

Class 7: Output-output correspondence

To do for next time

- Read Crosswhite
 - Email me your top choices for readings to present in class
- (I'll give you your next assignment Wednesday)

1. Review of cyclicity in rule-based lexical phonology: Palestinian Arabic

Verbs without objects:

<i>subject</i>	<i>'study'</i>	<i>'understand'</i>
2sg. masc.	da.rás-t	fhím-t
2sg. fem.	da.rás.-ti	fhím.-ti
3sg. masc.	dá.ras	fi.him
3sg. fem.	dá.ra.s-at	fi.h.m-at
1pl.	da.rás.-na	fhím.-na
2pl.	da.rás.-tu	fhím.-tu
3pl.	dá.ra.s-u	fi.h.m-u

- Give rules for stress in this language, based on the 'study' paradigm.
- Give a rule for the V~Ø alternations.
- Determine the ordering of the two rules.

Verbs with objects:

<i>object</i>	<i>'he understood X'</i>	<i>'she understood X'</i>	<i>'You (masc.) understood X'</i>
1sg.	fi.hím.-ni	fi.h.m-át.-ni	fhím-t.-ni
2sg. masc.	fi.h.m-ak	fi.h.m-a.t-ak	fhím-.t-ak
2sg. fem.	fi.h.m-ik	fi.h.m-a.t-ik	fhím-.t-ik
3sg. masc.	fi.h.m-u	fi.h.m-a.t-u	fhím-.t-u
3sg. fem.	fi.hím.-ha	fi.h.m-át.-ha	fhím-t.-ha
1pl.	fi.hím.-na	fi.h.m-át.-na	fhím-t.-na
2pl.	fi.hím.-kum	fi.h.m-át.-kum	fhím-t.-kum
3pl.	fi.hím.-hum	fi.h.m-át.-hum	fhím-t.-hum

- What is the base for each of the three columns?
- Why are there some [i]s here that don't follow the V~Ø alternations from above? (explain *fi.hím-ni*)
- Explain the stress in *fi.hmatak*.

Moral: because the lexical phonological rules apply after each Word-Formation Rule, things that happened at an earlier stage in the morphological derivation can carry over to later stages.


Can we deal with this kind of thing in OT?

2. Vowel lowering in Saipanese Chamorro (Crosswhite 1999)

Vowel lowering in main-stressed, closed syllables (where the V must be short)

'met.gut	'strong'	'pod.duŋ	'fall'
ma.'neŋ.ŋiŋ	'cold'	'tsoʔ.g ^w i	'do'
'pi:.saw	'fishing line'	'u:.tsan	'rain'
im.'pat.tsu	'bored'	'mu:.mu	'fight'
dis.'pas.yu	'slow'	gub.'yet.nu	'governor'
'la:.pis	'pencil'	la.'pes.su	'my pencil'
hu.'gan.du	'play'	hu.gan.'don.ŋa	'his playing'
ma.'læ:.guʔ	'wanting'	ma.læ.'goʔ.mu	'your wanting'

Foreshadowing some of Crosswhite's later work on vowel reduction, she proposes a Kenstowiczian analysis (in Kenstowicz's 1994 cases, stress was attracted to sonorous vowels; here vowels become more sonorous when stressed):

/mitgut/ or /metgut/	IDENT(low)	*TRIMORAIC	*PEAK _{Wd} /i,u	PERIPHERAL	*PEAK _{Wd} /e,o	*PEAK _{Wd} /a,æ	*PEAK _{Wd} /V:
 'met.gut				*	*		
'mit.gut			*!				
'mi:t.gut		*!					*
'mæt.gut	*!					*	

In non-main-stress syllables, PERIPHERAL rules out mid vowels.

3. Secondary-stressed vowels

Lowering is optional in 'rhythmic' secondary stress (initial secondary stress occurs if there would otherwise be an initial lapse of 2 syllables):

tin.'ta:.guʔ	'messenger'	tin.ta'.goʔ.ta	or	ten.ta'.goʔ.ta	'our (incl.) m.'
mun.'doŋ.gu	'cow stomach'	mun.doŋ'.gon.ŋa	or	mon.doŋ'.gon.ŋa	'his cow stomach'

Crosswhite proposes that *PEAK_{Fv}/i,u is ranked variably with PERIPHERAL.

