

Phonology Assignment #3

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1 Swahili

1.1 Part A

These phonemes have a predictable distribution; they are allophones.

[ɔ] appears before nasals. [o] appears everywhere else.

1.2 Part B

1. *[o][+nas] and *[ɔ]
2. The first constraint prohibits [o] before nasals, while the second constraint prohibits [ɔ] in all contexts.
3. I chose to make the contextual constraint involve the distribution of [ɔ] (which it does by implying that [ɔ] must appear in front of nasals to take the place of [o], which the constraint prohibits appearing there) because it appears in a much narrower variety of situations, whereas [o] appears in a much broader array of contexts.
4. *[o][+nas] >> *[ɔ]
5. This ranking means that for the most part we won't see [ɔ], *except* for when it is in front of a nasal, because this is the only situation in which the first constraint overrides the second constraint. When this happens, since [o] cannot appear, we must expect to see [ɔ]. Otherwise, the second constraint will hold, and we will not see [ɔ].

2 O'odham

2.1 Part A

[±voice] does not appear to be predictable in O'odham; it is contrastive.

There are several examples of contexts in which both [+voice] and [-voice] phonemes (of the set in question) have been observed:

- # ___ u
- # ___ a
- u ___ #
- # ___ o (if we ignore vowel length, which I think we can do safely since it does not seem to be in any way related to the voicing of these phonemes)

Furthermore, there appears to be no pattern or predictability to the voicing of these phonemes. Voiced and voiceless versions can appear both at the beginning and end of words, and do not appear to be conditioned on any class of vowel or consonant.

2.2 Part B

[±anterior] appears to be predictable in O’odham; [+anterior] and [-anterior] phonemes of the set in question are allophonic.

[-ant] phonemes of the set appear before high vowels, while [+ant] phonemes of the set appear everywhere else.

1. *[+ant][+high,-cons] and *[-ant]
2. The first constraint prohibits [+ant] phonemes of the set before high vowels, while the second constraint prohibits [-ant] phonemes of the set in all contexts.
3. I chose for the contextual constraint to define the distribution of [-ant] phonemes of the set because these appear in a narrower range of contexts than [+ant] phonemes.
4. *[+ant][+high,-cons] >> *[-ant]
5. This ranking means that we usually won’t see [-ant] phonemes of the set. Only in situations where the phoneme precedes a high vowel will the first constraint override the second constraint, meaning that we should see a [-ant] phoneme.