

Allomorphy between tone and segments: an autosegmental account

Main Claim

A **monorepresentational analysis** for the allomorphy in Yucunany Mixtepec Mixtec (=YM) is possible. The alternation between realization of only an additional L-tone or additional segments in the 1.Sg follows since the latter is **prosodically defective** and only realized as a last resort.

Allomorphy in Yucunany Mixtepec

(Pike and Ibach, 1978; Paster and Beam de Azcona, 2004a,b; Paster, 2007)

Background

- a dialect of Mixtepec Mixtec (~12,000 sp.); Otomanguan
- three tones: H (=V̇), M (=V), L (=V̇), and contour tones
- V-length not contrastive ('VV(VV)' notated for (long) contour tones)
- default assumption: TBU=σ

1.Sg formation in YM

- a low tone is added & creates a new contour on the final σ
- a low tone is added & overwrites the final base tone
- the segmental string /-yù/ surfaces

(Paster and Beam de Azcona, 2004a, 3-4)

→ contexts for allomorphs phonologically predictable:

A. a final low tone is **added** to H-final stems

- (1) nàmá 'soap' nàmáà 'my soap' L H → L HL
xínìí 'hat' xínìíí 'my hat' H LH → H LHL

B. a low tone **overwrites** M on final σ

- (2) la'la 'mucus' la'là 'my mucus' M M → M L
xá'nu 'cigarette' xá'nù 'my cigarette' H M → H L

→ if this would not create an LH L sequence

- (3) yùúti 'sand' yùútií 'my sand' LH M → LH ML
yòóso 'metate' yòósoò 'my metate' LH M → LH ML

→ or an L L sequence

- (4) títzi 'stomach' títzií 'my stomach' L M → L ML
kwà'à 'man's sister' kwà'àà 'my man's sister' L M → L ML

C. /-yù/ surfaces if the stem ends in an L-toned σ

- (5) sòkò 'shoulder' sòkòyù 'my shoulder' L L → L L yù
tutù 'paper' tutùyù 'my paper' M L → M L yù

Option ①: a 'polyrepresentational' analysis

- L and /yù/ are stored; the latter is realized to avoid homophony (cf. Paster and Beam de Azcona, 2004a, 3-4)

Option ②: a 'monorepresentational' analysis

- one underlying representation + phonology

Q1: Why is the low tone sometimes added to the base tones and overwrites the final tone in other contexts?

Q2: How can the realization of tone and segments alternate?

A monorepresentational analysis

1.Sg ↔ L yu /#_ → a floating L and segmental /yu/; the latter only realized as last resort to realize the L

① Non-realization of /yu/

- the /yu/ underlyingly lacks a σ node and since DEP-σ (6-a) dominates MAX-S (6-b), the morpheme is preferably not realized (=morphemes realized in all contexts have an underlying σ)
- the L must be realized due to undominated MAX-L (6-c)

- (6) a. DEP Assign a violation mark for every output σ without an input correspondent.
b. MAX Assign a violation mark for every input segment without an output correspondent.
c. MAX Assign a violation mark for every input L-tone without an output correspondent.

(7) Preference for not realizing /yu/ but realization of L ▶ (1)

	L	H	L	MAX	DEP	MAX
	σ	σ		L	σ	S
	na	ma	yu			
a.	na	ma		*!		**
b.	na	ma	yù		*!	
c.	na	ma				**

② Contour creation vs. overwriting

- new contour tones are penalized by *DIFFAL_σ (= *DAL; (9))
- overwriting for M-final bases since *DAL dominates MAX-M; not for H-final bases since MAX-H dominates *DAL

(9) *DAL Assign a violation mark for tones associated to the same σ through different association line types (±epenthetic).

(8) Floating L overwrites a base-final M ▶ (2)

	M	M	L	MAX	MAX	DEP	*DAL	MAX	MAX
	σ	σ		L	H	σ		M	S
	la'	la'	yu						
a.	la'	la'					*!		**
b.	la'		la'					*	**

(10) Floating L creates new contour with a base-final H ▶ (1)

	L	H	L	MAX	MAX	DEP	*DAL	MAX	MAX
	σ	σ		L	H	σ		M	S
	na	ma	yu						
a.	na	ma					*		**
b.	na		ma		*!				**

③ No adjacent L-initial syllables

- no overwriting if two adjacent σ's associated with an initial L would result; excluded by the positional, non-local OCP (11)

(11) *L_σ^Lσ Assign a violation mark for every pair of adjacent σ's that are associated with an initial L.

