

PRACTICE EXERCISES

PHONOLOGICAL PROBLEMS AND PHONOLOGICAL RULES

1. SOUTH EAST AMBRYM (a Malayo-Polynesian language)

In the following problem, separate the possessive morpheme from the noun stems. Consider the resulting variation in these noun stems and account for it.

- a. What phonological process is illustrated here? Argue for your solution.
- b. Formulate a maximally general rule for the observed variation.

1. hil	<i>hair</i>	hilin	<i>his hair</i>
2. vaŋ	<i>belly</i>	vaŋen	<i>his belly</i>
3. luh	<i>tooth</i>	luhon	<i>his tooth</i>
4. asou	<i>wife</i>	asoun	<i>his wife</i>
5. he	<i>hand</i>	hen	<i>his hand</i>

2. Using feature notations, write rules for expressing the following phonological processes.

- a. A vowel becomes short when it occurs before a consonant word-finally, or before a consonant cluster.
- b. Word-final consonants are deleted after an unstressed vowel.

3. State in plain English what the following rules do.

$$\text{a. } \overset{\text{C}}{[-\text{sonorant}]} \rightarrow [\alpha \text{ voice}] / \text{_____} \overset{\text{C}}{\left[\begin{array}{l} -\text{sonorant} \\ \alpha \text{ voice} \end{array} \right]}$$

$$\text{b. } \text{V} \rightarrow [+stress] / \text{_____} \text{C}_0\#$$

$$\text{c. } \overset{\text{C}}{[+\text{sonorant}]} \rightarrow [+syllabic] / \text{C} \text{_____} \#$$

4. JAPANESE

Consider the sounds [t] and [tʃ] in Japanese and determine whether they are allophones of the same phoneme, or represent two different phonemes. If allophones, state the complementary distribution; if phonemes, state the contrast. Argue for your solution. What phonological process is illustrated here? If the two sounds are allophones, write a rule that accounts for their distribution using feature notation.

1. tatami *mat*
2. tegami *letter*
3. tʃitʃi *father*
4. shita *under*
5. tʃizu *map*
6. koto *fact*
7. utʃi *house*
8. te *hand*
9. degutʃi *exit*

5. For each segment, if you change the value of the feature indicated, what new segment will be derived?

	Old segment:	Feature to be changed:	New segment:
Example:	[b]	[voice]	[p]
a.	[z]	[anterior]	
b.	[ʌ]	[reduced]	
c.	[p]	[SG]	
d.	[l]	[tense]	
e.	[z]	[strident]	

6. HYPOTHETICAL LANGUAGE

Consider the sounds [s] and [z] and determine whether they are allophones of the same phoneme, or represent two different phonemes. If allophones, state the complementary distribution; if phonemes, state the contrast. Argue for your solution. What phonological process is illustrated here? If the two sounds are allophones, write a rule that accounts for their distribution using feature notation.

1. seri *finger*
2. idos *pot*
3. mosta *sky*
4. lize *top*
5. tuga *pain*
6. tiva *dog*
7. sozi *light*
8. mizas *loud*