

### Class 9: More issues in process application: multisite optionality

#### To do

- Project: Turn in **bibliographic exercise** by end of this week. **Meet** with me by the end of next week about a topic.
- **Homework** on last week's material (Chilean Spanish vowels in OT) due tomorrow
- **Homework** on this week's material will be posted tonight; due next Friday
- **Reading questions** on Anderson excerpt; **online quiz** on CCLE that goes with them (I'll put it up tonight)

#### 1. Warm-up: Correspondence quiz

	saif	MAX-C	UNIFORMITY	MAX-V	ONSET
a.	sa.if				
b.	sa.i				
c.	sef				

For all questions, your plicker choices are: A: *a*, B: *b*, C: *c*, or D: you didn't give us enough information to answer

- Which candidate violates MAX-C?
- Which candidate violates UNIFORMITY?
- Which candidate violates MAX-V?
- If we decided that any of the questions should be answered D, now fix the tableau so that there is enough information to answer.

#### *for the new tableau*

- Which candidate violates MAX-C?
- Which candidate violates UNIFORMITY?
- Which candidate violates MAX-V?

**Overview:** What kinds of variation do we expect when there are multiple places/ways for an *optional* process to apply to a single form?

Cases taken from Kaplan 2011, Riggle & Wilson 2005, Vaux 2008—good sources for term-paper topics. See those papers for various approaches to multi-site optionality.

## 2. Warao: global optionality

Language isolate of Venezuela, Guyana, and Suriname; 28,100 speakers [Lewis 2009]. From Osborn 1966.

- Little raw data, but Osborn is very definite about the generalization:
 

“/p/ has allophones [p b]. The voiced allophone [b] is heard more frequently than the voiceless [p] in most words. In every word, except for a few words noted below, alternation between [b] and [p] is presumably possible, since many alternations of this order have been heard. Thus in /paro+parera/ *weak*, both the initial and medial phoneme /p/ is heard as [b] generally, and as [p] infrequently. In words like the one cited, with two or more occurrences of /p/, **the allophones are consistently [b] or [p] for each utterance of the word.** If the first occurrence of /p/ in the word is [b], the following occurrence(s) will be [b]. If the first occurrence is [p], the following occurrence(s) will be [p]. The following are examples of words with two occurrences of /p/: *poto+poto soft*, *apaupute he will put them*, *kapa+kapa kind of banana.*” (p. 109)
- I.e., [paro-parera] ~ [baro-barera], but not \*[paro-barera] or \*[baro-parera].
- Also, for a non-reduplicative case, [hapisapa] ~ [habisaba] ‘other side’
- How might we try to capture this variation in OT? SPE?

As discussed by Riggle & Wilson, Kaplan, it would be nice to have more than two non-reduplicated words...

### 3. A better global case, from Kaplan 2012

- Eastern Andalusian metaphony (vowel harmony).
- Word-final /s/ laxifies preceding V, then usually deletes

(on the face of it, that looks like counterbleeding, but Kaplan cites Jiménez & Lloret's analysis as reassociation of [spread glottis] from /s/ to V.)

spelling	pronunciation	
(assume reflects underlying /s/)		
<i>mes</i>	mé	'month'
<i>tos</i>	tó	'cough'
<i>mis</i>	mí	'my (pl.)'
<i>tus</i>	tú	'your (pl.)'

- Laxness spreads to preceding stressed V, if non-high:
 

<i>lejos</i>	lého	'far'
<i>tesis</i>	tési	'thesis'
- If other Vs intervene, they participate too, all-or-none:
 

<i>treboles</i>	tréβole ~ tréβole	'clovers'
<i>cómetelos</i>	kómetelo ~ kómetelo	'eat them (for you)!'
- Similarly, non-high Vs before the stress can laxify, all-or-none:
 

<i>cotillones</i>	kotizóne ~ kotizóne	'cotillions'
<i>monederos</i>	moneðéro ~ moneðéro	'purses'
- Finally, the pretonic Vs lax only if the post-tonic ones do:
 

<i>recógelos</i>	rekóhelo ~ rekóhelo ~ rekóhelo	'pick them'
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#### 4. Local optionality—also hard to find good cases (besides French; see below)

- Vaux reports, for English *marketability*:  
 [maɪkət<sup>h</sup>əbɪlət<sup>h</sup>i] ~ [maɪkərəbɪləri] ~ [maɪkət<sup>h</sup>əbɪləri] ~ [maɪkərəbɪlət<sup>h</sup>i]
- Can any of our ideas for SPE+variation get this? OT+variation ideas?

