

## Linguistics 20

## MIDTERM EXAM

May 7, 2018

THIS EXAM IS NOT TO BE ARCHIVED IN ANY TEST BANK

There are 12 pages, containing 7 questions for a total of 90 points, plus a 9-point bonus question. The number of points allotted to each question is indicated in the margin.

The last sheet, which you may tear off, contains phonological feature charts. Page 9 is blank, to be used for scratch work. If you want something on this page to be graded, indicate this clearly.

- 26 1. Multiple choice: Circle the letter next to the **best** answer.
- A. In English, [k<sup>h</sup>] and [k] are
- always produced with a following puff of air
  - always unreleased
  - never phonetically similar
  - always contrastive
  - never in contrast
- B. The principle of Onset Maximization requires that
- all consonants occur at the beginning of a syllable
  - a stop be released as soon as possible
  - an onset contain as many segments as possible
  - the vocal cords begin vibrating as soon as possible
  - a word begin with a consonant whenever possible
- C. Which of the following words is **not** footed correctly, given the stresses?
- (,Ala)('bama)
  - ('Mi)chi(,gan)
  - Con('necticut)
  - (,Tenne)( 'ssee)
  - Lou(,isi)( 'ana)
- D. Phonemic transcription differs from phonetic transcription in that phonemic transcription
- omits those features that have cross-linguistic relevance
  - omits those features that are predictable
  - includes only those features that are in complementary distribution
  - includes those features that are in free variation
  - includes only those features that are phonetically irrelevant

#	POINTS
1	23
2	14.5
3	10
4	6
5	10
6	3
7	6
8	7
Total 79.5	
91 %	

Instructor Use Only

E. What feature does **not** distinguish the sounds [æ] and [u]?

- a) [high]
- b) [low]
- c) [back]
- d) [tense]
- e) none of the above

F. Expletive infixation in English

- a) must occur between two feet
- b) must follow a stressed syllable
- c) must occur within a foot
- d) is learned by a prescriptive rule
- e) violates the prohibition on splitting infinitives

G. Flapping in English

- a) can only apply within an iambic foot
- b) cannot apply within a metrical foot
- c) can never occur following an unstressed vowel
- > d) can apply to /t/ and /d/ whenever they occur between vowels
- >  e) can apply when the surrounding vowels are in the same foot

H. According to our theory of syllabification, which of the following English words is **not** syllabified correctly? (A dot indicates a syllable boundary.)

- a) /dɪ.klajn/
- b) /ɛk.stɪækt/
- c) /pɑɪ.tek/
- d) /mɑn.stɪəs/
- e) /kɒnf.juz/

I. What feature distinguishes the sounds [ŋ] and [l]?

- a) [continuant]
- b) [sonorant]
- c) [syllabic]
- d) [strident]
- e) [voice]

J. Which statement is correct?

- a) an allophone is one possible realization of a phoneme
- b) an allophone can belong to more than one phoneme
- c) a phoneme does not need to have more than one allophone
- d) all of the above
- e) none of the above

K. In dialects that have it, Canadian Raising

- a) changes a segment from [-high] to [+high]
- b) is triggered by a following voiced consonant
- c) is triggered by a following voiceless obstruent
- d) affects all English major diphthongs
- e) changes a segment from [-back] to [+back]

L. Which of the following is **not** correct?

- a) labial sounds are made using one or both lips
- b) velar sounds are made at or near the dorsal fin
- c) alveolar sounds are made at or near the ridge behind the upper front teeth
- d) dental sounds are made using the teeth
- e) glottal sounds are made using the vocal cords as primary articulators

M. The process by which vowels are nasalized in English is an example of

- a) progressive assimilation
- b) regressive assimilation
- c) progressive dissimilation
- d) regressive dissimilation
- e) metathesis

→ N. Which of the following transcriptions is correct for (North American) English?

