Class 3: Reduplication, Part II

To do for next time
- Finish Tagalog assignment (due Wednesday, April 14)

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1. Size and shape of the reduplicant

Reduplicants often have a fixed size, especially one or two syllables, as in the examples we've seen so far. This is left unexplained in a Marantzian CV approach, which prompted McCarthy & Prince (1986) to propose that instead of being CV strings, reduplicants are prosodic structures: Wd, F, σ, σ_μ, $\sigma_{\mu\mu}$, σ_c (=CV).

2. Nakanai (big simplification—see Philip Spaelti's 1997 UCSC dissertation for more)

    bu-buli   'rolling'
    ka-kapu 'pulping'
    gi-giu   'peeling'
    ab-abi   'getting'
    ol-oli   'digging'

o   What would the Marantzian template be here?

o   The McCarthy & Prince template?

o   Why not *a-abi?

3. Ilokano (Hayes & Abad 1989)

singular plural

singular	plural					
ɾwa.ŋan	ɾuː.-ɾwa.ŋan	*or*	ɾwaŋ.-ɾwa.ŋan	*or*	ɾu-ɾ̥.wa.ŋan	'door'
pja.no	piː.-pja.no	*or*	pjan.-pja.no	*or*	pi-p.ja.no	'piano'
bwa.ja	na.ka.-buː-.bwa.ja	*or*	na.ka-.bwaj-.bwa.ja	*or*	na.ka-.bu-b.wa.ja	'crocodile'

o   What would the template be for Ilokano?

o   Why not *pja.-pja.no?

o   In what ways is a description like "copy a syllable" too vague? In what sense is it true in Ilokano that one syllable is copied?

o   How can we tell if a template is being minimally or maximally satisfied?

4.   An excursion into truncation
McCarthy & Prince 1986 give several examples of truncation (see the new PDF version for references to lots more cases).

o   How can we describe what's being preserved in each of these cases? Is it a prosodic constituent of the base? What's the template?

Yapese (Jensen 1977)

name	*vocative*
luʔag	luʔ
bajaad	baj
maŋɛɛfɛɛl	maŋ

Central Alaskan Yup'ik (Woodbury 1985)

personal name	*proximal vocative*
Aŋukaɣnaq	Aŋ ~ Aŋuk
Nupiɣak	Nup ~ Nupix ~ Nupik
Cupəllaq	Cup ~ Cupəl
Aŋivɣan	Aŋif
Kalixtuq	Kal ~ Kalik
Qətunɣaq	Qət ~ Qətun
Maɣʷluq	Maɣʷ
Aɣnaɣayaq	Aɣən (*Aɣnaɣ)
NəŋqəXalɣia	Nəŋəq (*NəŋqəX)
Qakfaɣalɣia	Qak (*Qakfaɣ)
Akiuɣalɣia	Akiuk (with a 'compressed' diphthong)

Afar (Bliese 1981)

frequentative		
tokam tokmeeni	'you (pl.) ate'	
yuʕam yuʕrufeh	'he rested'	
aram argaʕuk	'he cut'	
tifam tifiʕ	'it dripped'	
tubam tubleeni	'you (pl.) saw'	
yamam yamaateeni	'they come'	

Filipino breakfasts: protein item (usually) + rice (<u>sin</u>angag) + egg (it<u>log</u>)

<u>tap</u>silog (tapa)
<u>pork</u>silog (pork)
<u>hot</u>silog (hotdog)
<u>ham</u>silog (ham)
<u>toc</u>silog, <u>toci</u>log, <u>tos</u>ilog (tocino)—I assume in the second two cases that the "c" or "s"
      corresponds to both the *c* and the *s* of the source.
<u>long</u>silog (longganisa)
<u>tuyo</u>silog <u>tuy</u>silog, <u>tus</u>ilog (tuyo)
<u>chi</u>silog, <u>chicks</u>ilog, <u>chik</u>silog (chicken)
<u>spam</u>silog (spam)
<u>liempo</u>silog (liempo)
<u>bang</u>silog (bangus)
<u>ados</u>ilog, <u>ads</u>ilog (adobo)
<u>corn</u>silog (corned beef)
<u>das</u>ilog (daing)
<u>kap</u>silog (kape)
<u>dang</u>silog (danggit)
<u>man</u>silog (manok)
<u>ribs</u>ilog (rib)

The data are not clean, but there is a tendency to preserve as much as possible without exceeding 1 added syllable.

o   In OT, how would we capture the idea of minimal or maximal copying?

