Midterm: Morphophonology

Introduction to Linguistics

Due: May 12, 2020 by 11.59p Central Time on Canvas

1   Sudanese Colloquial Arabic (30 points)

For this problem, identify and describe the alternation in the nouns for 'country' and 'girl'; then, determine each noun's underlying form. Write (a) rule(s) to account for the alternation, using the features given below. (Remember to describe each rule you posit in prose in addition to the formal statement of it with the notation used in class.)

(10 points) Underlying forms
(20 points) Rule(s) and explanation(s)

balat fihim	'a country understood'
balat xirib	'a country was ruined'
balat ħaarab	'a country fought'
balad malak	'a country owned'
balad wazzaʕ	'a country distributed'
balad ribiħ	'a country profited'
balad liʕib	'a country played'

bit faahma	'a knowledgeable girl'
bit xaamsa	'fifth girl'
bit ħilwa	'a beautiful girl'
bit laʔiima	'a wicked girl'
bit mardˤaana	'a sick girl'
bit wannaasa	'storyteller girl'

balas samħa	'a beautiful country'
balaʃ ʃaaf	'a country saw'
balaz ziʕil	'a country got angry'
baladʒ͡ dʒ͡aab	'a country brought'

biz zakiyya	'an intelligent girl'
bidʒ͡ dʒ͡amila	'beautiful girl'
bis samħa	'a beautiful girl'
biʃ ʃeena	'an ugly girl'

Features for phonemes of Sudanese Colloquial Arabic

	Voicing	Manner	Region	Sonorant
b	+voice	plosive	labial	-sonorant
f	-voice	fricative	labial	-sonorant
t	-voice	plosive	coronal	-sonorant
d	+voice	plosive	coronal	-sonorant
s	-voice	fricative	coronal	-sonorant
ʃ	-voice	fricative	coronal	-sonorant
z	+voice	fricative	coronal	-sonorant
d͡ʒ	+voice	affricate	coronal	-sonorant
k	-voice	plosive	back	-sonorant
g	+voice	plosive	back	-sonorant
x	-voice	fricative	back	-sonorant
ɣ	+voice	fricative	back	-sonorant
ħ	-voice	fricative	pharyngeal	-sonorant
ʕ	+voice	fricative	pharyngeal	-sonorant
m	+voice	nasal	labial	+sonorant
n	+voice	nasal	coronal	+sonorant
r	+voice	liquid	coronal	+sonorant
l	+voice	liquid	coronal	+sonorant
w	+voice	glide	labio-velar	+sonorant

2   Mongolian (30 points)

Examine the following Mongolian data. Note that [y] represents a high front rounded vowel, [ø] represents a mid front rounded vowel, and [x] represents a voiceless velar fricative. [:] represents a long vowel.

Gloss	*Stem*	*Future Imperative*
a. 'enter'	[or-]	[oro:roɪ]
b. 'go'	[jav]	[java:raɪ]
c. 'develop'	[xøgdʒ-]	[xøgdʒø:røɪ]
d. 'come'	[ir-]	[ire:reɪ]
e. 'do'	[xi:-]	[xi:ge:reɪ]
f. 'come out'	[gar-]	[gara:raɪ]
g. 'take'	[av-]	[ava:raɪ]
h. 'finish'	[byte:-]	[byte:ge:reɪ]
i. 'drink'	[y:-]	[y:gø:røɪ]
j. 'find out'	[ol-]	[olo:roɪ]
k. 'conquer'	[jal-]	[jala:raɪ]
l. 'finish'	[tøgsg-]	[tøgsgø:røɪ]
m. 'beat'	[dev-]	[deve:reɪ]
n. 'give'	[øg-]	[øgø:røɪ]
o. 'say'	[xel-]	[xele:reɪ]
p. 'become'	[bol-]	[bolo:roɪ]
q. 'write'	[bitʃ-]	[bitʃe:reɪ]

For simplicity, please use the following to refer to vowels and/or natural classes of vowels.