- a) *salad*            ['sæld]
- b) *June*            ['jun]    [j̃un]
- c) *bake*            ['bek]    [beɪk]
- d) *cinnamon*        ['sɪnəmɒn]
- e) *watermelon*      ['wɑ:ə,melɒn]

O. A minimal pair of words provides evidence for

- a) phonetic similarity
- b) complementary distribution
- c) lack of contrast
- d) free variation
- e) phonemic contrast

→ P. Which of the following pairs of sounds could **not** be allophones of the same phoneme in any language?

- a) [k, ʔ]
- b) [t, tʃ]    coronal
- c) [ð, ʒ]    coronal
- d) [v, w]    labial
- e) [h, m]

Q. Which of the following statements is **false**? In English,

- a) all low vowels are unrounded
- b) no [-back] vowels are [+round]
- c) all [+round] vowels are [+back]
- d) all [+back] vowels are [+round]
- e) all central vowels are unrounded

R. The sounds [h] and [ŋ] in English

- a) are allophones of the same phoneme because they do not contrast
- b) belong to separate phonemes because they contrast
- c) belong to the same phoneme because they occur in minimal pairs
- d) are not allophones of the same phoneme because they are not phonetically similar
- e) belong to separate phonemes because they are in complementary distribution

S. Which of the following features is **not** contrastive for vowels in English?

- a) [±high]
- b) [±tense]
- c) [±back]
- d) [±nasal]
- e) [±low]

T. Which of the following sets of sounds does **not** constitute a natural class in English?

- a) [l j ɹ w]
- b) [e ʌ ɔ ε o ø]
- c) [v ð ʒ]
- d) [ʒ z ʒ]
- e) [p<sup>h</sup> h k<sup>h</sup> t<sup>h</sup>]

→ U. Which of the following sets of sounds constitutes a natural class in English?

- a) [l n ɹ ŋ]
- b) [v z ʃ f ʒ s]
- c) [ɔ ʌ ə ε æ e]
- d) [ʒ ʒ ʃ ʃ j]
- e) [i w u j ʊ ʌ ɪ]

V. Which statement is **false**? Allophonic rules

- a) apply to newly-invented words
- b) apply only to a memorized list of words
- c) are part of our tacit knowledge of language
- d) encode predictable information
- e) reduce the amount of information that needs to be stored in the mental dictionary

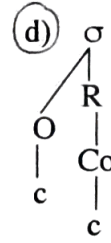
W. Which of the following transcriptions is **not** correct for (North American) English?

- a) *dogs* /'dɔgz/
- b) *elephant* /'eləfənt/
- c) *giraffe* /dʒə'ɪæf/
- d) *monkey* /'mʌŋki/
- e) *cat* /'k<sup>h</sup>æt/ no aspirations in phonemic

X. In English, a vowel is

- a) shortened after a voiceless liquids or nasals in the preceding onset
- b) lengthened before a voiced obstruent in the following coda
- c) shortened before a voiced stop in the following onset
- d) diphthongized before a voiceless sonorant in the same syllable
- e) lengthened before a voiceless obstruent in the same syllable

Y. Which of the following is **not** a possible syllable structure in any language? ("c" stands for any consonant, "v" for any vowel.)



need a v!

Z. Which of the following is **false**? A metrical foot

- x a) cannot contain more than one stressed syllable
- b) is called trochaic if its stress pattern is strong–weak
- c) is called dactylic if its stress pattern is strong–weak–weak
- x d) can contain two syllables in English
- e) is called pentameter if it contains five metrical toes



16 2. a) Transcribe each of the following English words **phonemically**. Mark primary stress. (If you're not certain what they sound like, an instructor will be happy to say them for you.)

representation /'rɛpɹɪzɛntɪtʃən/

phonetic /fə'netɪk/

stress  
nasalization  
aspiration  
syllabification  
flapping

b) Transcribe each of the following English words **phonetically**. Mark primary stress. (Again, we'll be happy to say them for you.)

transcription [tɹɪ'zɪŋ'kɹɪpʃən]

articulator [ɹɪ'dɪkju'leɪʃən]

- 10 3. The following are transcriptions of the names of some musicals playing this season on Broadway. Write the name of each in standard English spelling. (Some details have been omitted.) **They are all made up of ordinary words of English.**

