Class 15: Structure above the segment III, practice

To do
- Next reading Hall 2006 (due Thursday)
- Project: have talked to me a second time by the end of this week

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Overview: Some more time on prosodic words, then practice with feet in OT.

1   Recap of descriptive example from Samoan

- Domain of footing (p-word) in Samoan is a lexical root (Noun, Verb, Adj), plus any associated bound morphemes <u>after</u> it (Zuraw, Yu & Orfitelli 2014):
  - [root]$_{\text{p-wd}}$
  - [root-suffix]$_{\text{p-wd}}$
  - prefix-[root]$_{\text{p-word}}$
  - [root]$_{\text{p-word}}$-[root]$_{\text{p-word}}$
→ every root initiates a new p-word.

- This is a very common pattern cross-linguistically (see (Peperkamp 1997) for a review and some in-depth case studies).

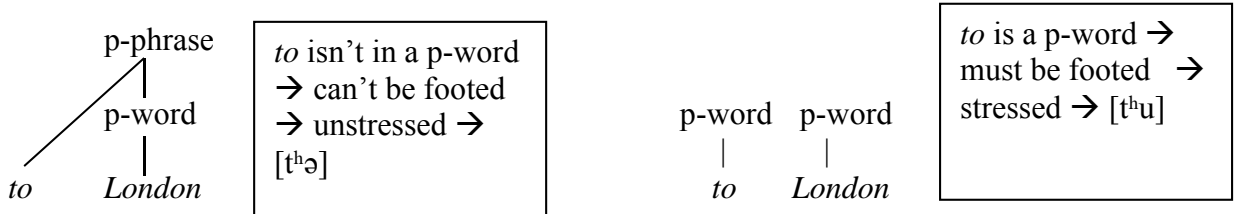## 2   How can an analysis capture what counts as a word?

- Following (Peperkamp 1997), we can do it with ALIGN constraints ((McCarthy & Prince 1993)), such as ALIGN(LexWord, L; PWord, L).

o   Let's try some tableaux for Samoan.

3 English example

- Many English function words (i.e., not Nouns, Verbs, or Adjectives) have weak and strong forms.

	strong	*weak*
to	tʰu	tʰə
at	æt	ət
for	foɹ	fɚ
a	eɪ	ə _
and	ænd	n̩

  o   I'm going __ London next summer.   Where are you going __?
          I'm looking __ Campbell Hall.   What are you looking __?

- (Selkirk 1995) proposes two possible structures:

p-phrase

     p-word

to   *London*

> *to* isn't in a p-word → can't be footed → unstressed → [tʰə]

p-word   p-word

to   *London*

> *to* is a p-word → must be footed → stressed → [tʰu]

- To avoid cluttering the tableau, assume that the "t[u]"'s form a foot with stress; "t[ə]"'s are unfooted.

	to London	ALIGN (LexWd,L,PWd,L)	ALIGN (PWd,R,LexWd,R)	FOOTMUST BEDOMINATED BYPWORD
a	[tʰ**u** London]ₚWd	*!		
b	[tʰ**ə** London]ₚWd	*!		
c	tʰ**u** [London]ₚWd			*!
☞ *d*	tʰ**ə** [London]ₚWd			
e	[tʰ**u**]ₚWd [London]ₚWd		*!	
f	[tʰ**ə**]ₚWd [London]ₚWd		*!	

(Focus changes things: *I need a flight TO London, not FROM London.*)

  o   *looking at*: draw a phonological tree that causes *at* to be pronounced in its full form

o Fill in the tableau (we needed to add some constraints). Assume "[æ]t" is footed, "[ə]" isn't.

looking at	ALIGN (LexWd,R, PWord,R)	ALIGN (PPhrase,R, Pwd,R)	ALIGN (PWd,R, LexWd,R)	FOOTMUST BEDOMINATED BYPWORD	PWORDMUST CONTAIN FOOT
a [looking æt]ₚwd					
b [looking ət]ₚwd					
c [looking]ₚwd æt					
d [looking]ₚwd ət					
☞ *e* [looking]ₚwd [æt]ₚwd					
f [looking]ₚwd [ət]ₚwd					

⇒ *looking* needs to end a p-word, but phrase wants to end w/ a p-word, so *at* must end its own p-word.

