

Class 4: Positional faithfulness

To do for next time

- Read Alderete, (and next, Hayes)

1. Overview

- Beckman (1997): Positional faithfulness in Shona vowel harmony
- Other privileged positions
- Comparison to positional licensing
- Some newish data: privileging of unexpected positions; positional faithfulness as a driver of underapplication

2. Shona vowel harmony analysis

Beckman (1997): height harmony in Shona is driven by constraints against features (spreading reduces the violations), with faithfulness to the initial syllable having special status.

3. Psycholinguistic evidence for the privilegedness of initial positions

Word onsets...

- are better cues for lexical retrieval than later parts of the word
- are what people in a “tip-of-the-tongue” state tend to recall best
- are where errors are most noticeable
- are where errors are less likely to be fixed in a shadowing task

4. Harmony driven by feature markedness

/burok/	*MID	*HIGH	*LOW	IDENT(hi)
<i>a</i> burok \ +hi -hi	*!	*		
<i>b</i> buruk \\/ +hi		*		*
<i>c</i> buruk \ +hi +hi		**!		*

5. Restricted distribution of mid vowels driven by IDENT- σ_1 (hi)

/CaCeC/	ID- σ_1 (hi)	ID(lo)	*MID	*HIGH	*LOW	IDENT(hi)
<i>a</i> C a C e C 			*!		*	
<i>b</i> C a C i C 				*	*	*
/CeCaC/	ID- σ_1 (hi)	ID(lo)	*MID	*HIGH	*LOW	IDENT(hi)
<i>a</i> C e C a C 			*		*	
<i>b</i> C i C a C 	*!			*	*	*

- Why are low vowels opaque to harmony, despite possibility of shared [-hi]?
- How does Kaun's *ROLO (*[-hi, +round]) account for the rounding effect on height harmony when the first vowel is [o]?

6. Positional licensing

*X unless /__Y: *MID unless linked to initial syllable

- Can we do a positional licensing analysis of Shona?

7. Other privileged positions—stressed syllables

Guarani

tũ'pã	'god'	tu'pa	'bed'
pĩ'rĩ	'to shiver'	pi'ri	'rush'
mã'ʔẽ	'to see'	^m ba'ʔe	'thing'
hũ'ʔũ	'to be bland'	hu'ʔu	'cough'
ã'kĩ	'to be tender'	a'ki	'to be wet'
põ'tĩ	'to be done for'	po'ti	'to be clean'

nõ-řõ-nũ ^l pã-ĩ ^l	‘I don’t beat you’
not I-you beat negation	
nõ-řõ-ĩẽ ^{ln} du-i	‘I don’t hear you’
not I-you hear negation	
"do-ro -hai ^l hu-i	‘I don’t love you’
not I-you love negation	
řõ- ^m bo -ywa ^l ta	‘I made you walk’
I-you causative walk	
řõ- mõ -põ ^l řã	‘I embellished you’
I-you causative nice	
řõ- mõ -xẽ ^{ln} du	‘I made you hear’
I-you causative hear	
ũ ^l mĩ-řa- ^l ywa	‘like those’
re- ^l xo-tã-řã ^l mõ	‘if you go’
ã-nẽ-řẽ ^{ln} du	‘I hear myself’
^m ba ^l ʔe ^m bia ^l ʔi	‘sadness’

- What's would be the positional faithfulness analysis here?
- Beckman argues against a positional licensing approach for Guaraní (*[nasal] unless associated to a stressed syllable or a [-continuant] segment). Can you see the problem for 'if you go' and 'sadness'?

8. Other privileged positions—onsets

Catalan

gos	‘dog (m.)’	gosə	‘dog (f.)’	gos pətɪt	‘little dog’	goz βlaw	‘blue dog’
gris	‘grey (m.)’	grizə	‘gray (f.)’	gris pətɪt	‘pale gray’	griz βləβeŋ	‘bluish gray’

- Give a positional faithfulness analysis.
- Beckman argues against a licensing account (*[voice] unless associated to a pre-sonorant onset obstruent). Can you see the problem for ‘blue dog’?

9. Other privileged positions—roots

- Zulu and Xhosa: permit clicks only in roots
- Cuzco Quechua: permit aspiration and ejectives only in roots

¹ We won't get into the nasality on this suffix. Beckman says it's unclear exactly when you can get rightward nasal harmony—maybe only on suffixes.