5. Kager-Hamilton problem

Under the assumption that reduplicants are empty prosodic structure (templates), you can get partial reduplication:

	/σ+tawag/	MAX-σ	DEP-σ	MAX-BR-σ
a	ta-ta	*!		
b	Ø-tawag	*!		
c	tawag-tawag		*!	
☞ *d*	ta-tawag			*

But you also predict back-copying truncation of the base as part of the typology, which seems to be unattested:

	/σ+tawag/	MAX-BR-σ	DEP-σ	MAX-σ
☞ *a*	ta-ta			*
b	Ø-tawag			*
c	tawag-tawag		*!	
d	ta-tawag	*!		

This is just the typical ranking for back-copying overapplication (as in Tagalog nasal substitution).

The same thing happens with a 'templatic constraint':

	/RED+tawag/	MAX-BR-σ	RED=σ	DEP-IO-σ	MAX-IO-σ
☞ *a*	ta-ta				*
b	Ø-tawag		*!		
c	tawag-tawag		*!		
d	ta-tawag	*!			

6.   Truncation as TETU (The Emergence of The Unmarked)

If the reduplicant is genuinely empty, though, and its surface material is not in correspondence with the input, then you still can get partial reduplication with a TETU ranking:

	/RED+tawag/	REALIZEMORPH	MAX-IO-σ	*STRUC-σ	MAX-BR-σ
a	ta-ta		*!	**	
b	Ø-tawag	*!		**	**
c	tawag-tawag			****!	
☞ *d*	ta-tawag			***	*

(ranking of DEP-IO-σ irrelevant)

And as long as MAX-IO-σ >> *STRUC-σ (i.e., the language has >1-syllable words in general), candidate *a* can't win under any re-ranking of MAX-BR-σ.

o   Under this TETU approach, how do you capture minimal or maximal copying?

7.   Duplemic differences

Different reduplicative morphemes can have different shapes:

Tagalog (V length not marked)

lájoʔ	'distance'	la-lajóʔ	'will avoid'	layú-layóʔ	'somewhat separated'
tirá	'remaining'	nà-ti-tirá	'remainder'	tirá-tirá-han	'leftovers'
dilîrjo	'delirium'	mag-di-dilîrjo	'will be delirious'	dilî-dilirjú-han	'feigned delirium'

They can also have different rules about skipping:

Tagalog

trabáho	'work'	mag-tra-trabaho	~ mag-ta-trabaho	'will work'
gɾúpo	'group'	gɾupo-gɾupo	*gupo-gɾupo	'in groups'

o   Do you have any ideas on how to deal with this?

(This is not part of your assignment! there you can act as though only two-syllable reduplication existed in the language)

Some other issues in reduplication, if we have time…

8.   I-R correspondence?

We saw in the discussion of TETU that reverse TETU (emergence of the unmarked just in the base of a reduplicant) is not predicted by the McCarthy & Prince (1995) model unless there is Input-Reduplicant correspondence.
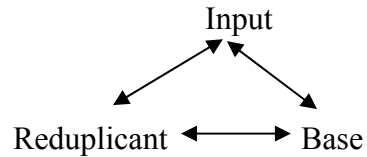
9.   Potential cases of reverse TETU

Several have been identified, though the authors cited here mostly have other analyses: Klamath (McCarthy & Prince), Fox (Burkhardt), Tohono O'odham (Fitzgerald), Kwakwala (Struijke), Lushootseed (Struijke), Pima (Riggle), Chamorro (Klein), Kirundi (Brassil).

