the primary correlate of focus:

- Sentence stress – realized as extra penult lengthening – remains fixed on the final word of an utterance; it is not attracted to the phonological phrase containing a focused constituent.
- Within phonological phrases, it is also the last word of the phrase, not necessarily the one in narrow focus, which realizes phrasal stress.
- In Chitumbuka, a productive focus particle, *-so* – the equivalent of English *also* – attracts phrasal stress to its verbal host, not directly to the word it places in focus.

3.1 Sentence stress remains fixed in utterance final position

The Stress-Focus correlation in (1), repeated below, requires focused constituents, as heads of the Intonational Phrase, to have the highest degree of prosodic prominence within their domain:

(1) STRESS-FOCUS (Samek-Lodovici 2005: 697):
For any XP_f and YP in the focus domain of XP_f, XP_f is prosodically more prominent than YP.

In all three of these languages, though, the highest degree of prosodic prominence in the sentence is fixed on the penult syllable of the final phonological phrase in the sentence.

- As noted in work like Kanerva (1990) and Downing et al. (2005), the sentence-penult syllable is significantly longer than sentence medial penults.
- Informal phonetic studies of Durban Zulu and Chitumbuka show the same pattern.

That is, the final constituent in a sentence is always the most prosodically prominent, if we use duration as a consistent correlate of stress, whether it contains the focused constituent or not.

This clearly violates the Stress-Focus correlation, which requires that

- Either stress should be flexible, as in English and other Germanic languages, and move to the stressed position;
- Or word order should be flexible, as in Italian and Hungarian (Samek-Lodovici 2005, Szendroï, Zubizaretta), so focused words can move to the stressed position;
- Or, as in French (Beyssade et al., Féry), pitch could be compressed in post focal constituents, lending focused constituents passive prominence.

3.2 Last word of the phrase, not one under narrow focus, receives phrase stress

In the above data, entire XPs were in focus, and often just one word XPs.

In all of these cases, almost necessarily, phrasal stress occurs in a position that is consistent with scope of focus, either the stressed word only or the entire XP.

Examples of contrastive stress from Chitumbuka (Downing field notes) show that:

- Phonological phrase boundaries fall at the right edge of the NP containing the focused word;
- Phrase falls consistently on the phrase penult syllable;
- This does not change if the focused word is not at the right edge of its NP.

These points are illustrated by the following examples,

- where contrastive focus is clearly on the word towards the left edge of the phonological phrase,
- but phrasal stress is assigned to the non-focused word which occurs at the phonological and syntactic phrase boundary:

(11)

(a) Q- Did the child carry the basket for an old *man* or an old *woman*?

(Mw-â:ná) (wa-ka-yeyera chi-tê:te) (dada mu-↑chekû:rû:) (panyákhe mw-anakazi mu-chekû:ru)?

1-child 1-TAM-carry for 7-basket 1.man 1-old or 1-woman 1-old

A1- The child carried the basket for an old *man*.

(Mw-â:na) (wa-ka-mu-yeyera chi-tê:té) (dada mu-chekû:ru).

1-child 1-TAM-1.OM-carry for 7-basket 1.man 1-old

(b)

Q- Is he building the new houses *in* the village or *outside* the village?

(Kâ:si, wa-ku-zenga nyumba zî:-pyá) (mu-kati mwa-↑mû:zî:) (pa-nyákhe ku-walo kwa-mû:zi)?

Q 1-TAM-build 10.house 10-new Loc-in Loc-village or Loc-outside Loc-village

A- He is building *some* new houses *in* the village (and) *some outside*.

(Wa-ku-zenga nyumba zi-nyákhe mu-kati mwa-mû:zí) (zi-nyákhe kuwâ:lo).

1-TAM-build 10.house 10-some Loc-in Loc-village 10-some Loc-outside

Even within phonological phrases, then, position of focus and position of phrasal stress do not always match.

*3.3 Focus particle –*so *triggers phrase stress on host, not word it places in focus*

In English, sentential accent marks all types of focus, including focus on the italicized argument of 'also' in (12c):

(12)

(a) Where are you going to eat dinner on Friday?
We are going to *an Italian restaurant* for dinner on Friday.

(b) We are going to an *Italian* restaurant, not a *Thai* restaurant.

(c) We are <u>also</u> going to an Italian restaurant on *Saturday* night.

