Class 5
Phonology Exercises
9/26/19

Phonology exercises

- In each of the following data sets, the sounds in questions are *allophones of a single phoneme*.
- Write the phonological rules that derive the set of allophones.
- Identify which allophone we should choose to be the phoneme.

⋆ When doing phonology problems like this, you want to list out all the environments/contexts that each of the relevant sounds appears in, and then make generalizations over those environments.
  ○ Things about environments to look for: C's and V's, word boundaries (#_ & _#), phonological features

1 Spanish

- Consider the sounds [s] and [z] in the following data from Spanish.

(1)

1.	[izla]	'island'	8.	[rasko]	'I scratch'
2.	[riezgo]	'risk'	9.	[resto]	'remainder'
3.	[eski]	'ski'	10.	[fuersa]	'force'
4.	[siŋko]	'five'	11.	[vamos]	'we go'
5.	[dezde]	'since'	12.	[mizmo]	'same'
6.	[espalda]	'back'	13.	[fiskal]	'fiscal'
7.	[hablas]	'you speak'	14.	[sabes]	'you know'

2 German

- Consider the phones [g] and [ɣ] the following data from German.
  ○ [ɣ] is a voiced velar fricative.
  ○ [ç] is a voiceless palatal fricative.
  ○ [ø] is a mid front round tense vowel.

(2)

1.	[vaɣən]	'car'	10.	[zigən]	'conquer'
2.	[taɣə]	'days'	11.	[bərg]	'mountain'
3.	[naɣən]	'nibble'	12.	[føglam]	'bird'
4.	[taʊɣnəçts]	'idler'	13.	[møgən]	'can'
5.	[fuɣən]	'fit together'	14.	[regən]	'rain'
6.	[aʊɣən]	'eyes'	15.	[gɪngən]	'went'
7.	[boɣən]	'arch'	16.	[gangəs]	'Ganges'
8.	[zoɣən]	'crystallize'	17.	[ʊngarn]	'Hungary'
9.	[gəfloɣən]	'flown'	18.	[zɪgnal]	'signal'
			19.	[grɔk]	'grog'

3   Japanese

- Consider the sounds [ç], [h], and [ɸ] in the following data from Japanese.
  - ○ [ç] is a voiceless palatal fricative.
  - ○ [ɸ] is a voiceless bilabial fricative.

(3)

1.	[joho]	'forecast'	9.	[toɸu]	'tofu'
2.	[ɸuku]	'clothes'	10.	[hoʃi]	'star'
3.	[çito]	'person'	11.	[koçi]	'coffee'
4.	[hen]	'strange'	12.	[hako]	'box'
5.	[tehon]	'model'	13.	[ɸukai]	'deep'
6.	[saiɸu]	'wallet'	14.	[kuçi]	'waste'
7.	[ʃihai]	'control'	15.	[eɸu]	'letter F'
8.	[kiçin]	'grace'			