Study questions on Steriade 2001[1] , pp. 1-33
To be turned in Tuesday, Nov. 10

Notes
p. 1   "correspondence constraints" = "faithfulness constraints": MAX, DEP, IDENT, LINEARITY (don't change order of segments) etc.
p. 5   The contexts in the IDENT constraints in (4) are *output* contexts rather than input contexts.
Section 2.2 can be skimmed
p. 8   For a proposal on how to turn confusion rates (e.g., how often a subject presses the "p" button in response to a "b" stimulus) into similarity scores, see Wilson, Colin. 2006. Learning Phonology with Substantive Bias: An Experimental and Computational Study of Velar Palatalization. *Cognitive Science* 30(5). 945-982.
p. 11   "V-C transitions": if you look at a spectrogram that includes a <u>v</u>owel-<u>c</u>onsonant sequence, you'll see that the vowel's formants (caterpillar-looking bands that indicate frequency ranges with increased energy) curve on the way in to the consonant. This area of "V-C transition" gives the listener information about the vowel's place of articulation.
p. 12   "phonotactic optimization afforded by changes like *apsa -> pasa*": violations of NOCODA and ONSET are both eliminated
p. 16   "syntagmatic context"= what sounds precede and follow the sound in question
p. 20   "In the similarity comparison between the pairs in (15)" should be **(14)**, I think.
p. 20   "the voicing contrast (15.a) stands out because it is the only one to be lacking what is considered its primary perceptual correlate: the VOT value": "VOT" = "voice onset time" = the duration from the consonant's closure release until voicing begins in the following sound; if voicing is already present during the stop closure, then VOT will be negative.

In an English word like *teen*, after the [t] is released it might take about 80 msec. for voicing to begin in the following vowel, so the [t] has a VOT of 80 msec. By contrast, the [d] in *dean* (which is not actually voiced during its closure) might have a VOT of only 20 msec. Differences in VOT are a major cue to the feature [voice].

When a word is uttered in isolation, its final sound has no ability to manifest a positive VOT (since there's no following sound), so that cue is not available.

pp. 23-24 This paper is assuming that the "less confusable than" relation is transitive

p. 25   MAX[αF] constraints: we'll talk about these when we talk about autosegmentalism. The idea is to treat a [+nasal] specification like a segment, which can have or lack a correspondent. MAX[+nas] is violated in (a) and (b) below, but not (c), though all violate IDENT(voice) at least once:

(a) $/ d_1 \, i_2 \, m_3 /$ $\rightarrow$ $/d_1 \, i_2/$ (b) $/ d_1 \, i_2 \, m_3 /$ $\rightarrow$ $/ d_1 \, i_2 \, b_3/$ (c) $/d_1 \, i_2 \, m_3 /$ $\rightarrow$ $/ n_1 \, i_2 \, b_2/$
         | | | |
      $[+nas]_4$ $[+nas]_4$ $[+nas]_4$ $[+nas]_4$

In (19), the first candidate has lost the [+voice], but in the second candidate the [+voice] has just moved over (without explicit drawings like the above, it's hard to say why the second candidate

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[1] Steriade, Donca. 2001. *The phonology of perceptibility effects: the P-map and its consequences for constraint organization*. UCLA.

has also lost a [–nas], according to its constraint violations, rather than just moving the [–nas] to the other consonant).

p. 31, fn. 8   "not structure-preserving" = creates a sound ([β]) that is not in the phoneme inventory (of Turkish, in this case)

p. 31   "stricture contrasts": e.g., stop vs. fricative, stop vs. approximant (these differ in how small the consonantal constriction is)

p. 32   "heterorganic": having different place of articulation

Questions

1. In Class 7 (OT II), we saw various ways that Pater's *NC̥ constraint could be satisfied: post-nasal voicing (Japanese, Quichua), denasalization (Magindanaw), stop deletion (Standard Malay), nasal deletion (Kelantan Malay). The constraint could also be freely violated, as in English. But we didn't see metathesis, vowel epenthesis, nasal devoicing, stop nasalization...
Assume that what we saw is a complete typology of humanly possible repairs for *NC̥ (unlikely, but assume it for purposes of argument).
Under Steriade's theory, this means that there are some ties in the P-map, but also some non-ties. Sketch out the relevant <u>fragment of the P-map</u>, and state the <u>default rankings</u> of correspondence constraints that would result.