- Ibibio consonant clusters

roots

dáppá ‘dream (vb.)’
 dámmá ‘be mad’
 dɔ'kkɔ 'tell'
 bàkká ‘divide’
 tèmmé ‘explain’

negative verbs

í-dép-pé	‘he is not buying’	dép	‘buy’
í-bót-tó	‘he is not molding’	bót	‘mold’
í-jèk-ké	‘he is not shaking’	jèk	‘shake’
ń-nám-má	‘I am not performing’	nám	‘do/perform’
ń-kòṅ-ṅɔ'	‘I am not knocking’	kòṅ	‘knock’
ṅ-kàà-ýá	‘I am not going’	kă	‘go’
ń-séé-ýé	‘I am not looking’	sé	‘look’
ń-dóó-ýó	‘I am not’	dó	‘be (copula)’
...dáppá-ké	‘...not dreaming’	dáppá	‘dream’
...dókkó-ké	‘...not telling’	dókkó	‘tell’

10. Positional maximization

Beckman proposes that positional MAX is possible too.

There are a few ways you could imagine defining, say, MAX- σ_1 , but one of those ways results in “maximal packing of prominent constituents”:

MAX- σ_1 : every input segment has a correspondent in the root-initial syllable

Explains Ibibio ambisyllabicity (evidence: 1st V acts like it's in a closed syllable, C is lenited—see *k* vs. *ɣ* above)

MAX- $\acute{\sigma}$: every input segment has a correspondent in a stressed syllable

Explains ambisyllabicity of VCV in English when V_1 is stressed (evidence: nonaspiration, tapping)

11. What kinds of things does positional faithfulness explain?

- Positional neutralization in non-privileged positions (Catalan final devoicing)
- Resistance to processes by privileged positions (Guaraní nasal harmony)

- Triggering of processes by privileged positions (Shona nasal harmony)

12. Zoll (1998): Some things positional faithfulness can't explain

Positional faithfulness predicts that privileged positions should be faithful to their underlying specifications, whatever those are.

Positional licensing predicts that certain structures should require a privileged position, regardless of its underlying specifications.

- Can these predictions ever conflict?

Guugu Yimidhirr (data taken from Kager 1995)

Long Vs in first two syllables only:

waarigan	‘moon’
waada	‘crow’
guurumugu	‘meat hawk’
dawaar	‘star’
gambuugu	‘head’
damaarbina	‘magpie goose’
buduunbina	‘thunder’
buuraay	‘water’
muulumul	‘dove’
daaraaljan	‘kangaroo’
ziiraaɲguɾ	‘old man’

Lengthening suffixes:

/maɲal-nda/	ma.ɲa <u>al</u> .nda	‘clay’
/wulɲguɾ-nda/	wu.luɲ.guɾ.nda	‘lightning, flame-ERG’
	*wu.luɲ.gu <u>u</u> ɾ.nda	

- Can you see the problem for positional faithfulness?

(Zoll presents another case from Hamer that's a bit more complicated—there, she needs positional faithfulness (to roots) *and* positional licensing (place licensed by onsets).)

13. Faithfulness to unprivileged positions?

Limos Kalinga (Ferreirinho 1993)

Generally allows OCP(labial) violations

mam-baat	‘travelling-AF’
ma-baju	‘be able to pound’

-um- infixation:

ʔadani	‘near’
ʔ-um-adani	‘become near’
dakol	‘big’
d-um-akol	‘become big’
lamʔok	‘soft’
l-um-amʔok	‘become soft’

pija	‘good’
k-um-ija	‘become good’
bali	‘typhoon’
g-um-ali	‘to typhoon’

buuk	‘drunk’
g-um-uuk	‘become drunk’

bulbul	‘cook rice to make it soft’
g-um-ulbul	‘cook soft-AF’

bunut	‘husk’
mam-bunut	‘husk-AF’
g-um-unut	‘husk-AF-part.’

○ How can we analyze this??

14. Two underapplication cases

Recall from McCarthy & Prince (1995):

- If an alternation is generally present in a language, then PHONO >> CORR-IO.
- If {PHONO, CORR-IO} >> CORR-BR, you get transparent application.
- If {PHONO, CORR-BR} >> CORR-IO, you get overapplication...
- ...unless there is another constraint, PHONO2 (>>PHONO), that the overapplication candidate violates. Then you get underapplication.

Here are some cases of underapplication that don’t seem to fit that schema.

Tagalog nasal place

/ __ V	damak	sunod	suŋal
/ __ #	ʔagham	hipon	gaŋaŋ
/ __ ? (low-freq.)	kamʔaw	tinʔis	paŋʔal
/ __ h		ganhaw	tiŋhad
/ __ s	damsak	pansit	(just 1 token)
/ __ l	samlaŋ	banlaw	paŋlaw
/ __ nas			(just 2 tokens)
/ __ w		binwit	biŋwit
/ __ j	kamja	tanjaŋ	baŋjaw
/ __ p	dampoʔ		
/ __ b	damboŋ	(just 1 token)	
/ __ t		lantak	
/ __ d		handaʔ	
/ __ k		(just 1 token)	liŋkod
/ __ g			duŋgol

(There are also some alternations in which at least /ŋ/ assimilates in place to a following stop (or s).)

