Study questions on K&K ch. 10 (pp. 393-401, 407-424) and Kiparsky 2000[1]
To be turned in Tuesday, Nov. 3

Notes on K&K
p. 394 "general convention that incorporates these rule-features in to the feature matrix of each segment contained in the morpheme": this means that either every relevant segment in the morpheme is exceptional, or none of them are.
p. 385, last paragraph "merge with" = "become"
pp. 410-411 Notice well which vowels have a little mark on top indicating that they are yers! Cf. 'louse-nom. sg.' and 'louse-gen. sg.'.
p. 410 "In Russian [...] the final yer of a stem will delete or vocalize depending on whether it occupied odd or even position in a sequence of yers": still means odd or even counting from the end, I think, as in Ukrainian. The difference between Russian and Ukrainian shows up in (14), where you can have a bunch of Russian yers vocalized in a row, as long as they are all in the stem (the material in square brackets).

Notes on Kiparsky
throughout You'll need to read this at fairly big magnification in order to see the difference between fí and fi.
p. 3 the "prosodic head" of the word is its main-stressed syllable.
p. 3 in (2), the idea is that the stress rule stresses a final syllable if it is (C)VCC (so /katab+t/ → [ka.tábt], and the [i] is inserted later). If the final syllable is just (C)V(C) and the penult is (C)V, it stresses the antepenultimate (second-to-last) syllable: /katab+at/ → [ká.ta.bat].
p. 3 again: You saw data like (3) in K&K ch. 10: the /aa/ (or /aja/, in K&K's analysis) becomes [i] when __CC, but stays (or becomes) [aa] when __CV.
p. 4 You can skip the part about Sympathy! Skip to last paragraph of p. 5.
p. 5 "lexical" phonology applies first, to single words, then the results are put together and subjected to "postlexical" phonology. Kiparsky's proposal is to do this in OT: have one constraint ranking that applies to stems, then add object suffixes to the result and run it through a second, potentially different, constraint ranking that applies to whole words, then put the results together into phrases (if necessary) and send them through a third, postlexical, ranking.

Questions
1. The first part of the K&K reading talks about adding various kinds of diacritics to lexical entries. Maybe something like that could help in a rule-based analysis of Ladakhi. Do you have an ideas about how the problematic [t͡ʃukʃik] '11' (expect *[t͡ʃukt͡ʃik]) could be handled by such an approach? (The same thing happens in all the 10*n*+1 forms: [ɲiʃu-t͡sa-kʃik] '21', [sumt͡ʃu-so-kʃik] '31', [ʒipt͡ʃu-ʒa-kʃik] '41', etc.)

[1] Kiparsky, Paul. 2000. Opacity and Cyclicity. *The Linguistic Review* 17:351-367.

2. The Russian rule in K&K's (15) stipulates that it applies differently in stems (which include derivational suffixes) and whole words. Show the derivations that K&K have in mind for the assumed URs below—square brackets [] surround the stem:

/ [dĭn' + ŭk] + ŭ / / [dĭn' + ŭk] + a / / [dĭn' + ŭk + ĭk] + ŭ / / [dĭn' + ŭk + ĭk] + a /

3. In K&K, the difference between subject suffixes and object suffixes with respect to the "hollow roots" in Cairene Arabic (pp. 415-416) is addressed by having a stronger boundary before the object suffixes. Assume the following phonological rules:

preconsonantal shortening: (targets /aya/ and /awa/)

$$\underset{1}{a}\begin{bmatrix}-\text{cons}\\-\text{syll}\end{bmatrix}\ \underset{2}{a}\ \underset{3}{C}\ \begin{Bmatrix}C\\\#\end{Bmatrix}\ \underset{4}{\rightarrow}\ \begin{bmatrix}2\\+\text{syll}\end{bmatrix}\ \underset{5}{4}\ 5$$

final and prevocalic glide deletion

$$\begin{bmatrix}-\text{cons}\\-\text{syll}\end{bmatrix} \rightarrow \emptyset \,/\, a\_\_a\ (C)\begin{Bmatrix}\#\\V\end{Bmatrix}$$

Treat the addition of a subject suffix and the addition of an object suffix as two rules, which can be ordered amidst the phonological rules. Try to analyze the data <u>without</u> using two different boundary types. [If this seems strange, read on to the cyclic-rules section, pp. 421-424.] Show derivations:

/šayal/, with rule adding subject suffix *–ti*

/šayal/, with rule adding object suffix *–ni*

4. Kiparsky's tableaux in (20) on p. 11 show one step in the analyses of 'he understood us' (top) and 'we understood' (bottom). The part of the input in square brackets represents what has already been done at the stem level (in 'he understood us', it's just the verb root because there's no overt subject suffix, and in 'we understood' it's the verb root plus subject suffix *-na*). The stuff outside the brackets is the morphology being added now, at the word level (in 'he understood us', it's the object suffix *-na*, and in 'we understood', it's nothing because there's no object suffix). The winning candidate in each tableau becomes the output of the word-level phonology, which can then be sent off to the postlexical phonology.

For what happens earlier, see schematic on bottom of p. 10, which shows the output of each level: the underlying verb root (not shown) goes through the stem level constraint ranking alone. If there's a subject suffix, it's added and the result goes through the stem level again. Then the object suffix (if any) gets added, and the result goes through the word level—even if there's no object suffix added, the form still has to go through the word level.

Complete Kiparsky's analysis by showing both rounds of application of the earlier, stem level, for 'he understood' and 'we understood'. The output of the second round should match the second line in the derivation on the bottom of p. 10. That is, it needs to turn /fihim/ (input form—no stress) into |fíhim|, and |fíhim+na| into |fihímna|. The stem level may have a different ranking than the word level.