Midterm exam

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LING 20: Introduction to Linguistic Analysis
Due: 23:59, 8 February 2021

1 *6 points*

[fɔɹ itʃ ʌv ðə fɑlo͡wɪŋ sɛts ʌv sa͡wndz ste͡jt wɑt ɑɹtʰɪkʰjulətɔɹi pʰɹɑpʰəɹɹi ɔɹ kʰɑmbɪne͡jʃən ʌv pʰɹɑpʰəɹɹiz ðə sa͡wndz ɪn ðæt lɪst hæv ɪn kʰɑmən ðæt no͡w ʌðəɹ sa͡wnd ɪn stændɨɹd əmɛɹɪkʰən ɪŋlɪʃ ʃɛɹz]

a) [b], [m]

b) [i], [ɪ], [ɨ], [u], [ʊ]

c) [f], [θ], [s], [ʃ]

d) [ʊ], [ɔ], [ʌ]

2 *12 points*

Using the IPA, please transcribe the following words as they are pronounced in the audio file **"midterm-audio.m4a"**. You must use the IPA transcription system for English that we developed in class.

a) Sepulveda

b) La Cienega

c) Wilshire

d) Centinela

3 *9 points*

[pliz ʃo͡w ha͡w ðə sılæbıfıke͡jʃən ælgəɹıðəm sılæbıfa͡jz ðə fɑlo͡wıŋ wɛɹdz juzıŋ ðə tʃɹi no͡wte͡jʃən]

a) [kwɑɹəntin]

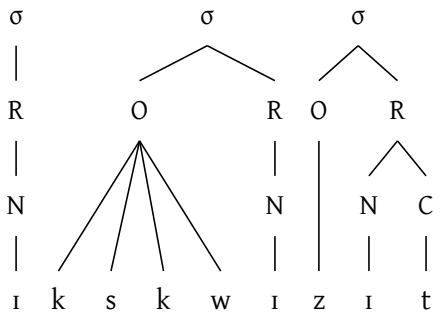
b) [ko͡wɑpəɹe͡jʃən]

c) [ælgəɹıðmık]

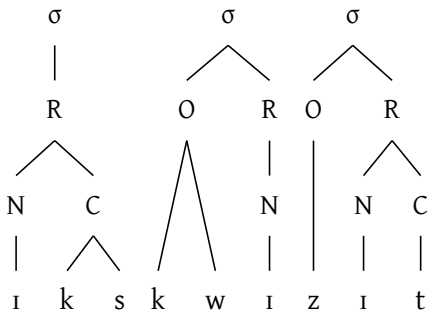
4 *6 points*

For most speakers of English, the word *exquisite* is syllabified as [ɪk.skwɪ.zɪt].

a) How does the syllabification algorithm explain why this word is not syllabified in the following way: [ɪ.kskwɪ.zɪt]? In other words, explain why the syllabification algorithm does not produce the following syllable structure (1–2 sentences)?



b) How does the syllabification algorithm explain why this word is not syllabified in the following way: [ɪks.kwɪ.zɪt]? In other words, explain why the syllabification algorithm does not produce the following syllable structure (1–2 sentences)?



5 *8 points*

For each of the sound pairs below, please indicate whether they are allophones of different phonemes in English by circling "yes" if they are and "no" if they are not. If you circle "yes", please write on the line that follows a minimal pair that shows this. Write this minimal pair in IPA.

	allophones of different phonemes?		
[pʰ] and [p]	*yes*	*no*	_____
[ɹ] and [l]	*yes*	*no*	_____
[ɛ] and [ʊ]	*yes*	*no*	_____

6 *4 points*

Consider the following German words.

[kʏçə]	'kitchen'	[mapə]	'folder'	[gɔlf]	'golf'
[gʊs]	'cast'	[asketɪʃ]	'ascetic'	[kʏsə]	'kisses'
[bakən]	'bake'	[ʃtɛkdozə]	'outlet'	[fʁa͡w]	'woman'

a) The data contain a minimal pair. Please state this minimal pair.

b) What does this minimal pair allow you to conclude about phonemes in German (1–2 sentences)?