[ðə fæntəm əv ði ɒpə] The Phantom of the Opera

[wɪkəd] Wicked

[kɪŋki bʊts] Kinky Boots

[ðə laɪŋ kɪŋ] The Lion King

[kʌm frəm əweɪ] Come From Away

[weɪtrəs] Waitress

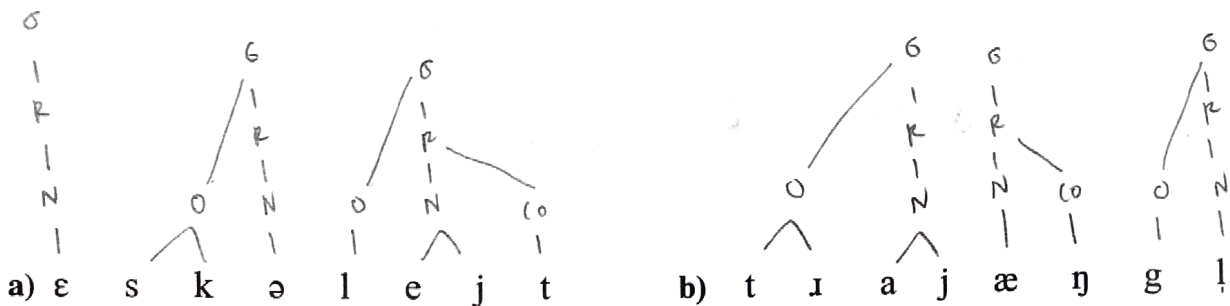
[skul əv ɹɒk] School of Rock

[ðə bændz vɪzɪt] The Band's Visit

[hed ɔvə hɪlz] Head Over Heels

[wʌns ən ðɪs aɪlənd] Once on This Island

- 6 4. Syllabify, i.e. draw the syllable structure for, each of the following English words:



- 11 5. Compare the careful speech and rapid speech pronunciations of the following English words and phrases. For each item, name the process that has applied to the careful form to produce the rapid form. **Be as specific as possible—specify the property that is changed by assimilation and dissimilation; specify the direction of assimilation when possible.** You do **not** need to identify the segments involved. (Irrelevant phonetic details have been omitted.)

	<u>Careful speech</u>	<u>Rapid speech</u>	<u>Process</u>
a) in Cuba	[ɪn kjuːbə]	[ɪŋ kjuːbə]	<u>place assimilation, regressive</u>
→ b) without	<sup>[-voice]</sup> [wɪθaʊt]	<sup>[+voice]</sup> [wɪðaʊt]	<u>voicing assimilation, progressive</u>
c) basked	[bæskt]	[bækst]	<u>metathesis</u>
d) let it	[let ɪt]	[lət ɪt]	<u>flapping assimilation</u>
→ e) receive	[ɪˈsiːv]	[ɪəˈsɪv]	<u>vowel reduction</u>
f) nationalize	[næʃənəlaɪz]	[næʃnəlaɪz]	<u>deletion</u>
g) warmth	[wɔːɪmθ]	[wɔːɪmpθ]	<u>epenthesis</u>
h) sixths	[sɪksθs]	[sɪksts]	<u>dissimilation, devoicing -l</u>

13 6. The following are transcriptions of some words of Slovak (spoken in Slovakia). ([x] is a voiceless velar fricative; [j] indicates palatalization on the previous sound, which you can ignore; whether [a] is central or back is irrelevant.)