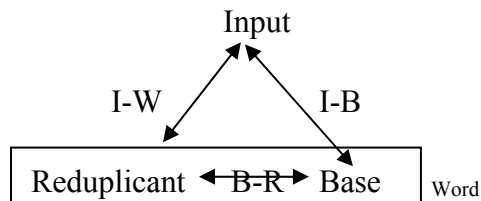Yapese (data from Jensen 1977—I'm not aware of any analysis)

saɑlɑpʰ	'expert'	saɑ-saɑlɑpʰ	'to cheat'
saɣʔɑl	'slow'	saɑ-saɣʔɑl	'slow'
k'eeɣ	'to light a fire'	si-k'ee-k'eeɣ	'to make a fire hotter'
taɾɛɣ	'to sail'	taɑ-taɾɛɣ	'to sail around'
kaðβuulʲ	'morning'	kaɑ-kaðβulʲ	'early'
ʈaŋaɻ	'to look at'	ʈaɑ-ʈŋaɻ	'to look around'
ʈaŋɛɣ	'to fly'	ʈaɑ-ʈŋɛɣ	'to fly around'
ʈʲiŋeeɣ	'to swing'	ʈʲii-ʈʲŋeeɣ	'to swing with force'
ʈʲuɣuɻʲ	'near'	ʈʲuu-ʈʲɣuɻʲ	'near'

10. The Full Model

/RED+ʈaŋɛɣ/		SYNCOPE	*GEMINATE	NOSKIP-IR	NOSKIP-BR	MAX-BR	MAX-IO	DEP-BR
a	ʈaɑ-ʈaŋɛɣ	*!				ŋɛɣ		
☞ *b*	ʈaɑ-ʈŋɛɣ					ŋɛɣ	ɑ	ɑ
c	ʈɛɛ-ʈŋɛɣ			ɑ!ŋ	ŋ!	ɛɣ	ɑ	
d	ʈŋɛɛ-ʈŋɛɣ			ɑ!ŋ		ɛɣ	ɑ	
e	ʈ-ʈŋɛɣ		*!			ŋɛɣ	ɑ	

11. Broad (existential) Correspondence (Struijke 1998, 2000)

/RED+ʈaŋɛɣ/		MAX-IW	SYNCOPE	MAX-BR	MAX-IB	DEP-BR
a	ʈaɑ-ʈaŋɛɣ		*!	ŋɛɣ		
☞ *b*	ʈaɑ-ʈŋɛɣ			ŋɛɣ	ɑ	ɑ
c	ʈɛɛ-ʈŋɛɣ	ɑ!		ɛɣ	ɑ	
d	ʈŋɛɛ-ʈŋɛɣ	ɑ!		ɛɣ	ɑ	
e	ʈ-ʈŋɛɣ	ɑ!		ŋɛɣ	ɑ	

MAX-IW is satisfied as long as each input segment has a correspondent *somewhere* in the word ⇒ Reduplication can allow TETU in the *base*, because the reduplicant is there to satisfy MAX-IW.

Support for this approach: I can't find any evidence of this kind of syncope elsewhere in Yapese (Jensen describes syncope between homorganic consonants only); it really seems to be emergent.

Struijke's (2000) Lushootseed case is similar: unstressed vowel reduction is optional in unreduplicated words, but obligatory in the base of reduplication (there's also vowel deletion).

/ʔagʷal+əb/ → ʔágʷəl-əb ~ ʔágʷal-əb 'yawn'
/RED+ʔagʷal+əb/ → ʔá-ʔəgʷàl-əb *ʔá-ʔagʷàl-əb (missing gloss)

ID-VQUAL-IW ~ *UNSTRCORNERV

ID-VQUAL-BR

This is *existential* faithfulness because instead of

$$\forall\text{IDENT(F)-}S_1S_2: (\forall a\in S_1)\ (\forall x\in S_2)\ (aCx \rightarrow F(a)=F(x))$$

it's

$$\exists\text{IDENT(F)-}S_1S_2: (\forall a\in S_1)\ ((\exists x\in S_2)\ (aCx)) \rightarrow ((\exists x\in S_2)\ (aCx\ \&\ F(a)=F(x)))$$

11.1 The RED-shift problem (Riggle 2002)

(Or, How do you know which is the reduplicant, anyway?)