4 Dutch example ((Gussenhoven & Jacobs 1998), p. 250)

- In Dutch, resyllabification applies across some morpheme boundaries but not others. I'm including an inserted glottal stop since I think that's what's intended as the evidence for syllabification.

  [ɔnt.[ʔɛi.χən]ᵥ]ᵥ 'dispossess' [[kɛrk]ɴ.[ʔœyl]ɴ]ɴ 'barn owl' [[teː.kə.n]ᵥ ɪŋ]ɴ 'drawing'
  [ɔn.[ʔɛː.vən]ₐ]ₐ 'uneven' [[rɛin]ɴ.[ʔaːk]ɴ]ɴ 'Rhine barge' [[ʋɑn.də.l]ᵥ aːr]ɴ 'walker'

- G&J propose that resyllabification is blocked across a p-word boundary (parentheses below mark p-words)...

  (ɔnt.)-(ʔɛi.χən)   (kɛrk.)-(ʔœyl)   (teː.kə.nɪŋ)
  (ɔn.)-(ʔɛː.vən)   (rɛin.)-(ʔaːk)   (ʋɑn.də.laːr)

o Let's fill in the alignment constraints:

/[ɔn [ɛːvən]ₐ]ₐ/				DEP-ʔ	NOCODA
☞ (ɔn.)(ʔɛː.vən)					
(ɔ.n)(ɛː.vən)					
(ɔ.nɛː.vən)					

/[[teːkən]ᵥ ɪŋ]ɴ /				DEP-ʔ	NOCODA
☞ (teː.kə.nɪŋ)					
(teː.kən.)(ʔɪŋ)					
(teː.kə.)(nɪŋ)					

- o What should happen to function words, like pronouns and determiners, assuming the same ranking?

/[rip]ᵥ [ən]det [kɑt]N/ call a cat				DEP- ?	NOCODA
(rip.)(ʔən.)(kɑt)					
(ri.pən)(kɑt)					

5   More evidence in Dutch: long-vowel diphthongization (p. 252)

- /eː, øː, oː/ become [eᵊ, øᵊ, oᵊ] before [r], regardless of syllabification:

[meᵊr]N   'more'   [køᵊˈraːl]N   'coral'
[χøᵊr]N   'smell'   [[koᵊr]ᵥ ɪŋ]N   'test'

- o Why doesn't the alternation apply here:

[[[meː [rɛi.z]ᵥ]ᵥ₋ₙ]ᵥ   'to accompany'   [[køː]N [rɪŋ]N]N   'cue ring'

[[mil.jøː]N [ri.zi.kŏ]N]N 'environmental hazard'   [neː.o[[reː.v]N ians]A]A 'neo-Revian'

6   More evidence in Dutch: conjunction reduction (see also (Booij 1985))

just spelling here, not IPA
        [[land]N[bouw]N]N en [[tuin]N[bouw]N]N *optionally becomes*   land en tuinbouw
           agriculture   and   horticulture   agri- and horticulture

but: [[absurd]Aiteit]N en [[banal]Aiteit]N   *cannot become*   *absurd en banaliteit
           absurdity   and banality   absurd- and banality

- o Why not *absurd en banaliteit*?

7   The phonological word in some other languages
- Sanskrit, Turkish, Hungarian, Malagasy, Tagalog, Bengali, and Italian have pretty much the same p-word boundaries as Samoan or Dutch, with some slight wrinkles.

- In Italian, for example, only prefixes that are semantically transparent stand outside the stem's p-word ((Peperkamp 1997), (van Oostendorp 1999)):
        (a)-(sociale) 'asociale'   *but*   (re-sistenza) 'resistance'

  - ▪ Provides a way to test Italian speakers' morphological intuitions: see (Baroni 2001) on N. Italian intervocalic voicing of /s/, which applies only if the surrounding vowels are in the same p-word.