#### 5. Vata: iterative optionality

*Ethnologue* classifies as dialect of Lakota Dida, a Niger-Congo language of Côte d'Ivoire with 98,8000 speakers. Data taken from Kaplan 2009; originally from (Kaye 1982).

- The language has ATR harmony: [+ATR]: [i,u,e,o,ʌ]    [−ATR]: [ɪ, ɔ, ε, ɔ, a]
- [+ATR] optionally spreads to the final syllable of a preceding word:  

/ɔ̄ nɪ sáká pì/	→	ɔ̄ nɪ sáká pì	~	ɔ̄ nɪ sáká pì	‘he didn’t cook rice’
- - - +	→	- - - +	~	- - -+ +	
- If all the words are monosyllabic, this is potentially self-feeding. There are various options, all possible...  

/ɔ̄ ká zā pī/	→	ɔ̄ ká zā pī	~	ɔ̄ ká zā pī	~	ɔ̄ ká zā pī	~	ɔ̄ ká zā pī	‘he will cook food’
- - - +	→	- - - +	~	- - - + +	~	- + + +	~	+ + + +	
- Can we get this one?

## 6. Hypercorrection in Dominican Spanish: unique-target optionality

(Vaux calls this “Basic Optionality”)

Data from Bradley 2006. See there for original data sources, esp. Núñez-Cedeño 1994, which I didn't get a chance to consult. If you fancy this as a term-paper topic, check out Bullock & Toribio 2010.

- /s/ typically absent in a syllable coda:

<i>Popular Dominican Spanish</i>	<i>Conservative Spanish</i>	
se.co	se.co	‘dry’
ca.so	ca.so	‘case’
e.tú.pi.do	es.tú.pi.do	‘stupid’
do	dos	‘two’ (p. 3)

- Hypercorrection can insert a coda [s] (in the “hablar fisno” speech style):<sup>1</sup>

<i>Dominican fisno</i>	<i>Conservative</i>	
in.vis.tado	in.vi.ta.do	‘guest’
co.mos	co.mo	‘like’
e.tús.pi.do	es.tú.pi.do	‘stupid’
de.des	des.de	‘since’ (p. 4)

- And there can be variation of where the [s] is inserted:

<i>Dominican fisno</i>	<i>Conservative</i>
as.bo.ga.do ~ a.bos.ga.do ~ a.bo.gasdo ~ a.bo.ga.dos	a.bo.ga.do ‘lawyer’ (p. 4)

- But, apparently there can only be one inserted s:<sup>2</sup> \*as.bo.ga.dos, etc.
- This claim is not really documented or discussed in the literature. Bradley cites personal communication with Núñez-Cedeño, the main describer of the phenomenon.
- Any ideas, for each theory?

<sup>1</sup> though not before an otherwise intervocalic tap or trill, which would be phonotactically illegal, and not if it would create a closed penult in a word with antepenultimate stress.

<sup>2</sup> See p. 24 for discussion of an apparent counterexample given by Harris.

## 7. Optionality and self-bleeding: French schwa-deletion

Indo-European language from France and surroundings with 67.8 million speakers worldwide.

- There's a big literature on this; Dell 1970 is a good place to start, and next I'd recommend Kaplan 2016 and Bayles, Kaplan & Kaplan 2016.
- /ə/ optionally deletes, except when it would create a bad consonant cluster.