	/RED+ʈaŋɛɣ/	MAX-IW	SYNCOPE	MAX-BR	MAX-IB	DEP-BR
a	ʈaŋɛɣ-ʈaŋɛɣ		*!	ŋɛɣ		
b	ʈɑɑ-ʈŋɛɣ			ŋ!ɛɣ	ɑ	ʈaŋɛɣ
c	ʈɛɛ-ʈŋɛɣ	ɑ!		ɛɣ	ɑ	
d	ʈŋɛɛ-ʈŋɛɣ	ɑ!		ɛɣ	ɑ	
e	ʈ-ʈŋɛɣ	ɑ!		ŋɛɣ	ɑ	
☞ f	ʈaŋɛɣ-Ø				ʈaŋɛɣ	

Under this ranking, candidate *f*, where all the material shifts into the reduplicant, is actually the best! If it is ruled out by REALIZEMORPH, then some close competitor will win, like [ʈaŋɛɣ-ʈɑ] (which violates Marantz's generalization that prefixing reduplicants copy from the left edge and suffixing ones from the right edge).

Riggle reanalyzes this type of case as reduplicative *infixation*: [ʈɑɑ-ʈ-ŋɛɣ]—in this Yapese case, the first vowel also needs to get lengthened somehow.

12. Fixed segmentism

Marantz: A morpheme can be somewhere between a 'normal' one (with full CV tier and melody) and a reduplicant (with only CV tier): full CV tier and insufficient melody:

```
C  V
   |
   i
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Prespecified material takes precedence over copied melody.

Alderete & al. (1999) propose that there are two types of fixed segmentism

- TETU (reduplicant has some 'default' material)

Yoruba
gbóná	'be warm'	gbî-gbóná	'warmth'	
jɛ	'eat'	jî-jɛ	'eating'	
rî	'see'	rî-rî	'seeing'	

What counts as a default can vary according to context—this makes prespecification look undesirable:

Nancowry[1]
coronal stops	sut	'to rub'	ʔit-sut	'to kick with the foot'
	kiɲ	'to monkey'	ʔin-kiɲ	'to show the teeth like a monkey'
non-coronal stops	ɲiák	'binding'	ʔuk-ɲiák	'to bind'
	rom	'flesh of fruit'	ʔum-rom	'to eat pandanus fruit'

o Can you give an analysis of Yoruba that doesn't use prespecification?

- Melodic overwriting

English "fancy-shmancy" reduplication: *shm*- is a separate prefix, which overwrites the reduplicant because of alignment considerations. (Because of the way faithfulness works, reduplicants are especially susceptible to overwriting.)

	/table-RED-shm/	MAX-IO	MAX-BR	DEP-BR
☞ *a*	table-shm[able]$_R$		t	
b	table-[table]$_R$	sh!m		
c	shmable-[table]$_R$	t!	shm	t
d	shmable-shm[able]$_R$	t!		

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[1] This is actually opaque because [+continuant] Cs from the base get deleted…

Wrinkle in English: how do you fill in this blank?

> Joe: We need to find some shmalts [chicken fat]. You can't make those dumplings
>   properly without shmalts.
> Steve: Oh, shmalts-_____. My own grandmother used Crisco.

13. Differences between TETU and overwriting

- In TETU, the default segments must be a subset of the whole inventory; there may be
  independent evidence that they are unmarked; and there can be conditioned variability.
- In overwriting, there's no restriction on inventory; the overwriting affix should tend to be at
  the edge; it can "alternate suppletively". The language can also have more than one
  overwriting morpheme (Hindi has *w*, *s*, and rare *m*). The overwriting material tends to be at
  an edge (makes sense if alignment constraints govern morpheme placement).

Counterexamples would include…
- Fixed initial [s] that palatalizes to [ʃ] before [i], despite no such general rule in the language.
- Nancowry-like case that dissimilates in suppletive fashion if accidentally similar to base.