Phrase-level prosodic smothering: Evidence from Makonde

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Issue: Capturing prosodic idiosyncrasy

[1] Syntax to prosody interface - involves default maps

- Syntactic category → prosodic category [Selkirk 2009, 2011; Elfner 2012, 2015; a.o.]
  - X°→ ω (phonological word)
  - XP → φ (phonological phrase)

[2] The ideal mapping can be disrupted due to:

- **Phonological markedness** (EQUALSISTERS, STRONGSTART, etc.) [Selkirk 2011; Myrberg 2013; overview in Ito & Mester *to appear*]
- **Morphological/lexical specification** overriding default [Inkelas 1990; Paster 2006; Bennett, Harizanov, & Henderson 2018; a.o.]

[3] Along which **typological axes** do the latter idiosyncrasies vary, and how to **model** them within **interface architecture**?

[4] **We support:** (i) idiosyncrasies as subcategorization, (ii) subcategorization is satisfied at spell-out, (iii) defaults apply after

Case study: The Bantu language Makonde

[5] Morphological words form phonological phrases, diagnosed by presence of **penultimate lengthening** (length is non-contrastive)

- /sílólo/ → $_{\varphi}$(síl**óó**lo) 'mirror'
- $_{\varphi}$(Noun) $_{\varphi}$(Adj) $_{\varphi}$(Verb)
  $_{\varphi}$(síl**óó**lo) $_{\varphi}$(síkúm**ee**ne) $_{\varphi}$(sindi**i**gwa)
  7-mirror 7-big 7-PAST-fall '(A) big mirror fell'

[6] Nouns appear with several types of post-nominal modifiers

[7] Whether a post-nominal modifier forms **1 phonological phrase φ** with noun or **separate phrases** is an idiosyncratic property

- **2 φ** $_{\varphi}$(N) $_{\varphi}$(**NUM**) (viloôngo) (**viviíli**) '**two** pots'
  $_{\varphi}$(N) $_{\varphi}$(**ADJ**) (língéela) (**líkúmeêne**) '**big** mango'
- **1 φ** $_{\varphi}$(N **DEM**) (vílóngó **aviilá**) '**those** pots'
- **1 ~ 2 φ** variation
  $_{\varphi}$(N **POSS**) (síjúlú **sàángù**) ~
  $_{\varphi}$(N) $_{\varphi}$(**POSS**) (síjúùlù) (**sáàngù**) '**my** hat'

[*Zanzibar Makonde* - Manus 2003, 2018]

Phonological phrasing in NP across dialects

Source	Dialect	POSS	DEM	ADJ	NUM	
Leach (2010)	Plateau Shimakonde	+	±	-	-	
Devos (2004)	Makwe	+	±	-	-	
Manus (2003,2018)	Zanzibar Simakonde	±	+	-	-	+ 1 φ
Kraal (2005)	Chinnima	+	+	-	-	2 φ
Liphola (2001)	Coastal Shimakonde	+	+	+	-	± 1~2 φ
Odden (1990a,b)	Chimaraba	+	+	+	+	
Odden (1990c)	Chimahuta	+	+	+	+	

[8] **Key observations**:

- Robust cross-dialectal variation in triggers of single φ-phrase
- Both triggers and non-triggers can be heads and phrases

φ-phrase-level prosodic smothering

[9] What phrasing results when you have multiple modifiers?

- $_{\varphi}$(N) $_{\varphi}$(ADJ) $_{\varphi}$(GEN) $_{\varphi}$(NUM)
  (viloôngo) (víkúmeêne) (vyá naáswe) (viviíli)
  8-pot 8-big 8-GEN white 8-two
  'two big white pots' [cf. *$_{\varphi}$(N ADJ GEN NUM)]
- $_{\varphi}$(N ADJ GEN NUM **DEM**)
  (vílóngó víkúméné vyá náswé vívíli **aviilá)**
  8-pot 8-big 8-GEN white 8-two **DEM8**
  '**those** two big white pots' [*Zanzibar Makonde* - Manus 2018]

[10] **Prosodic smothering** (Bennett, Harizanov, & Henderson 2018): idiosyncratic prosodic requirement by an outer morpheme which overrides interior default prosodification – i.e. $_{\varphi}(x)\ _{\varphi}(y)$ but $_{\varphi}(x\ y\ z)$

[11] Makonde shows that smothering is not limited to affixes/clitics, nor is it limited to only prosodic words ω [i.e. **Phrasal Phonology**]

Data point 1: Smothering targets LEXHEAD

[12] Trigger of prosodic smothering must **include the LEXHEAD N**

• $_{\varphi}$(N	ADJ	GEN	NUM	**DEM**	)	Targets N
• $^{x}_{\varphi}$(N)	$_{\varphi}$(ADJ)	$_{\varphi}$(GEN)	$_{\varphi}$(NUM	**DEM**	)	DOES NOT
$^{x}_{\varphi}$(N)	$_{\varphi}$(-)	$_{\varphi}$(-)	$_{\varphi}$(-	+	)	TARGET N
$^{x}_{\varphi}$(N)	$_{\varphi}$(-)	$_{\varphi}$(-	-	+	)	
$^{x}_{\varphi}$(N)	$_{\varphi}$(-	-	-	+	)	

