

• Let's discuss the **Polish** analysis. We want a set of rules that account for the voicing alternation and the u/o alternation. (And we won't worry about any other properties of the data.)

Q: What are the morphemes?

Q: What are the rules?

Q: How are they ordered?

	sg.	pl.	Gloss
a)	klup	klubi	'club'
b)	trup	trupi	'corpse'
c)	dom	domi	'house'
d)	snop	snopi	'sheaf'
e)	żwup	żwobi	'crib'
f)	trut	trudi	'labor'
g)	dzvon	dzvoni	'bell'
h)	kot	koti	'cat'
h)	lut	lodi	'ice'
i)	grus	gruzi	'rubble'
j)	nos	nosi	'nose'
k)	vus	vozi	'cart'
l)	koš	koše	'basket'
m)	nuš	nože	'knife'
n)	wuk	wugi	'lye'
o)	wuk	wuki	'bow'
p)	sok	soki	'juice'
q)	ruk	rogi	'horn'
r)	bur	bori	'forest'
s)	vuw	vowi	'ox'
t)	sul	sol	'salt'
u)	buj	boji	'fight'
v)	šum	šumi	'noise'
w)	žur	žuri	'soup'

	1 sg.	imper sg.	Gloss
a)	rob'e	rup	'do'
b)	kop'e	kop	'shuck corn'
c)	vodze	vuc'	'lead'
d)	psoce	psoc'	'frolic'
e)	otvože	otvuš	'open'
f)	stoje	stuj	'stand'
g)	ogole	ogul	'shave'
h)	xron'e	xron'	'protect'
i)	zwov'e	zwuf	'catch'

Guinaag Kalinga is spoken in the Philippines. This data is from Geiser (1970). Assuming there are lots of forms like (a) in which the first stem vowel is unstressed, what rules and orderings allow you to derive (b)?

a)	dábo	(hypothetical)	dinábo	(hypothetical)
b)	dopá	‘fathom’	dimpána	‘he measured by fathom’
c)	gobá	‘firing(pots)’	gimbána	‘she fired’
d)	ʔomós	‘bath’	ʔimmósna	‘she bathed’
e)	botáʔ	‘broken piece’	bintáʔna	‘she broke’
f)	ʔodáw	‘requesting’	ʔindáwna	‘he requested’
g)	bosát	‘sudden break’	binsátna	‘he snapped’
h)	ponú	‘filling’	pinnúna	‘she filled’
i)	toʔóp	‘satisfaction’	tinʔópna	‘he satisfied’
j)	sogób	‘burning’	siŋgóbna	‘he burned’
k)	doŋól	‘report’	diŋgólna	‘he heard’
l)	ʔolót	‘tightening’	ʔillótna	‘he made tight’
m)	ʔowá	‘doing, making’	ʔiŋwána	‘he made did’

Q: What are the underlying forms of the morphemes here?

Q: What kind of rule ordering (feeding, bleeding, etc.) is needed here?

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- Give an example of a feeding rule interaction:
 - Give an example of a counter-feeding interaction:
 - Give an example of a bleeding rule interaction:
 - Give an example of a counter-bleeding interaction:

Q: Two of these interactions are referred to as *opaque*, which ones?

Multiple Application of Rules

• SPE p. 344: “To apply a rule, the entire string is first scanned for segments that satisfy the environmental constraints of the rule. After all such segments have been identified in the string, the changes required by the rule are applied simultaneously.”

Q: What kind of application is this and how does it relate to opacity?

Consider the following data from **Woleaian**:

a)	/mata/	mate	‘eye’
b)	/mata+i/	metai	‘my eyes’
d)	/mata+mami/	matemami	‘our (ex) eyes’
e)	/yafar/	yefar	‘shoulder’
f)	/yafar+ai/	yaferai	‘our (in) shoulders’
g)	/parasa/	erase	‘switch’
h)	/parasa+rasa/	peraserase	‘splash’ (intrans.)
i)	/marama/	merame	‘moon’
j)	/marama+li/	maremali	‘moon of’

Q: How should we formulate a final-v raising rule?

Q: How about a dissimilation rule for vowels before glides?

Q: What kind of rule application do we need (for marama+li)?