However, analogous focus particles in Chitumbuka, a Bantu language spoken in Malawi, do not conform to this proposal,

- the position of the particle and/or prosody do not always highlight the focused argument.
- The association-with-focus verbal enclitic, *-so* 'also; again' illustrates the problem most clearly.

As shown in (13) - (16),

- It attaches only to verbs.
- It is followed by a phonological phrase boundary (indicated with parentheses).
- The verb host realizes the prosody – penult lengthening and contour tone – which motivate the phonological phrase boundary.

Notice in the data below that the verb is not always the argument of this clitic even though it is always the host.

- Further, a phonological phrase boundary consistently follows the clitic, not its argument – the constituent in focus.
- This leads to potential ambiguity about what is in focus.
  - For example, in (15b), the subject, the verb, the verb phrase or the object could be interpreted as the argument of *-so* without the context in (15a) to disambiguate:

(13)

(a) (n-khu-limilíra ma-púuno).
I-TAM-weed 6- tomatoes
'I am weeding tomatoes.'

(b) (Ku-limiliráa-*so*) (ngóomá)?
You/TAM-weed-also maize
'Are you also weeding the maize?'

(14) The friend who killed the snake also brought father to the hospital.
(Mu-nya[β]o uyo wa-ka-yi-koma n-jô:ka) (ndiyo wa-k-izáa-*so*) (na
1-friend 1.REL 1-TAM-9.OM-kill 9-snake is.who 1-TAM-bring-also with
β]a-dada [β]-â:[β]o) (ku-chi-patâ:la).
2P-father 2P-their Loc-7-hospital

(15)
Q- Is it only the doctor who helps the teacher?
(Ni [β]a-dokotala péera) (a[β]o [β]a-ku-vwíra [β]a-sambíizíi)?
COP 2P-doctor only 2P.REL 2P-TAM-help 2P-teacher
A- No, the chief also helps the teacher.
(Yâ:yí), ([β]a-fû:mu) [β]a-ku-vwiráa-*so*) ([β]a-sambíizi).
no 2P-chief 2P-TAM-help-also 2P-teacher

(16) Q-Are you going to Lilongwe today?

(Kâ:si),	(mu-ku-luta	ku-Lilóongwe)	(mw-ahúunóo)?
Q	you-TAM-go	Loc-Lilongwe	today

A- Yes, and I am also going to Salima.

(Ê:nya),	(n-khu-lutáa-*so*)	(ku-Salíima).
yes	I-TAM-go-also	Loc-Salima

Work by Rooth (1992) on focus-related morphemes has argued that focus particles like these should be morphologically and phonologically uninteresting:

- The focused argument of these morphemes should be made prominent
  - either phonologically, by having the same focus prosody as other focus constructions, like Q/A pairs and in situ contrastive focus;
  - or morphologically, by adjacency of the focusing morpheme and its argument.
- The proposal that all focus constructions – including focus-related morphemes – should have the same prosody is also implicit in phonological theories of focus prosody which assume the STRESS-FOCUS correlation in (1).

The Chitumbuka data raises problems for these proposals,

- the focus argument of enclitics is not always made prominent by either phonology or morphology.
- Data like (15b) shows that *-so* is cliticized to the verb even if the subject is focused.
  - As a result, this particle does not make its focused argument morphologically prominent by being morpho-syntactically adjacent to it.
- Phonologically, it is the focus-related morphemes themselves which trigger phonological rephrasing.
  - Their focused arguments are not highlighted by any special prosody.

4 Conclusion

To conclude, let us return to the questions that we started off with:

- Do Chichewa, Durban Zulu and Chitumbuka have sentence accent?
  - **No**, if by accent we mean a pitch change which anchors to the stressed syllable.
    Even Chitumbuka, with no lexical tone, does not have a sentence pitch accent distinct from phrasal accent in declaratives.
  - **Yes**, if by sentence accent we mean sentence stress.
    In all 3 languages penult lengthening is exaggerated in the sentence final phrase, and this could be interpreted as sentence stress.

- Does sentence stress correlate with focus?
  - **No**, sentence stress is fixed at the end of the sentence. Focus can occur in an earlier phonological phrase.

- Does phrasal stress correlate with focus?
  - **No**, phrasal stress is also fixed on the phrase-penult syllable. The focused word need not be in a position in the phrase to receive phrasal stress.
  - **No**, focus particles highlight their host, not necessarily their arguments.

In short,

- These are languages where re-phrasing is the main prosodic cue to focus.
- Sentence accent is conditioned only by syntax, and plays the important demarcative function of identifying sentence edges.

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