7	*12 points*

The following data are from Narnian, a language spoken in the mythical world of Narnia. The sounds [v] and [β] are allophones of the same phoneme.

[puβu]	‘please’	[visi]	‘chocolate chip’
[terovit]	‘tell’	[kuβɒ]	‘ice cream’
[kivɒ]	‘me’	[mukʉβɒ]	‘is’
[tɛvæt]	‘why’	[møβy]	‘bright’
[møvæ]	‘mint’	[tove]	‘green’

a) State a generalization about when [v] and [β], respectively.

b) What phoneme are [v] and [β] allophones of?

c) State a phonotactic constraint that prohibits the underlying form in the right environments. Write this constraint using IPA symbols.

d) Now state this constraint using articulatory features instead of IPA symbols. The constraint must be a single statement (“It is not possible to have ...”) and must not involve disjunction (“X *or* Y”).

e) Based on this constraint, provide a rule that changes the underlying form in the right environments. Use IPA symbols in this rule.

f) Now formulate this rule using features instead of IPA symbols.

8 *6 points*

Let us consider two phonological rules in Fillorian, a language spoken in the mythical world of Fillory. The first rule changes / æ / to [ɑ] if it occurs at the end of a word.

(1) **Rule 1:**
Change / æ / to [ɑ] if it occurs word-finally.

(2) *Examples of rule 1:*
/ po͡wvæ / → [po͡wvɑ] 'cranberry'
/ ʃætræ / → [ʃætrɑ] 'kiwi'

The second rule changes an oral stop into a fricative if it precedes a front vowel.

(3) **Rule 2:**
Change / [+stop, −nasal] / to [−stop, +fricative] if it precedes [+vowel, +front]

(4) *Examples of rule 2:*
/ tupit / → [tuɸit] 'melon'
/ so͡wdæli / → [so͡wðæli] 'lychee'

Against this background, the underlying form / topæ / becomes [topɑ] in Fillorian. It cannot be *[toɸɑ].

a) Based on the underlying form / topæ /, what is the result that is produced if Rule 1 applies first, followed by Rule 2? Show the output of each rule.

Underlying form:	/ topæ /
Rule 1:	
Rule 2:	
Output:	

b) What happens if the two rules apply in the opposite order? Again, show the output of each rule.

Underlying form:	/ topæ /
Rule 2:	
Rule 1:	
Output:	

c) What is the relationship between the rules (no interaction, feeding or bleeding)? Briefly explain why (1–2 sentences).

9 *9 points*

Based on our set of morphological rules, please give the morphological structure(s) of the following words. If the morphological rules produce multiple structures, give all of them. Give all the grammatical-category labels that we can identify. Write the morphemes in IPA.

a) disengagement

b) unreadable

c) kindnesses

10 *4 points*

Consider the following compound words from Vietnamese.

(i)	*máy*	+	*lạnh*	→	*máy lạnh*
	‘machine’		‘cold’		‘fridge’
	(N)		(A)		(N)
(ii)	*bà*	+	*ngoại*	→	*bà ngoại*
	‘grandma’		‘maternal’		‘maternal grandma’
	(N)		(A)		(N)
(iii)	*phòng*	+	*ăn*	→	*phòng ăn*
	‘room’		‘eat’		‘dining room’
	(N)		(V)		(N)
(iv)	*bàn*	+	*ăn*	→	*bàn ăn*
	‘table’		‘eat’		‘dining table’
	(N)		(V)		(N)
(v)	*máy*	+	*giặt*	→	*máy giặt*
	‘machine’		‘wash’		‘washing machine’
	(N)		(V)		(N)

Judging from these examples, what morphological regularity of English does not hold in Vietnamese? Briefly explain why (1–2 sentences). What holds instead in Vietnamese?