Study questions on K&K ch. 8 (pp. 318-327), Anderson 1984 ch. 9,[1] and Kaplan 2008 (pp. 1-4, 8-16)[2]

To be turned in Tuesday, Oct. 22

Notes on K&K ch. 8

pp. 318-319 "Direct mapping principle": theory in which you try to apply all the rules, simultaneously, to the input (just once). As we saw in class, you can't get feeding this way, only counterfeeding. We also saw that you can't get bleeding, only counterbleeding.

p. 325 "Free reapplication principle": theory in which you try to apply all the rules, simultaneously, to the input; repeat on the result; and repeat again, until no more changes apply. As we saw in class, you can't get counterfeeding, only feeding (opposite of Direct Mapping); and you still can't get bleeding, only counterbleeding.

Notes on Anderson ch. 9

p. 125 [reminders from notation review] "$X(Y)_0Z$ has to be applied disjunctively, with only the longest expansion applicable being applied": this means the schema expands into rules that look for XZ, XYZ, XYYZ, XYYYZ, etc., but only the longest of the applicable rules (the one that demands the most *Y*s) gets to apply.
"disjunctive" = involving an exclusive choice among options—i.e., at most one of the infinite number of rules defined by the schema can apply.

p. 125 "mora"—a unit of abstract *weight* (which roughly correlates, in the physical world, with duration, though not exactly). Moras were proposed mainly because they are useful in describing the typologies of stress and compensatory lengthening.

p. 126 "two different forms of the infinite schema notation": i.e., $(X)_0$ and (X)*.

p. 132 "exchange rule" e.g. $\begin{bmatrix} \text{V} \\ \alpha\text{round} \end{bmatrix} \rightarrow [-\alpha\text{round}]$ / __ C#. It's not clear, though, whether such rules exist, so the limitation Anderson proposes may not be necessary.

p. 132 A consonant cluster created by juxtaposing consonants from two different morphemes, as in *stem*+...<u>*C+C*</u>... is not considered "underlying" here (or "original", in Swadesh & Swadesh's words).

p. 133 In (15), I think the stuff after the underscore was supposed to be in { }, not in [].

Notes on Kaplan 2008

pp. 3-4 [i,u] are [+ATR]; [ɪ,ʊ,ɛ,ɔ] are [–ATR]. It's only the high vowels in the prefixes that can undergo harmony (but see Gick et al. 2006[3] for acoustic data).

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[1] Anderson, Steven (1984). *The Organization of Phonology*. New York: Academic Press. Ch. 9: pp. 124-133

[2] Kaplan, Aaron (2008). *Noniterativity is an Emergent Property of Grammar*. UC Santa Cruz dissertation.

[3] Gick, Bryan, Douglas Pulleyblank, Fiona Campbell & Ngessimo Mutaka. 2006. Low vowels and transparency in Kinande vowel harmony. *Phonology* 23: 1-20.

p. 12 AGREE is violated if adjacent vowels (ignoring intervening consonants and [a]s) disagree for [ATR].
For every [ATR] specification in a word, ALIGN([±ATR],L;Wd,L) is violated once for every vowel that separates it from the left edge of the word. This assumes representations like the following (autosegmental representations, which we haven't covered yet):

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t ʊ k a k ɪ l i m a
  \       /  |
  [–ATR] [+ATR]
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Here, the [+ATR] is separated from the left edge of the word by [tʊkakɪl], which has 3 vowels, so 3 violations.

Questions

1. K&K discuss the predictions of various answers to the question of (potential) multiple application of a single rule to a single form. Here are some data from Woleaian[4] where the predictions could be tested:

underlying	*surface*		*underlying*	*surface*	
/mata/	[mate]	'eye'	/mata+i/	[metai]	'my eyes'
			/mata+mami/	**[matemami]**	'our eyes'
/parasa/	[perase]	'switch'	**/parasa+rasa/**[5]	**[peraserase]**	'splash-intrans.'

final-V raising V → [–low] / __ #

dissimilation V → [–low] / __ $C_0 \begin{bmatrix} -\text{cons} \\ +\text{low} \end{bmatrix}$

Assume that final-V raising applies first (there is no multiple-application issue there). Then dissimilation applies, and for some forms there is a multiple-application issue.

Derivations with no multiple-application issue at all (i.e., the structural description of dissimilation is met at most once in the form):

	/mata/	/mata+i/	/parasa/	
final-V raising	mate	--	parase	
dissimilation	--	metai	perase	OK : these all work.

<u>**Now the actual question**</u>: for each approach, show the predicted result for the two **bolded** forms from above; where that result is wrong, briefly say why.

<u>simultaneous application:</u> /mata+mami/ /parasa+rasa/

[4] Data originally from Sohn, Ho-Min (1975). *Woleaian Reference Grammar*. Honolulu: University Press of Hawaii. Case pointed out by Colin Wilson.
[5] There could be another analysis of this that takes advantage of the presence of reduplication.

simultaneous iterative application: /mata+mami/ /parasa+rasa/
show each iteration as a separate step

directional iterative application (left to right): /mata+mami/ /parasa+rasa/
show each iteration as a separate step

directional iterative application (right to left): /mata+mami/ /parasa+rasa/
show each iteration as a separate step

2. Show what each of the following rules would do to the string /badlupikronebuta/, under the assumptions of Anderson pp. 124-125 (don't apply the rules one after another; treat each one as a separate derivation):

$[+syll] \rightarrow [+stress] \,/\, \#C_0$ ___

$[+syll] \rightarrow [+stress] \,/\, \#C_0VC_0VC_0$ ___

$[+syll] \rightarrow [+stress] \,/\, \#C_0(VC_0VC_0)$ ___

$[+syll] \rightarrow [+stress] \,/\, \#C_0(VC_0VC_0)_0$ ___

$[+syll] \rightarrow [+stress] \,/\, \#C_0(VC_0VC_0)^*$ ___

and show what this rule would do, if it can apply to its own output (show each iteration, in order):

$$[+syll] \rightarrow [+stress] \,/\, \left\{ \begin{matrix} \begin{bmatrix} V \\ +stress \end{bmatrix} C_0V \\ \# \end{matrix} \right\} C_0 \underline{\quad}$$

3. On p. 132, Anderson describes what sounds like a case of non-iterativity in Nitinat. Looking at the data in Swadesh & Swadesh, it's unclear to me how much we really need non-iterativity here (is the only "consonant cluster" that can end a stem-suffix /t͡ɬ/? possible term-paper topic!). But suppose we do. A simplified version of rule (15),

$V \rightarrow \emptyset$ / __ C_1#   *non-iterative*

should apply thus to these hypothetical forms:

/sameks/ → [samks]   /somakis/ → [somaks] not *[somks]

Having read Kaplan, briefly explain why this would be problematic for OT (sentence fragments are OK!). Include a failed tableau for /somakis/. (You'll have to invent some crazy-seeming markedness constraint to drive the deletion in the first place.)