Homework 9: Classical Greek, Sanskrit, and feature organization
Phonetics/Phonology
Due Tuesday March 29

Classical Greek has a three-way phonemic laryngeal distinction: voiced, voiceless unaspirated, and voiceless aspirated. These phonemic distinctions are neutralized in a certain environment. (Ignore any stem vowel alternations.)

Consider the stem-final consonants in the following data. Note: /-den/, /-t^hen/, /-tos/, /-teos/, etc., are all distinct underlying suffixes.

(1) Classical Greek:

Forms with suffixes beginning with V		Forms with suffixes beginning with C	
e-klap-en	'I was cheated'	kleb-den	'stealthily'
plek-o	'to plait'	pleg-den	'entwined'
t^hlib-o	'to squeeze'	te-t^hlip-tai	'has been squeezed'
		e-t^hlip^h-t^hen	'I was squeezed'
leg-o	'count'	lek-teos	'has been counted'
		lek^h-t^hesomai	'I will be counted'
strep^h-o	'to turn'	strep-tos	'turned'
lek^h-o	'lay to rest'	e-lek-to	'went to rest'
dok-e-o	'to seem'	e-dok^h-t^he	'it seemed'

Propose **and argue for** an organization of the relevant features that can help make sense of this process. Demonstrate how the assimilation works with feature geometry (as we did in class). Compare your proposal to the alternative we would be forced to assume without your proposal (i.e. make it clear what we gain from your proposed feature organization by comparing your proposed rule to a rule in the old formalism). Reflect on whether your feature organization would seem to be a reasonable one– why or why not?

Classical Sanskrit has a four-way phonemic laryngeal distinction (voiced unaspirated, voiceless unaspirated, voiced aspirated, and voiceless aspirated). We find an assimilation in Sanskrit that is summarized below, with outcomes of various coronal+labial sequences, but their place of articulation is not crucial.

(2) Sanskrit:

t + p	→	tp	t + b	→	db	d + b^h	→	db^h	d + b	→	db
t + p^h	→	tp^h	t + b^h	→	db^h	d + p^h	→	tp^h	d + p	→	tp

Characterize the assimilation in Sanskrit with a feature geometry representation (assuming the organization you argued for above with reference to the Classical Greek data), and compare the two rules you've created with feature geometry. Could the Greek rule be used for the Sanskrit?

Note: Be sure to use this opportunity (new structure (the feature tree) that we haven't fully explored/described yet) to argue for anything new you propose. To argue for something, you make clear why it's needed and what it allows us to capture.