

Homework 2

Hindi. [b] and [β] are separate phonemes because they occur in the same environments, e.g. #_a, #_i.

Mokilese. (i) High vowels become voiceless between voiceless consonants.

$$(ii) \begin{bmatrix} + \text{ high} \\ + \text{ syll} \end{bmatrix} \rightarrow [- \text{ voice}] / [- \text{ voice}] _ [- \text{ voice}]$$

Swampy Cree. (i) [p] and [b] are allophones because they appear in complementary environments: [p] appears intervocalically, [b] elsewhere.

$$p \rightarrow [+ \text{ voice}] / V _ V$$

(ii) The same applies to the pairs [t d], [k g] and [tʃ dʒ].

$$t \rightarrow [+ \text{ voice}] / V _ V$$

$$k \rightarrow [+ \text{ voice}] / V _ V$$

$$tʃ \rightarrow [+ \text{ voice}] / V _ V$$

(iii) Stops and affricates are voiced intervocalically.

	k) 'hand'	m) 'axe'	o) 'tooth'
UR	/mitʃihtʃij/	/tʃi:kahikan/	/mi:pit/
Voicing	midʒihtʃij	tʃi:gahigan	mi:bit
Surface	[midʒihtʃij]	[tʃi:gahigan]	[mi:bit]

Persian. There is one phoneme [r] and three allophones [r r̥ r̄].

$$r \rightarrow r / V _ V$$

$$r \rightarrow r̥ / _ \#$$

The trill is the best choice as the underlying phoneme because it is the 'elsewhere' case.

Writing rules

(1) Write the following rules in words.

$$s \rightarrow \int / \left. \begin{matrix} r \\ u \\ k \\ i \end{matrix} \right\} _$$

$$[- \text{ cons}] \rightarrow [\alpha \text{ back}] / \begin{bmatrix} - \text{ cons} \\ \alpha \text{ back} \end{bmatrix} C_1 _$$

(2) Environments to pay attention to

- Immediate neighbors, including domains (e.g. word/syllable edge, onset/coda)
- Long distance: same type of segment (e.g. vowel, coronal, high/front vowel)

How rules interact

(3) Five possibilities

- No interaction* — The rules don't affect each other in any way
- A feeds B* — Rule A creates more environments where Rule B can apply
- X bleeds Y* — Rule A destroys environments where Rule B can apply
- A doesn't feed B* — because they're in the wrong order = *counterfeeding*
- X doesn't bleed Y* — because they're in the wrong order = *counterbleeding*

(4) Standard Spanish and Andalusian Spanish

- Write rules that account for the following data from two varieties of Spanish.
- Is the ordering important?

Spelling	(a) Standard	(b) Andalusian	Gloss
1. doy	[doj]	[doj]	'I give'
2. lado	[laðo]	[la:ɔ]	'side'
3. robledo	[roβleðo]	[roβle:ɔ]	'oak grove'
4. lindo	[lindo]	[lindo]	'pretty'
5. verdad	[berðað]	[be:ða:]	'truth'
6. arder	[arðer]	[a:ðe:]	'to burn (intransitive)'
7. verde	[berðe]	[be:ðe]	'green'
8. pecado	[pekaðo]	[peka:ɔ]	'sin'
9. anda	[anda]	[anda]	'he/she walks'
10. virtud	[birtuð]	[birtu:]	'virtue'
11. donde	[donde]	[donde]	'where'
12. florido	[floriðo]	[flori:ɔ]	'florid, robust'
13. conde	[konde]	[konde]	'count (aristocratic title)'
14. mercado	[merkaðo]	[me:ka:ɔ]	'market'