

## Class 9: Optimality Theory, part II

**Overview:** Last time we talked in detail about how the theory works. This time and next, the focus will be on practicing using it.

### 1. Warm-ups

? Which candidate wins? Add in the shading and exclamation marks too

	CONSTR1	CONSTR2	CONSTR3	CONSTR4
<i>a</i>	*	*		
<i>b</i>	*		*	
<i>c</i>	*			*

	CONSTR1	CONSTR2	CONSTR3
<i>a</i>	*	**	
<i>b</i>		**	
<i>c</i>		***	

	CONSTR1	CONSTR2	CONSTR3	CONSTR4
<i>a</i>	*	*	*	*

	CONSTR1	CONSTR2	CONSTR3
<i>a</i>			**
<i>b</i>			**
<i>c</i>			*

### 2. How do I know which candidates and constraints to include in my tableaux?

This procedure works reasonably well:

- Start with the winning candidate and the fully faithful candidate.
- If the winning candidate  $\neq$  the fully faithful candidate...
  - Add the markedness constraint(s) that rule out the fully faithful candidate.
  - Add the faithfulness constraints that the winning candidate violates.
  - Think of other ways to satisfy the markedness constraints that rule out the fully faithful candidate. Add those candidates, and the faithfulness and markedness constraints that rule them out. How far to take this step is a matter of judgment.

? Let's try it together for /atka/  $\rightarrow$  [atəka]

/ atka /	

? Now you do it for /bid/ → [bit]

/bid/	

? One of the candidates below is unnecessary in arguing for the constraint ranking. Why?

/at+ka/	*CC	DEP-V
<i>a</i> [atəka]		*
<i>b</i> [atka]	*!	
<i>c</i> [atəkəa]		**!

- A candidate is **harmonically bounded** if it could not win under any constraint ranking.

? Here's a subtler case of harmonic bounding—explain:

/at+kəp+so/	*CC	DEP-V
<i>a</i> atkəpso	*!*	
<i>b</i> atkəpəso	*!	*
<i>c</i> atəkəpəso		**

### 3. Exercise: Metaphony (just the two easier cases—we might do hard ones later)

- Northern Pugliese/Foggiano
  - Romance variety spoken in town of Foggia, in Puglia, Italy
  - Either closely related to Italian or a variety of Italian
  - However, the data below are pretty different from what I see in, e.g., [ildialettodifoggia.altervista.org/dizionario-fonetico.html](http://ildialettodifoggia.altervista.org/dizionario-fonetico.html), or the number of vowels the image below suggests exist, so I'm not sure exactly what variety this is...



- Data are originally from Valente 1975 if you want to track this back to source
- Veneto, as spoken in Vincenza, Padova, Rodigo (all near-ish to Venice)
  - Romance language from Italy
  - Also related to Italian but more distantly
  - Data originally from Renzi & Salvi 1985; Rohlfs 1966



2

<sup>1</sup> [www.statoquotidiano.it/16/05/2013/anna-marino-romano-donne-e-idee-che-costruiscono-foggia/141054/](http://www.statoquotidiano.it/16/05/2013/anna-marino-romano-donne-e-idee-che-costruiscono-foggia/141054/)

<sup>2</sup> [commons.wikimedia.org/wiki/File:Targa\\_dialecto\\_veneto.JPG](https://commons.wikimedia.org/wiki/File:Targa_dialecto_veneto.JPG)



- (Walker 2005) discusses cases in which suffix vowels spread their [+high] feature to the stem's stressed vowel.
- ? Develop OT accounts of these two “metaphony” systems (they can have different rankings, since they're different languages). Assume each example is representative of the vowel it illustrates.

*Foggiano/Pugliese*. Vowel inventory: [ i, e, ε, a, u, o, ɔ ]

pét-e	‘foot’	pít-i	‘feet’
móʃf-a	‘soft (fem.)’	múʃf-u	‘soft (masc.)’
kjén-a	‘full (fem.)’	kjín-u	‘full (masc.)’
gróss-a	‘big (fem.)’	grúss-u	‘big (masc.)’

*no data given for other vowels, but assume hypothetical...*

mís-e	mís-i
mús-e	mús-i
más-e	mas-i

*Veneto* Same vowel inventory.

véd-o	‘I see’	te víd-i	‘you see’
kór-o	‘I run’	te kúr-i	‘you run’
tos-o	‘boy’	tus-i	‘boys’
prét-e	‘priest’	prét-i	‘priests’
bél-o	‘beautiful (masc. sg.)’	bél-i	‘beautiful (masc. pl.)’
mód-o	‘way’	mód-i	‘ways’

*no data given for other vowels, but assume same as for Foggiano/Pugliese*

- ? When you're done, we'll talk about triggering and blocking.

