Assignment 7: Chatino phonemic analysis

mazunki

Source word list

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

Question 1

To analyse each phoneme/allophone, I've taken each appearance of the sounds with its surrounding phonemic units, and sorted them alphabetically.

[i] vs [i̥]

- dik

- hi#
- ki#
- kin
- ki̥s
- ki̥ʔ
- sij
- tij
- ti̥h
- ʃi#
- ʃi̥ʔ

There doesn't seem to be any matching pairs here, so we could assume the difference is merely contextual. That said, we can observe how voiceless [i̥]

sounds appear prior to voiceless sounds in all cases except ndiki. When a voiced phoneme follows, the vowel is also voiced.

[u̬] vs [u]

- guʃ
- ju#
- ku̬s
- su#
- sul
- su̬ʔ
- tu̬ʔ

Once again, there are no matching pairs here, so I would assume the difference is merely allophonic.

[a̬] vs [a]

- ha̬ʔ
- ka̬t
- la#
- laʔ
- ta#
- ta̬ʔ
- wa#
- wa#
- ʔa#
- ʔa#

There are no matching pairs here either, but we do see some repetitions, and in this case we can see the voicedness appears only when either side of the sound is voiced. Also, interestingly, we now have some repetitions.

Question 2

From the observations we've made, it seems like the vowels in Chatino share the voicedness of the surrounding phonemes, meaning the phonemic difference is completely allophonic.

That is, if either the preceding or the successive phoneme is voiced, the vowel becomes voiced too. Furthermore, vowels at the end of words seem to be unconditionally voiced, too.

Question 3

If the phonemic variation were meaningful, we would have to find some example pair of words where only the voicedness of the vowel varied. The data set we have is limited, so it could be merely chance, although unless the dataset is biased I would have a hard time believing 18 words had no cases of voiceless vowels between voiced consonants, and no cases of voiced vowels between fricatives.

Other than faith, I'm not sure what alternative, more complex hypothesis (other than listing out all the combinations in the dataset) there could be. Maybe I'm missing the obvious.