

Problem Set #1: Ancient Greek

Due by Friday, Feb 8

Goal: Apply Clements & Keyser's syllable theory to the Ancient Greek data given below in order to answer the questions at the end of this handout.

Data and discussion

Kahn (1976) proposed that the consonant clusters that can begin a *word* are always the same as the consonant clusters that can begin any *syllable* in the word. However, linguists soon realized that this claim is not true universally. One language in which Kahn's claim has been shown to be false is the Attic (Athens-area) dialect of Ancient Greek.

In Attic Greek, there are two different kinds of word-initial clusters, illustrated in columns (a) vs. (b) in table (1). The difference is that the (a) clusters are possible syllable-initial clusters *inside* words too, but the (b) clusters are possible syllable-initial clusters only at the *beginning* of a word.

(1) Word-initial clusters

Note: In the transcription system used here, a macron (line) over a vowel indicates that the vowel is long.

(a) krāsis	‘mixture’	(b) gnōmē	‘judgment’
kleptō	‘to steal’	dnop ^h os	‘darkness’
k ^h lōros	‘green’	glukus	‘sweet’
kneph ^h as	‘darkness’	mnemon	‘mindful’
k ^h noē	‘joint’	smēk ^h ō	‘to wipe clean’
k ^h reos	‘debt’	skaptō	‘to dig’
grap ^h ō	‘write’	splaŋk ^h na	‘innards’
		spanios	‘rare’
		sklēros	‘hard’
		sp ^h rāgis	‘seal’
tmetos	‘cut’	stadion	‘race-course’
t ^h nēsko	‘to die’	stratos	‘army’
tlaō	‘to endure’	stleŋgis	‘scraper’
t ^h lao	‘crush’	sknipos	‘dim-sighted’
t ^h riks	‘hair’	zdugon	‘yoke’
trepo	‘turn’	zbennumi	‘quench’
drūs	‘oak’	psauō	‘to touch’
		ktēnō	‘to kill’
prassō	‘achieve’	k ^h t ^h es	‘yesterday’
p ^h rēn	‘heart’	ksenos	‘stranger’
plekō	‘weave’	ptuttō	‘to spit’
p ^h legō	‘burn’	p ^h t ^h ērō	‘destroy’
pneō	‘to breathe’	bdeluros	‘disgusting’
brotos	‘mortal’	blabō	‘harm’

How do we know that the (a) clusters are syllable-initial clusters inside words but the (b) clusters are not? Some of the strongest evidence comes from Ancient Greek poetic conventions. In 5th century Attic Greek (represented by, for example, the comedies of Aristophanes), scholars have identified a phenomenon they call *Correptio Attica* ("Attic Shortening"). To make a long story short, the way that Aristophanes and his contemporaries select words to use in particular positions in the lines of their poetry shows us that the type (a) clusters are syllabified together, as onsets, when intervocalic (so *mikron* is *mi.kron*, with a "short" first syllable, not **mik.ron*; hence the term "shortening"). But type (b) clusters do not participate in *Correptio Attica*, so we conclude that they do not form an onset cluster: *hes.pera*, not **he.spera*.

Together with other evidence, this means that word-internal clusters are syllabified as illustrated by the following examples:

(2) **Clusters in word-internal syllables**

(a) mi.kron	‘small’	(b) ok.tō	‘eight’
pa.tri	‘father’	skep.sis	‘consideration’
kata.klausantes	‘crying’	Al.kmēnē	<i>name</i>
Oia.gros	<i>name</i>	hag.nos	‘holy’
		ked.nos	‘careful’
		Agamem.non	<i>name</i>
		Klytaim.nes.tra	<i>name</i>
		as.tron	‘star’
		des.mos	‘fitting’
		hes.pera	‘evening’

Questions

- List all the type (a) and (b) clusters that you see in the data in (1) and (2). Then try to state, in ordinary prose, the characteristics that a cluster must have to be a type (a) cluster. (Hint: Think about what we did for English at the beginning of the semester and do something similar. Be as general as you can; refer to natural classes when possible.)
- Use Clements & Keyser's theory to formalize the generalizations you made in question 1. That is, assume that the core syllabification rules for Ancient Greek only produce type (a) clusters, and set up a C&K-type analysis for Greek that will correctly allow only type (a) clusters. (We can say that the word-initial type (b) clusters are formed by a special "adjunction rule" that allows an unsyllabified consonant to join a syllable if it is word-initial; you don't have to worry about this part).
 - ▶ State the maximal syllable for this language, defined in terms of C and V elements.
 - ▶ State any positive and/or negative syllable structure conditions that you need in order to correctly distinguish between possible (=type (a)) and impossible clusters. You can refer to Clements & Keyser's discussion of English clusters as an example of how this can be done.
 - ▶ Include a discussion section where you show how your maximal syllable and PSSCs and/or NSSCs work for actual examples from the data set: Choose about three examples each of type (a) and (b) clusters (choose examples that are interestingly different from each other). Show that your system correctly syllabifies the type (a) clusters and does not syllabify the type (b) clusters.