*Foggiano*

/kjen+u/				
kjenu				
→ kjinu				

/pet+i/				
peti				
→ piti				
peti				
piti				

*Veneto*

/ved+i/				
vedi				
→ vidi				

/pret+i/				
→ preti				
priti				
preti				
priti				

**4. Exercise: our bleeding example from English**

- ? Translate our previous rule analysis into OT—do one example of each allomorph (= 3 tableaux). Be sure to include the counterbleeding candidate (\*[glæs-is])

(reminder: /-z/,  $\emptyset \rightarrow i$  / [+strid]\_\_[+strid], [-son]  $\rightarrow$  [-voice] / [-voice] \_\_)

p <sup>h</sup> i-z	‘peas’	dag-z	‘dogs’	mit-s	‘mitts’	glæs-iz	‘glasses’
t <sup>h</sup> ou-z	‘toes’	læb-z	‘labs’	blook-s	‘blokes’	fiz-iz	‘fizzes’
dal-z	‘dolls’	salid-z	‘solids’	k <sup>h</sup> af-s	‘coughs’	bɹæntʃ-iz	‘branches’
p <sup>h</sup> æn-z	‘pans’	weɪv-z	‘waves’			bædʒ-iz	‘badges’
		saið-z	‘scythes’			wɪʃ-iz	‘wishes’

## 5. Very short feeding example: Catalan

- Indo-European language from Spain, France, Andorra with 11.5 million speakers
- Some English words of Catalan origin: *paella*, maybe *apricot*



Antonio Gaudí, architect



Montserrat Caballé, opera singer



Susana Martínez Heredia,  
economist, Romani activist

From (Mascaró 1976):

/son/ → [son] 'they are'

/pok-s/ 'few'

[som poks] 'they are few'

/bint/ → [bin]<sup>3</sup> 'twenty'

/pan-s/ 'breads'

[bim pans] 'twenty breads'



? First, develop an analysis with rules.

? Give an OT analysis.

? Could the counterfeeding candidate \*[bin pans] win under any ranking of these constraints?

<sup>3</sup> How do we know the underlying form has a final /t/? Because it shows up when it can be syllabified as an onset, as in /bint+i+un/ → bin.ti.u 'twenty-one'.

## 6. *If we have time: counterfeeding that we can capture*

**Lena Asturian:** another Romance metaphony case from (Walker 2005)

- Asturian is a Romance language from Spain, around 100,000 native speakers
  - Lena is a municipality in Asturias



*Ramón Menéndez Pidal, philologist  
person most nominated for Nobel Prize*



*Santa Cristina de Lena church, Lena*

- Walker's data are from Hualde 1989, and they seem to be from Neira Martínez 1955

vowel inventory: {i, e, a, o, u}

fí-a	'daughter'	fí-u	'son'
nén-a	'child (fem.)'	nín-u	'child (masc.)'
kúb-os	'pails (masc. pl.)'	kub-u	'pail (masc.)'
tsób-a	'wolf (fem.)'	tsúb-u	'wolf (masc.)'
gát-a	'cat (fem.)'	gét-u	'cat (masc.)'

- ? Develop a rule account
- ? What's the problem with translating this into OT (hint: [gét-u] is the problematic word)?
- ? Any ideas for playing with our faithfulness constraints to get this?



**7. Opacity [more on this in Week 7 or so!]**

- We now have our first empirical difference between SPE and OT: SPE straightforwardly predicts counterfeeding and counterbleeding, and OT doesn't.
- In Week 8-9 we'll see a version of OT that does better with opacity (Kiparsky's Stratal OT).

**8. Wrap-up**

- Next week we'll cover correspondence theory, and do more practice
- We'll also be ready to start talking about the squib
  - You don't have to do anything about it now, just reminding you it's coming
- We can also discuss any questions you have about the assignment, which I've already posted
- Assignment (Pohnpeian) is due a week from tomorrow
- No reading for Monday. You can get a head start on the next ones if you want.

**References**

- Hualde, Jose Ignacio. 1989. Autosegmental and metrical spreading in the vowel-harmony systems of northwestern Spain. *De Gruyter Mouton* 27(5). 773–806.  
<https://doi.org/10.1515/ling.1989.27.5.773>.
- Mascaró, Joan. 1976. *Catalan Phonology and the Phonological Cycle*. MIT.
- Neira Martínez, Jesús. 1955. *El Habla de Lena*. [With Plates, and a Map.].
- Renzi, Lorenzo & Giampaolo Salvi. 1985. *Nuova introduzione alla filologia romanza*. Il Mulino.
- Rohlf, Gerhard. 1966. *Grammatica storica della lingua italiana e dei suoi dialetti: fonetica*. Einaudi.
- Valente, Vincenzo. 1975. *Puglia. Profilo dei dialetti italiani 15*. Pisa: Pacini.
- Walker, Rachel. 2005. Weak Triggers in Vowel Harmony. *Natural Language & Linguistic Theory* 23(4). 917–989.