- |                        |                                      |                           |
|------------------------|--------------------------------------|---------------------------|
| 1. [vatra] 'camp fire' | 6. [frkatʲ] 'to spatter'             | 13. [splaw] 'sluice-gate' |
| 2. [vedro] 'bucket'    | 7. [diftɛ:rija] 'diphtheria'         | 14. [na:zow] 'title'      |
| 3. [vr̩x] 'top'        | 8. [filozof] 'philosopher'           | 15. [pɾw] 'first'         |
| 4. [ʃfervi] 'worms'    | 9. [fa:dni] 'monotonous'             | 16. [kriwka] 'curve'      |
| 5. [vdova] 'widow'     | 10. [dofajtʃitʲ] 'to finish smoking' |                           |
|                        | 11. [feltʃjar] 'healer'              |                           |
|                        | 12. [nafta] 'gas'                    |                           |

a) Study the distribution of the sounds [f], [v] and [w]. How many different phonemes do these sounds belong to: one, two, or three? (Make sure that in parts b and c below you answer, for each possible pairing of these sounds, whether they are allophones of the same phoneme or belong to separate phonemes.)

one phoneme

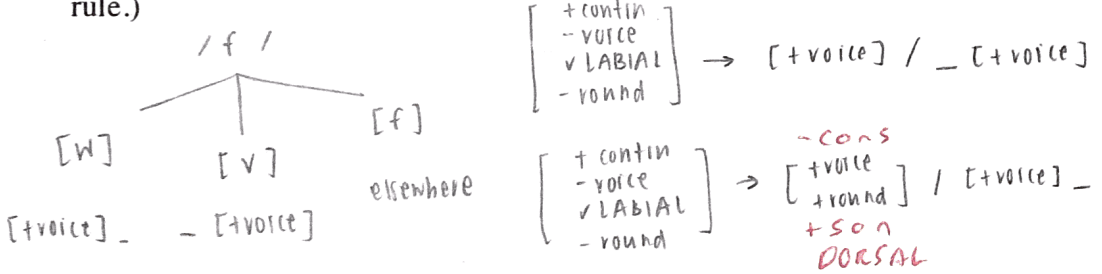
b) If you conclude that two or three of them are allophones of the same phoneme, i) state why you arrived at this conclusion, i.e. present the evidence for it.

[f]:	[v]:	[w]:
a_t #_r i_t #_i o_# #_a o_a #_e	#_a #_e #_r r_i #_d o_a	a_# o_# r_# i_k

[f] [v] and [w] all belong to the same phoneme. While there is some overlap in the environments between the 3, there is not enough evidence to prove the existence of minimal or near-minimal pairs.

1/6

ii) choose an underlying (phonemic) form and write one or two formal rules using distinctive features to derive the other allophone(s). (Do not use any IPA symbols in the rule.)



2  
3

c) For each pair of these sounds that you conclude belong to separate phonemes (if any), provide the evidence needed to make this conclusion as strong as possible.

not applicable

0/4

This doesn't work, but rules are mostly ok



8 7. Consider the following data from Ewe, spoken in Ghana, Togo and Benin. ([x] is a voiceless velar fricative; [β] is a voiced bilabial fricative; whether [a] is central or back is irrelevant.)

- |            |                 |              |                |
|------------|-----------------|--------------|----------------|
| 1. [dru]   | 'to be bent'    | 9. [fle]     | 'to pluck'     |
| 2. [wlu]   | 'to dig'        | 10. [srõ]    | 'wife'         |
| 3. [dzre]  | 'to quarrel'    | 11. [ŋlɔ]    | 'to writte'    |
| 4. [lãkle] | 'leopard'       | 12. [atra]   | 'mangrove'     |
| 5. [blema] | 'formerly'      | 13. [βla]    | 'suddenly'     |
| 6. [zrõ]   | 'to be smooth'  | 14. [xlolo:] | 'rough'        |
| 7. [lõ]    | 'to love'       | 15. [tsro]   | 'bark of tree' |
| 8. [hle]   | 'to spread out' | 16. [adoglo] | 'lizard'       |

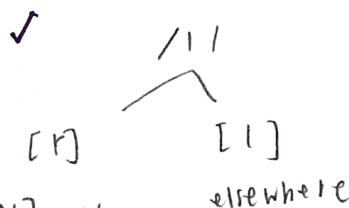
Study the distribution of [l] and [r]. State whether these two sounds are allophones of the same phoneme or belong to separate phonemes. If you decide that they belong to separate phonemes, provide the evidence needed to make this conclusion as strong as possible. If you decide that they are allophones of a single phoneme, explain why, identify an underlying form for the phoneme, and write a formal rule **using distinctive features** to derive the other allophone. (Do not use any IPA symbols in the rule.) Assume [r] has the same features as English [r].