But there is also derived (cyclic) secondary stress, and there the vowel can't be optionally high, contrary to what the analysis so far predicts:

'et.ti.gu	'short'	*it.ti'.gon.ŋa	et.ti'.gon.ŋa	'shorter'
i.'neŋ.ŋu.luʔ	'peeping'	*i,niŋ.ŋu.'loʔ.hu	i,neŋ.ŋu.'loʔ.hu	'my peeping'
'ot.ti.mu	'end'	*ut.ti'.mon.ŋa	ot.ti'.mon.ŋa	'his end'

4. O-O Correspondence

Crosswhite proposes...

HEAD-IDENT-BA(high): a segment in an affixed form must match in [high] to its correspondent segment in the base, if that base segment is in the prosodic-word head.

- Why is it [i,nɛŋɲu'loʔhu], not *[i,nɛŋɲu'luʔhu]?
- What determines the placement of the secondary stress itself?

5. Total destressing

If there would be a stress clash, there's no derived secondary stress, and lowering is optional:

'kwen.tus	'to speak'	kwin.'tu.si	or	kwen.'tu.si	'to speak to'
'lok.luk	'to boil'	luk.'lok.ɲa	or	lok.'lok.ɲa	'its boiling'
'sen.sin	'flesh'	sin.'sen.ɲa	or	sen.'sen.ɲa	'his flesh'

- Is this what the analysis so far predicts?

To deal with this, Crosswhite introduces, in addition to PERIPHERAL, a constraint *MARGIN/e,o that is variably ranked with HEAD-IDENT-BA(high).

6. Degemination

Degemination outside of stress-syllable codas is optionally blocked when the geminate corresponds to one in the base.

/tommu/	SWP	HD-WT-IDENT(C)	HD-WT-IDENT(V)	*GEMINATE
☞ 'tom.mu				*
'to:.mu			*!	
'to.mu	*!			

/bunnita/	SWP	HD-WT-IDENT(C)	HD-WT-IDENT(V)	*GEMINATE
☞ bu.'ni:.ta			*	
bun.'ni:.ta			*	*!
bu.'ni.ta	*!			

/tommu-ɲa/	SWP	HD-WT-IDENT(C)	HD-WT-IDENT(V)	*GEMINATE	GEMINATE-BA
☞ tum.'moɲ.ɲa		*		**(!)	
☞ tu.'moɲ.ɲa		*		*	*(!)

7. Gemination harmony

The onset of an immediately post-stress suffix geminates *if* the base has a stressed, closed syllable!

<i>base</i>		<i>suffixed form</i>	
'mam.puʔ.lu	'place'	ˌmam.puʔ.ˈloŋ.ja	'its place'
'daŋ.ku.lu	'big'	ˌdaŋ.ku.ˈloŋ.ja	'bigger'
'leb.blu	'book'	leb.ˈbloŋ.ja	'his book'
		leb.ˈblok.ku	'my book'
'tom.mu	'knee'	tom.ˈmoŋ.ja	'his knee'
		tom.ˈmom.mu	'your (sg.) knee'
'fi:.nu	'smooth'	fi.ˈnu:.ja	'smoother'
bu.ˈni:.ta	'pretty'	ˌbu.ni.ˈta:.ja	'prettier'
man.ˈti:.ka	'fat'	ˌman.ti.ˈka:.ja	'his fat'
		ˌman.ti.ˈka:.mu	'your (sg.) fat'
ˈtsu:.pa	'packet of cigarettes'	ˈtsu.ˈpa:.ja	'his packet of cigarettes'
		ˈtsu.ˈpa:.hu	'my packet of cigarettes'
ˌat.ma.ˈgo:.su	'bitter melon'	ˌat.ma.go.ˈsu:.ja	'his bitter melon'

- What kind of CORR-OO constraint can get us this?
- How is this empirically different from letting segmental correspondence constraints refer to prosodic positions?

8. O-O Correspondence between related morphemes only

Crosswhite proposes that O-O correspondence is possible only between parts of related morphemes—GEN doesn't even create candidates with correspondence between unrelated morphemes.

Evidence

- Gemination never occurs to keep a suffix vowel short, in correspondence with the base vowel:

'kan.ta	'song'	kan.ˈta-k.ku	'my song'
		kan.ˈta-m.mu	'your song'
		kan.ˈta-ŋ.ja	'his song'
		ˌkan.ta-n.-ˈma:.mi	'our (excl.) song'
		ˌkan.ta-n.-ˈmid.zu	'your (pl.) song'
		ˌkan.ta-n.-ˈni:.ha	'their song'

- Gemination doesn't occur to keep a prefix V short either:

'leb.blu	'book'	'mi:ˌleb.blu	'abounding in books'
but		ˌmi.lib.ˈbloŋ.ja	'more abounding in books'