Data point 2: Smothering is inward-oriented and leftward-oriented

[13] Targets morphologically **inward structure, not outward**

	LEXHEAD	INNERMOD	OUTERMOD	
• $_{\varphi}$(N	+	)	$_{\varphi}$(-	) **Inner smothers inward only**
$^{x}_{\varphi}$(N	+		-	) *No "outward smothering"*

[14] Targets morphologically **leftward structure, not rightward**

- **1φ** $_{\varphi}$(N **DEM**) ayuma mámbéndé **yáanó**
  'he is buying **these** skins'
- **2φ** $_{\varphi}$(**DEM**) $_{\varphi}$(N) ayakulá **víinó** vikáapu
  'he's taking **these** baskets'

[*Chimaraba Makonde* - Odden 1990a)

Data point 3: Parasitic outward smothering

[15] Smothering can be outward if '**overshoots**' the LEXHEAD N

- We call this '**parasitic outward smothering**'
- $_{\varphi}$(N_1) $_{\varphi}$(**na** N_2) $_{\varphi}$(n-kóongwé) $_{\varphi}$(**na** li-putipúúti)
  'woman **and** sheep'
- $_{\varphi}$(N_1 na {N_2 **ADJ**}) $_{\varphi}$(n-kóngwé ná lí-pútípúti **lí-díkídiîki**)
  'woman and {**small** sheep}'

[*Coastal Shimakonde* – Liphola 2000,2001]

Analysis: Representation of trigger

[16] Following BHH, triggers have a **vertical subcategorization** frame for φ - i.e. must be **contained** within a **φ-phrase**

	+ (Trigger)	-
Subcat.:	$_{\varphi}(_i\ x_i\ )_i$	Ø
UR:	/ DEM /	/ ADJ /

Subcategorization frames are satisfied at spell-out (the interface)

[17] The subcategorization frame associated with the trigger must be satisfied at spell-out, which translates syntactic features and constituency to phonological counterparts

syn	spell-out	phon
[[N°] Adj°]	→	$_{\omega}$(N) $_{\omega}$(ADJ)
[[[N°] Adj°] Dem°	→	$_{\varphi}(_i$ $_{\omega}$(N) $_{\omega}$(ADJ) $_{\omega}$(**DEM**$_i$) $)_i$

[18] Interface constraints at spell-out: (i) MATCHWORD: X° → ω
(ii) ALIGN-R(**Trigger**,φ) (iii) ALIGN-L(**Domain**,φ)

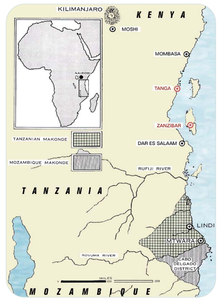
Default prosodification *after* spell-out

[19] Default prosody: $_{\varphi}(\quad)$ $_{\varphi}(\quad)$ (i) ALIGN-L(ω,φ)

- $_{\omega}$(N) $_{\omega}$(ADJ) → $_{\omega}$(N) $_{\omega}$(ADJ) (ii) ALIGN-R(ω,φ)
- *Cf.* $_{\varphi}(_i$ $_{\omega}$(N) $_{\omega}$(ADJ) $_{\omega}$(DEM$_i$) $)_i$ → *$_{\varphi}(_i$ $_{\omega}$(N) $)_j$ $_{\varphi}(_j$ $_{\omega}$(ADJ) $)_j$ $_{\varphi}(_j$ $_{\omega}$(DEM$_i$) $)_i$

[20] Phon-constraints: (i) IDENT-φ *$_{\varphi}(_j$ $_{\omega}$(N) $)_j$ $_{\varphi}(_j$ $_{\omega}$(ADJ) $)_j$ $_{\varphi}(_i$ $_{\omega}$(DEM$_i$) $)_i$
(ii) INDEXATION: *$(_i$ ...$()_j$...$)_i$

Dialect	-aani 'which, what kind'	POSS	DEM	ADJ	connex-ive 'of X'	RELATIVE CLAUSE	-ngápi 'how many'	NUM	-óe 'many'	-lida 'which'	POSS PHRASE	-éne 'itself'	N-N	-ᴴnji 'other'	na __ 'with, and'	-éka 'on one's own'	yé __ -lida/ -ngápi 'which'	-naángo 'the same'	chiini 'only'	viila 'only'	-iingi 'many'	-taándi 'first'	-oté 'the whole'	-ohe-óhe 'all'	uúti 'all'	pa-diiki 'a few'	kila __ 'each'	% +
Zanzibar M.	+	±	+	-	-	-	-	-	-		+	±	-	-	-											-	-	19%
Plateau M.		+	±	-	-	-		-	-		-	+		-						+		-			-			23%
Makwe	+	+	±	-	±	-	-	-		+		+	-	-		+							-					36%
Chinnima	+	+	+	-	-	±	-	-	-	-		+	-	-	-	+	+	+	+					-				42%
Coastal M.	+	+	+	+	+	+		-	-		+		+		-							+			-	-		64%
Chimaraba	+	+	+	+	+		+	+	+	+	+										+		+					100%
Chimahuta	+	+	+	+			+	+		+														+				100%
% +	100%	86%	71%	43%	33%	20%	40%	29%	20%	75%	75%	75%	25%	0%	0%	100%	100%	100%	100%	100%	100%	50%	50%	50%	0%	0%	0%	



Map from Manus (2003)

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