Possible analyses:

positional licensing *PLACE(nas/ __ stop) >> ID(place)-IO >> *PLACE(oral/ __ stop)
'positional' faithfulness ID(place/oral)-IO >> AGREE-CC(place) >> ID(place/nasal)-IO
positional faithfulness ID(place/ __ {non-stop,#})-IO >> *PLACE(nas) >> ID(place/ __ stop)-IO

But some pseudoreuplicated words behave a bit differently:

bamban	‘inner membrane of fruit’
bambaŋ	‘canal’
balimbini	‘tree sp.’
bumboŋ	‘cylindrical container’
bumbon ~ bunbon	‘dam to attract fish’
dandaŋ ~ daŋdaŋ	‘toasting’
binbim ~ bimbim	‘delayed’
dinidin	‘wall’
dalundon	‘grass cabin’
kamkam	‘usurpation’
damdam	‘feeling’

- How can we describe this optional underapplication?

/RED+daN/	IDENT (place)-BR	*PLACE (nas/ __ stop)	IDENT (place)-IO	*PLACE (oral/ __ stop)
⊗ <i>a</i> daNdaN		*!		
<i>b</i> dandaŋ	*!			
⦿ <i>c</i> dandan			*	

/RED+daN/	IDENT (place/nasal)-BR	IDENT (place/oral)-IO	AGREE-CC (place)	IDENT (place/nasal)-IO
⊗ <i>a</i> daNdaN			*!	
<i>b</i> dandaŋ	*!			
⦿ <i>c</i> dandan				*

/RED+daN/	IDENT (place/nasal)-BR	IDENT (place/ __ {non-stop,#})-IO	*PLACE(nas)	IDENT (place/ __ stop)-IO
⦿ <i>a</i> daNdaN			*	
<i>b</i> dandaŋ	*!			
<i>c</i> dandan		*!		

Although the non-reduplicated words don't demand a positional faithfulness account, it seems we need one to get underapplication.

This is a bit different from other cases of underapplication I've seen, because the overapplication candidate (*dandan*) is being blocked not by any PHONO constraint, but by a positional faithfulness constraint that happens to apply to the base's nasal (not because it's in the base, but because it's non-pre-stop).

(Does underapplication happen in morphologically reduplicated words in Tagalog? It's hard to say. The only place where it could arise is in two-syllable reduplication with a disyllabic root (mag-dunuŋ-dunuŋ-an), but, as many of you suggested in your last assignment, the reduplicant here might be a prosodic word on its own, so there might be a word boundary between R and B that blocks assimilation.)

Tagalog diphthong coalescence

Nonfinal diphthongs *aj* and *aw* optionally become a mid vowel (they can also become a high vowel):²

ʔajwan ~ ʔewan	‘I don’t know’
kaʔuntiʔ ~ kawntiʔ ~ kontiʔ	‘a little’
bajawaŋ ~ bajwaŋ ~ bewaŋ	‘waist’
bahaw *baho	‘leftover cooked rice’
baŋkaj *baŋke	‘corpse’

Mid vowels are fine word-finally though:

abo	‘ash’
babaʔe	‘woman’

Possible analyses:

<i>positional markedness</i>	*AY/nonfinal >> UNIFORMITY-IO >> *AY
<i>positional faithfulness</i>	UNI/final-IO >> *AY >> UNI-IO

Jie Zhang did a study of environments for the optional coalescence (looking at syllable duration), and although this wasn’t his focus, one thing he did find was that it doesn’t happen in pseudoreuplicated words:

bajbaj *bebaj

- How can we rule out *bebaj?

/RED+baj/	UNI-BR	*AY/nonfinal	UNI-IO	*AY
⊖ <i>a</i> bajbaj		*!		**
<i>b</i> bebaj	*!			*
⊙* <i>c</i> bebe			*	

/RED+baj/	UNI-BR	UNI/final-IO	*AY	UNI-IO
☞ <i>a</i> bajbaj			**	
<i>b</i> bebaj	*!		*	
<i>c</i> bebe		*!		*

² I’m ignoring vowel length here because it’s a knotty question in Tagalog...

- There's one other possibility that I didn't tell you about. Normally, mid vowels aren't allowed in nonfinal syllables (so we have some opacity; I won't get into that part here), so can we combine positional markedness with TETU?

Next time

- Antifaithfulness