## Prince & Smolensky 1993<sup>1</sup> excerpt study questions Due Thurs., Oct. 16

• Read pp. 1-7, skim pp. 9-22—if you are new to OT, pay attention to the explanations of the tableaux on pp. 18-20—then read pp. 23-38.

## Notes

p. 2: By 'analysis' here, P&S mean something like 'potential surface form (output) of the underlying form (input) in question'.

p. 3: By the way, requiring the grammar to impose a stratified ordering on candidate analyses (for any pair, either they have the same harmony or you know which is more harmonic) is not a logical necessity. Consider the following Hasse diagram of candidate harmony according to some hypothetical constraint set:



p. 4: (2) illustrates two functions. In words: 'The function Gen applied to an input  $In_k$  [the underlying form] produces the set of candidate outputs {Out<sub>1</sub>, Out<sub>2</sub>, ...}, where each output contains information telling you what the input was. The function H-eval applied to that set of candidates produces a single output, Out<sub>real</sub> [the actual surface form—though more generally, this could be a set of tied winners].'

You may worry about how H-eval can possibly deal with an infinite set of candidates. Most computational proposals for dealing with infinite candidate sets manipulate regular expressions (like ab\*a, the set of all strings consisting of an *a* followed by zero or more *b*s followed by an *a*), which are themselves finite but can represent infinite sets.

Don't worry too much for now about the idea, known retrospectively as *containment*, that all the structure of the input is retained (even if not pronounced) in each output—it was abandoned soon after by most OT phonologists in favor of a different way of encoding the input-output relationship (McCarthy & Prince's correspondence theory).

p. 12: 'Margin' here means a syllable onset or coda—i.e., whatever is not the nucleus.

<sup>&</sup>lt;sup>1</sup> Prince, Alan & Paul Smolensky (1993 [2002]). Optimality Theory: constraint interaction in generative grammar. RuCCS-TR-2 and CU-CS-696-93 [ROA 537-0802]. Published 2004 by Blackwell.

p. 24: Containment theory again: the idea that an epenthetic segment is just an empty segment slot, and it's up to a post-phonology component to decide how to pronounce it, has also largely been abandoned. Most OT phonologists now assume that the candidate set for /al-qalam+u/ includes also \*[talqalamu], \*[palqalamu], etc., and that it is up to the grammar to select [?alqalamu] as optimal.

p. 25: For those of you who already know OT, FILL is roughly today's DEP ("don't insert"). And PARSE, in case you read further into the paper, is roughly today's MAX (don't delete).

p. 30: By 'coalescence', I think P&S mean putting a long vowel in a single syllable.

p. 34: The claim about Austronesian infixes always being VC (and the implication that in a language with a VC infix there could be no VC prefixes) has been challenged by Blevins, Yu, Kaufman, and probably others.

p. 36: [g-um-radwet] is actually possible (try a Google search for "gumraduate"!). Various people, including me, have reanalyzed Tagalog infixation since then.

## Questions

1. Find an example of a constraint triggering a rule that we've seen in the course, and think of it in terms of an interaction between two constraints. Give a mini-tableau illustrating the ranking of those two constraints—also say what the language is and where the example comes from (e.g., which reading, class handout, or assignment).

2. Do the same for a case of a constraint blocking a rule.