Other examples for non-local OCP effects: Plag (1998), Itô and Mester (1986), or Gallagher (2013).

(12) No overwriting for M-final bases ▶ (3),(4)

	L	H	M	L	MAX	*L _σ ^L σ	*DAL	MAX	MAX
	σ	σ			L			M	S
	yu	ti		yu					
a.	yu	ti					*		**
b.	yu		ti			*!		*	**

④ Realization of /yu/ as last resort

- association of L to bases ending in an L is excluded by *[TT]
- realization of /yu/ as last resort to satisfy MAX-L

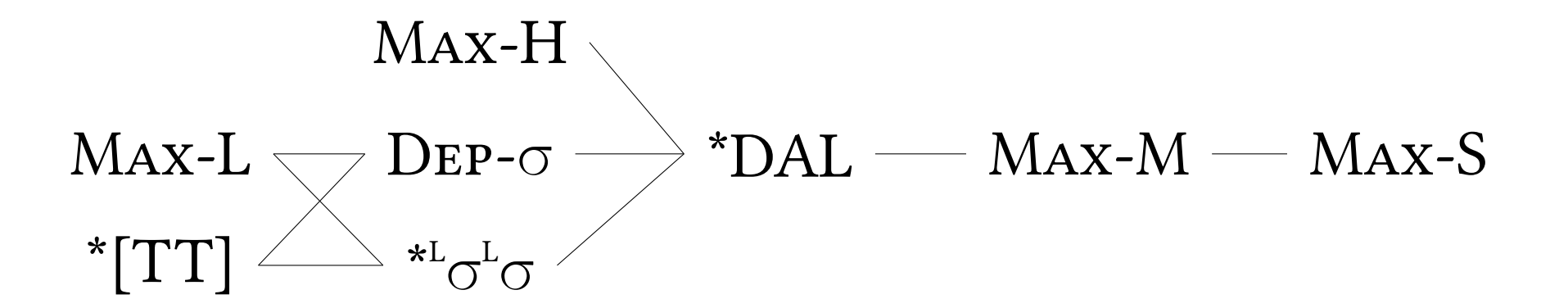
(13) *[TT] Assign a violation mark for every pair of adjacent identical tones associated to one TBU.

(14) No adjacent L's: realization of /-yù/ ▶ (5)

	M	L	L	*[TT]	MAX	DEP	*L _σ ^L σ	MAX
	σ	σ			L	σ		S
	tu	tu	yu					
a.	tu	tu		*!				**
b.	tu		tu		*!			**
c.	tu	tu	yù			*	*	

The main argument

(15) Summary: the complete ranking:



A lexical contrast is reduced to a difference in underlying prosodic structure

- (16-a) and (16-b) are possible input representations in OT (given Richness of the Base)

Independent arguments for contrastive syllabification in, for example, Elfner (2006), Vaux (2003), or Iosad (2013).

→ the analysis based on DEP-σ implies that this difference between underlying forms has a crucial surface effect

- (16) a. $\begin{matrix} \sigma \\ \triangle \\ yu \end{matrix}$ b. yu
- ▶ realized in all contexts ▶ realized as last resort

Extension: another example

- morphological V-lengthening in La Paz Aymara (17)
- whenever double-lengthening is expected, /-ja:/ surfaces: alternative repair to realize both 'lengthenings' (18)

(Briggs, 1976; Beesley, 2000; Hardman, 2001)

- (17) a. sara-: [sara:] go-FUT '(I) will go' b. apa-:tam [apa:tam] bring-FUT.3SG 'he will bring'
- (18) a. warmi-:-: [warmija:] *warmi-: 'I will be a woman' women-VB-1>3.FUT
b. quaqi-ni-:-:ta [quaqini:ta] *quaqini:ta 'You will have money' money-possessor-VB-1>3.FUT-FS

A monorepresentational analysis

- /-ja/ lacks a σ and is not realized if lengthening possible
- MAX-μ demands μ-realization: V-lengthening

→ realization of /-ja/ as last resort to realize all μ's

- (19) Allomorph 1: V-lengthening $\dots r a + j a \rightarrow \dots r a$
DEP-σ ≫ *V:, MAX-S
- Allomorph 2: /ja/-realization $\dots m i + j a + \mu \rightarrow \dots m i j a$
MAX-μ, *V: ≫ DEP-σ

Summary

- a monorepresentational account of allomorphy in YM where only an L-tone or segments are realized → **prosodically defective segments only realized as a last resort**
- prosodic defectivity is independently predicted in OT and can account for apparently lexical contrasts