

Homework: Underlying representations

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Answer clearly and concisely. All phonological rules should be in formal rule notation ($A \rightarrow B / C_D$). Due Monday, May 31.

African American English

In some dialects of African-American English, you will encounter alternations like the following. 4 points.

'him'	hĩ	'him of'	hĩm əv
'win'	wĩ	'win a'	wĩn ə
'king'	kĩ	'king of'	kĩŋ əv
'Sam'	sã	'Sam is'	sãm ɪz
'pan'	pã	'pan of'	pãn əv
'hang'	hã	'hang out'	hãŋ awt
'time'	tã	'time of'	tãm əv
'sign'	sã	'sign of'	sãn əv

1. What is the underlying form for each of the lexical words (nouns and verbs) above? (8 words)
2. Write a phonological rule to describe the sound changes that happen between the underlying form and the surface form. All the changes can be expressed with a single rule.

Sinhalese

The sounds [ᵐd] and [ᵐb] are prenasalized stops. For the purpose of this exercise, you can treat them as a type of nasal segment (i.e., assume they have the feature [+nasal]). 3 points.

Singular definite	Plural	Gloss
malə	mal	'flower'
potə	pot	'book'
mənikə	mənik	'gem'
gasə	gas	'tree'
gamə	gaŋ	'village'
kanə	kaŋ	'ear'
bimə	biŋ	'ground'
li ⁿ də	liŋ	'well'
a ^m bə	aŋ	'mango'
pa:ləmə	pa:ləŋ	'bridge'

1. Give the underlying form for each root in the words above (10 roots in all). What is the underlying form of the singular definite suffix?
2. Write a phonological rule to describe the changes that occur between the underlying form and the surface form.
3. Show the derivation of the words [bimə] and [biŋ], including the input, rule application, and output.

Yawelmani

The following table shows four forms of Yawelmani verbs. It is not important for this problem to know what the names of the verb forms mean; just assume each column involves a different suffix. 3 points.

Future passive	Passive aorist	Precative gerundial	Dubitative	Root gloss
xilnit	xilit	xilʔas	xilal	'to tangle'
maxnit	maxit	maxʔas	maxal	'to procure'
meknit	me:kit	mekʔas	me:kal	'to swallow'
sapnit	sa:pit	sapʔas	sa:pal	'to burn'
tannit	ta:nit	tanʔas	ta:nal	'to go'

1. Give the underlying representation of each morpheme in the words above (9 in all: 5 roots, 4 suffixes).
2. Write a single phonological rule to describe the changes that occur between the underlying form and the surface form.
3. The pattern of vowel length alternations is related to Yawelmani's constraints on syllable structure. Assume that all CC clusters are syllabified C.C. What type of syllable does this data show is not allowed in Yawelmani?