Background
This paper attempts to compare the predictions of synchronic and diachronic non-teleological approaches to one class of (apparently) functionally motivated constraints. (This is a draft that I am in the process of revising; any suggestions you have would be most welcome. Please do not hesitate to criticize this paper as enthusiastically as we have been criticizing everybody else. Go for it!)

Questions to keep in mind while reading

• What are the assumptions of the synchronic functional grounding model of the phonology-phonetics interface according to Smith?

• What are the assumptions of the diachronic misperception and re-phonologization model of the phonology-phonetics interface according to Smith? Are there differences between this summary of the model, and the discussion we have seen in Hyman (2001) and Blevins & Garrett (2004)?

• What is the vowel-reduction asymmetry? How does each model account for this typological pattern? What is the crucial difference in CON between the two models?

• What kind of pattern does Smith propose would be crucial evidence in favor of the synchronic functional grounding model? Does this claim seem right?

• What are the defining characteristics of a positional augmentation phenomenon? What are the formal characteristics of a positional augmentation constraint according to Smith? What are the functional restrictions on the set of attested positional augmentation constraints?

• Any comments on the chart in (5)? Do there seem to be patterns here that Smith does not discuss?

• Any questions or criticisms concerning the case studies in section 4?

• What arguments does Smith raise against a diachronic misperception and re-phonologization account of the functional restrictions on positional augmentation constraints? Can you think of counterarguments that Blevins & Garrett might be able to raise in support of their model?

• What is the importance of (lack of) teleology in the Ohala/Blevins&Garrett/Barnes diachronic-grounding model? Why does Smith argue that incorporating teleology into a diachronic-grounding model would be problematic? How strong is this argument?
Some points for further thought and discussion

- Can you think of any other types of evidence that would distinguish between synchronic and diachronic sources of phonetic influence on the phonology?

- Thinking back over Hyman (2001), Blevins & Garrett (2004), and Barnes (2002, as described by Smith), what are some ways of setting up a synchronic phonological system in which all phonetic influences are assumed to be diachronic (and non-teleological)?
  
  - What formal characteristics could this synchronic phonological system have? Could it be an OT system?
  
  - What would the interface between synchronic phonology and diachronic change look like in this kind of model?