Vowel	Height	Backness	Rounding
i	+hi, -lo	-back	-round
y	+hi, -lo	-back	+round
e	-hi, -lo	-back	-round
ø	-hi, -lo	-back	+round
u	+hi, -lo	+back	+round
o	-hi, -lo	+back	+round
a	-hi, +lo	-back	-round

NB: Mongolian also has the dipthongs: /eɪ, oɪ, aɪ/. Vowel length (V:) is phonemic.

i. (6 points) What are the allomorphs of the Mongolian future imperative marker?

ii. (10 points) What environments condition the appearance of the different allomorphs?

iii. (6 points) What is a reasonable underlying form for the future imperative marker? Explain why.

iv. (8 points) Write a (morpho)phonemic rule or rules that describe the distribution of the allomorphs. This problem is tricky to formalize. To make sure you are describing the process and getting the correct output in the SR, **please write out these rules in prose** in addition to your notation. Fill in the sample derivations below with the URs and rules in order to check your rule(s).

	'go.fut.imp'	'come.fut.imp'	'do.fut.imp'	'beat.fut.imp'	'finish.fut.imp'
Underlying Forms →	/ /	/ /	/ /	/ /	/ /
Rules →					
Surface Forms	[java:raɪ]	[ire:reɪ]	[xi:ge:reɪ]	[deve:reɪ]	[byte:ge:reɪ]

3 Portuguese (40 points)

	m. sg.	m. pl.	f. sg.	f. pl.
'fire'	fogu	fɔgʊʃ		
'people'	povu	pɔvʊʃ		
'eye'	oʎu	ɔʎʊʃ		
'new'	novu	nɔvʊʃ	nɔvɐ	nɔvɐʃ
'dead'	mortu	mɔrtʊʃ	mɔrtɐ	mɔrtɐʃ
'famous'	famozu	famɔzʊʃ	famɔzɐ	famɔzɐʃ
'all'	todu	todʊʃ	todɐ	todɐʃ
'ninth'	nonu	nonʊʃ	nonɐ	nonɐʃ
'other'	owtru	owtrʊʃ	owtrɐ	owtrɐʃ

For simplicity, please use the following to refer to vowels and/or natural classes of vowels.

	HEIGHT	POSITION	TENSE
u	HIGH	BACK	+
ʊ	MID-HIGH	BACK	−
o	MID	BACK	+
ɔ	MID-LOW	BACK	−
a	LOW	CENTRAL	+
ɐ	MID-LOW	CENTRAL	−

i. (6 points) Identify the affixes for MASC, FEM, SG and PL. If there are alternations (allomorphs), then list all possible candidates for the underlying form — i.e. you do not need to state what you think is the underlying form.

MASC   →   _____ , _____

FEM   →   _____

SG   →   _____

PL   →   _____

ii. (6 points) For the alternation you see for the MASC affix, describe the alternation and state the context in which each of the alternants appears.

iii. (4 points) Is there one hypothesis for the underlying morpheme which seems **clearly** better than the other(s)? Please briefly explain your reasoning. (Hint: Don't overthink this. We are not trying to trick you.)

iv. (8 points) Choose one of the affixes to be the underlying form and the other to be an allomorph and write a phonological rule which derives the surface form from the underlying form. (It may be unclear which one to choose; don't worry about that choice because we are only looking to see that you can write an appropriate rule.)

v. (6 points) Now, for each root list the surface forms which occur.

root	surface form(s)
fire	_____
people	_____
eye	_____
new	_____
dead	_____
famous	_____
all	_____
ninth	_____
other	_____

vi. (10 points) You have all the relevant observations in front of you; it is now time to propose an analysis. Please perform an analysis of this data, one which consists of more than one rule (there is a single rule analysis, but take our word when we say that is not the most plausible analysis, so we will not consider it.) Show the derivations for the following forms of *famous, all, fire* and *other*. (Feel free to use your rule above **if** it works. It may be the case that it doesn't work, so feel free to not use it as well.)

	'fire.m.pl'	'all.m.pl'	'famous.m.sg'	'other.m.sg'
underlying forms here →	/ /	/ /	/ /	/ /
Rules here				
surface form	[foguʃ]	[toduʃ]	[famozu]	[owtru]

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