/suvəniR/	→	[suvəniR] ~ [suvniR]	'to remember'
/pasəRa/	→	[pasəRa] ~ [pasRa]	'will pass'
/parvəniR/	→	[parvəniR] *[parvniR]	'to reach' ([RV] bad coda, [vR] bad onset)
/sufləRa/	→	[sufləRa] *[sufləRa]	'will blow' ([VflRV] unsyllabifiable)
/ãri dəve partir/	→	[ãri dəve partir] ~ [ãri dve partir]	'Henri had to go'
/ʒak dəve partir/	→	[ʒak dəve partir] *[ʒak dve partir]	'Jacques had to go' (*[kdv])

- What does basic SPE predict for this form (pretend the rule is obligatory): /ty dəvəne/ 'you were becoming'
- Actual result is (supposedly) [ty dəvəne] ~ [ty dvəne]<sup>3</sup> ~ [ty dəvne], but \*[ty dvne]—discuss.

## 8. If time—Anderson 1974's solution

- Find all segments eligible for the rule and circle them.
- For each circled segment, underline the smallest environment that lets the segment meet the rule's structural description.
- If the rule is optional, you may uncircle some of the eligible segments and de-underline their environments.
- If any circled segment is contained in some other circled segment's underlined environment, uncircle (and de-underline the environments of) as few segments as possible to get rid of these overlaps.
- Now apply the rule simultaneously to the remaining circled segments.

(Of course, circling and underlining themselves have no theoretical status—this is just a convenient way to say “identify targets and environments”)

<sup>3</sup> Some speakers have said they don't like this one...

- What does Anderson's proposal predict for French /ty vudre kə sə kə lə bədo/<sup>4</sup> 'you would like that what the beadle...'?
  
- Does Anderson's proposal help with the non-optional cases we saw Klamath? Kikuyu? Tianjin?

**Next time:** Process interaction—beyond (counter){f,bl}eeding

### References

- Bayles, Andrew, Aaron Kaplan & Abby Kaplan. 2016. Inter- and intra-speaker variation in French schwa. *Glossa: a journal of general linguistics* 1(1). 19. doi:10.5334/gjgl.54.
- Bradley, Travis. 2006. Spanish rhotics and Dominican hypercorrect /s/. *Probus* 18(1). 1–33.
- Bullock, Barbara E & Almeida Jacqueline Toribio. 2010. Correcting the record on Dominican [s]-hypercorrection. *Romance Linguistics 2009: selected papers from the 39th Linguistic Symposium on Romance Languages (LSRL)*, 15–24. John Benjamins Publishing Company.
- Dell, François. 1970. Les règles phonologiques tardives et la morphologie dérivationnelle du français. MIT.
- Kaplan, Aaron. 2016. Local optionality with partial orders. *Phonology* 33(2). 285–324. doi:10.1017/S0952675716000130.
- Kaplan, Aaron F. 2011. Variation Through Markedness Suppression. *Phonology* 28(3). 331–370. doi:10.1017/S0952675711000200.
- Kaplan, Aaron F. 2012. Andalusian vowel harmony and theories of variation. Manuscript. University of Utah, ms.
- Kaye, Jonathan. 1982. Harmony processes in Vata. In Harry Van der Hulst & Norval Smith (eds.), *The structure of phonological representations*, vol. II, 385–452. Foris.
- Lewis, M. Paul (ed.). 2009. *Ethnologue: languages of the world*. 16th ed. Dallas, TX: SIL International.
- Núñez-Cedeño, Rafael. 1994. The alterability of Spanish geminates and its effects on the Uniform Applicability Condition. *Probus* 6. 23–41.
- Osborn, Henry A. 1966. Warao I: Phonology and Morphophonemics. *International Journal of American Linguistics* 32(2). 108–123.
- Riggle, Jason & Colin Wilson. 2005. Local optionality. In Leah Bateman & Cherlon Ussery (eds.), *NELS* 35.
- Vaux, Bert. 2008. Why the phonological component must be serial and rule-based. In Bert Vaux & Andrew Nevins (eds.), *Rules, constraints, and phonological phenomena*. Oxford University Press.

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<sup>4</sup> I got this from an online appendix to David Odden's *Introducing Phonology* (2005: Cambridge UP): [www.ling.ohio-state.edu/~odden/IntroducingPhonology/Theory%20Discussion.html](http://www.ling.ohio-state.edu/~odden/IntroducingPhonology/Theory%20Discussion.html)