(2)

- |      |      |
|------|------|
| [l]: | [r]: |
| w-u  | d-u  |
| #-ã  | z-e  |
| k-e  | z-õ  |
| b-e  | s-õ  |
| #-õ  | t-a  |
| h-e  | s-o  |
| f-e  |      |
| ŋ-o  |      |
| β-a  |      |
| x-o  |      |
| o-o  |      |
| ɔ-o  |      |

(CORONAL)

✓ Allophones of the same phoneme since they don't appear in the same environment



[CORONAL] - V

✓

$\left[ \begin{matrix} +\text{cons} \\ +\text{son} \\ -\text{nas} \\ +\text{lat} \end{matrix} \right] \rightarrow [-\text{lat}] / [\text{CORONAL}] - \text{V}$

**BONUS QUESTION: DO NOT LOOK AT THIS QUESTION UNTIL YOU HAVE DONE YOUR BEST TO ANSWER ALL OTHER PARTS OF THE EXAM! You may earn up to nine bonus points.**

- 9 8. Consider the following data from English as spoken by a young child. (You could just as well treat it as an exotic dialect.) The first set of examples illustrate one phonological rule of this child's pronunciation (irrelevant phonetic details are not indicated). Assume the child has the same underlying representations as adult English, as given:

English spelling	Underlying Representation	Child's Phonetic Representation
walks	/waks/	[wakt]
mans	/mænz/	[mænd]
takes	/teks/	[tekt]
zoo	/zu/	[du]
sad	/sæd/	[tæd]

- a) Write one formal rule using distinctive features to derive the child's pronunciations from the underlying representations. Do not use any IPA symbols in your rule.

$$\left[ \begin{array}{l} -\text{son} \\ +\text{contin} \\ \text{CORONAL} \\ +\text{anterior} \\ -\text{strident} \end{array} \right] \rightarrow \left[ \begin{array}{l} -\text{contin} \\ -\text{strident} \end{array} \right] / \text{all environments}$$

Now consider the following set of data:

English spelling	Underlying Representation	Child's Phonetic Representation
puppy	/pʌpi/	[pʌʔi]
took	/tʊk/	[tʊk]
kick	/kɪk/	[kɪʔ]
baby	/bebi/	[beʔi]
pet	/pet/	[pet]
toot	/tut/	[tuʔ]
daddy	/dædi/	[dæʔi]
kid	/kɪd/	[kɪd]
cake	/kek/	[keʔ]
paper	/pepə/	[peʔə]
tag	/tæg/	[tæg]
did	/dɪd/	[dɪʔ]

- b) A second rule is needed to derive these pronunciations from their underlying representations. State this rule precisely in words. Refer to natural classes, not lists of sounds.

stops become glottal stops when the same stop precedes the vowel that precedes the stop; when the word is of the pattern (stop)(vowel)(same stop), the second stop becomes a

- c) What phonological process is this an example of? glottal stop.

deletion

[continues next page]

Finally consider the following forms:

English spelling	Underlying Representation	Child's Phonetic Representation
does	/dʌz/	[dʌd]
suit	/sut/	[tut]

d) These forms can be derived using the two rules that derive the words in parts a) and b) above. (If the rules you have written don't work, you may have to go back and modify them to make this possible.) Do the two rules need to be ordered?

(Circle one:)  YES  NO

Give evidence to justify your answer, in the form of a pair of derivations for one of the words in this last group.

3	UR	/dʌz/	/sut/	vs.	UR	/dʌz/	/sut/
	①	dʌd	tʌt		②	-	-
	②	dʌz	tʌz		①	dʌd	tʌt
	SR	[dʌz]	[tʌz]		SR	[dʌd]	[tʌt]
	x	x		✓	✓		

The second rule should be implemented before  
the first rule