HOMEWORK SHEET: LING1111

Session 8 - Phonology I: Phonemic Analysis

Exercise 3 (Homework)

Upload the solutions to Canvas

Consider the following data based on Chatino, a language of Mexico. This language contains voiced and voiceless vowels. (Voiceless vowels sound "whispery.") Voiceless vowels are indicated with a small circle under the vowel (like voiceless liquids and glides), e.g., [ḁ] , [u̥]. The data have been modified to simplify this problem. Assume phonetic transcription. Consider [ʔ] to be a voiceless glottal stop (a consonant).

a	kḁta	*you will bahte*	j	siju	*juice*
b	ki̥ʔ	*fire*	k	sula	*open*
c	ku̥su̥ʔwa	*you will send*	l	tije	*stomach*
d	se̥ʔe	*place*	m	laʔa	*side*
e	ʃi̥ʔɪ	*sad*	n	loʔo	*where*
f	tḁʔa	*fiesta*	o	ndiki	*you are burning*
g	ti̥hi	*water*	p	ŋguʃi	*tomato*
h	tu̥ʔwa	*mouth*	q	ki̥su	*avocado*
i	kino	*sandal*	r	hḁʔ	*grass mat*

Question 1: For each of the following pairs of vowels, offer an analysis to support either separate phonemes or allophones of the same phoneme: [u̥] and [u]; [i̥] and [i]; [ḁ] and [a].

Question 2: Knowing what we know about sounds behaving as a natural class, what can we suggest about [e̥] and [e]? Then, write a rule using prose that describes what is happening in this language with respect to these sounds (use natural classes if possible). Also, what articulatory process seems to be at work here? (That is, can we support our analysis in 1 with phonetic-based motivations?)

Question 3: Now, support your above analysis in Q1 by showing how an alternative hypothesis is less elegant. (Try to offer alternative formulation of the data and demonstrate why it is a less preferable) Remember that analyses should be elegant, which means as simple as possible but including all the necessary information to account for the data.