- *Yidinʸ* (Australian language, with very few remaining speakers. (Nespor & Vogel 1986), data from (Dixon 1977))

    - Penults of odd-syllabled p-words lengthen—no long vowels otherwise.

gu.daː.ga	'dog'	gu.da.ga.-gu	'dog-*purp.*'
mu.ḍam	'mother'	mu.ḍaːm.-gu	'mother-*purp.*'
ma.ḍiːn.da-ŋ	'walk up-*pres.*'	ga.liː.-na	'go-*purp.*'
ga.liŋ	'go-*pres.*'	ŋu.naŋ.ga.raː-n.da	'what-*dat.*'

  o Based on the data above, are suffixes part of the p-word?
  o So what should we make of examples like these, with longer suffixes:
      gu.maː.ri-da.gaː.-ɲu   'red-*inch.-past*'   ma.ḍiːn.da-ŋa.liŋ   'walk up-*pres*'

8 Do we need the p-word?

- In 2006, a group of us spent about 40 hours debating the issue (see www.linguistics.ucla.edu/people/zuraw/courses/prosword_2006.html for handouts).
Results were inconclusive:
    - Often, interleaving phonology and morphology can do the job (add some affixes too late for certain processes to see them).
    - But there was a residue of cases where it seemed like we really might need the p-word. The last handout at the link above sums up the pro and con arguments.

9 Practice with footing the p-word in OT: Manam
Data from Lichtenberk 1978) Lichtenberk 1983, Buckley 1998 .

o Develop an OT analysis of Manam stress using feet.
o Assume that each vowel is the nucleus of its own syllable (e.g. [go.a.i]). Assume that consonants are always syllable onsets, except for non-prevocalic nasal (e.g. [lun.ta], [maŋ]).

1.	ú	'kind of fish trap'	*try drawing feet first*
2.	gá	*Morinda citrifolia*	- trochaic or iambic?
3.	máŋ	'bird'	- right- or left-aligned?
4.	pátu	'stone'	- what happens to leftovers:
5.	dámʷa	'forehead'	unfooted, or subminimal foot?
6.	tágo	'not'	- which foot gets primary stress?
7.	zére	'sorcery'	
8.	bázi	'wing'	
9.	siŋába	'bush'	
10.	tanépʷa	'chief'	
11.	garíbʷa	'flower sheath of palm tree'	
12.	ì-monáqo	'*3sg.rl*-eat'	
13.	tanèpʷa-tína	'chief-*int*'	
14.	bòtazíŋa	'hole'	

15.	móa	'penis'	these shouldn't present any problems for a preliminary analysis based on 1-14. But once you're done, check that these still work.
16.	sái	'spoon'	
17.	róa	'spouse'	
18.	áe	'leg'	
19.	soʔái	'tobacco'	
20.	ʔetéa	'side of canoe opposite outrigger'	
21.	ì-boqáu	'*3sg.rl*-be.bent'	
22.	ʔòadéʔa	'then'	
23.	bòazíŋa	'hole'	
24.	i-mòatúbu	'*3sg*-be.heavy'	*explain why these are different*

25.	lúnta	'moss'	
26.	mómbʷa	'victory leaf'	
27.	utáŋ	'*1sg.rl*-cry'	
28.	émbeʔi	'sacred flute'	note: not *[èmbéʔi]
29.	úŋguma	'person from a village other than one's own'	
30.	èmbeʔi-tína	'sacred.flute-*int*'	
31.	i-dàn-dàn-la-láʔo	'*3sg.rl*-crawl-*rpl*-*lim*-thither'	not *[i-dan-dàn-la-láʔo]
32.	mòmbʷa-tína	'victory.leaf-*int*'	
33.	màlabóŋ	'flying fox'	

34.	náita	'who?'	*explain why these are different*
35.	móasi	'song'	• why do these candidates win, instead of the candidate you would have expected based on the analysis up until now?
36.	ʔáoga	'two pieces of wood rubbed against each other to produce fire'	
37.	bóesa	'Boesa Island'	
38.	góai	'star'	
39.	táua	'trading partner'	• you'll have to invent a constraint here
40.	tamóata	'man'	
41.	i-pòasagéna	'*3sg.rl*-be.tired'	
42.	gòai-tína	'start-*int*'	
43.	ròa-na-tína	'her real husband'	
44.	jàuja-tína	'good-*int*'	
45.	j-un-àu-tína	'he hit me a lot'	
46.	wàuwáu	'new'	
47.	disòaʔinóʔa	'they sat down first'	

| 48. | biéŋ | 'Bieng (place)' | I could only find one like this but don't ignore it! |

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