

Midterm Practice

Question 1: Consider the distribution of [b] and [ɓ] in Hindi.

Determine whether these sounds are allophones of one phoneme or allophones of separate phonemes. Draw the relevant allophone/phoneme diagrams and write any necessary phonological rules. You should use features in the right hand side of any rules you write, and in any environments in the diagrams.

- [bara] “large”
- [bina] “without”
- [ɓɛd] “disagreement”
- [bori] “sackcloth”
- [ɓari] “heavy”
- [ɓir] “crowd”
- [bais] “twenty-two”
- [ɓəs] “buffalo”
- [bap] “father”
- [ɓag] “part”

Question 2: Consider the distribution of [x] and [xʲ] in Modern Greek.

Determine whether these sounds are allophones of one phoneme or allophones of separate phonemes. Draw the relevant allophone/phoneme diagrams and write any necessary phonological rules. You should use features in the right hand side of any rules you write, and in any environments in the diagrams.

- [xano] “lose”
- [xʲino] “pour”
- [xufta] “handful”
- [xʲeli] “eel”
- [xori] “dances”
- [xrima] “money”
- [xali] “candle”
- [oxʲi] “no”

Question 3: Consider the distribution of [t] and [s] in Tongan. Determine whether these sounds are allophones of one phoneme or allophones of separate phonemes. Draw the relevant allophone/phoneme diagrams and write any necessary phonological rules. You should use features in the right hand side of any rules you write, and in any environments in the diagrams.

- [fata] “shelf”
- [motu] “island”
- [motomoto] “unripe”
- [movete] “to come apart”
- [sisi] “grand”
- [mosimosi] “to drizzle”
- [fesi] “to break”

Question 4: Translate the following phonological rules into regular English.

Tip: You’ll need to look at the IPA chart to figure out what some of the symbols mean.

Example: /h/ → [h̥] / V__V

The phoneme /h/ becomes voiced when it occurs between vowels.

- a. /n/ → [n̥] / __[-voice]
- b. [+syllabic] → [+nasal] / [+nasal, -syllabic]__
- c. [+continuant, -syllabic] → [-continuant] / __#
- d. /t/ → [t^w] / __[+close, +back, +round]

Question 5: Vowel nasalization in English

Part A: Consider the distribution of nasalized and non-nasalized vowels in English. Determine whether these sounds are allophones of one phoneme or allophones of separate phonemes. Draw the relevant generalized allophone/phoneme diagrams and write any necessary phonological rules. You should use features in the right hand side of any rules you write, and in any environments in the diagrams. *Tip: Plot the environments of ALL the non-nasal vowels vs. nasal vowels ([V] vs. [Ṽ]) below, NOT the environments of specific vowels ([i] vs. [ĩ]). Also, don't forget that diphthongs count as one vowel, so if I've indicated nasalization over part of a diphthong, then the whole diphthong is nasalized.*

- [bãɛn] “ban”
- [mɛ̃n] “man”
- [sĩm] “seem”
- [mãnstəɹ] “monster”
- [ĩŋkɹɛdəbəl] “incredible”
- [mɛlow] “mellow”
- [ɪtəɹejt] “iterate”
- [fɛj̃n] “feign”
- [nɔw] “no”
- [θɹɪlĩŋ] “thrilling”

Part B: What does your rule from above predict for nasalization of vowels in the following word? Indicate which (if any) vowels this rule predicts to be nasalized by writing “Leonard” in narrow transcription.

/lɛnəd/ “Leonard”

Part C: Now take a look at nasal vowels vs. non-nasal vowels in the following data. (Note the actual narrow transcription of “Leonard” below.) Do these words contradict your prediction based on the data above? If so, formulate a new rule that can extend to this new data.

Tip: You may have to think about syllable position/structure.

- [lɛnəd] “Leonard”
- [lɪmãɪn] “linen”
- [ɹɪɔ̃wm] “Rome”
- [ɹɪɔwmæ̃ns] “romance”
- [ɹĩŋ] “ring”
- [ɹĩŋkəl] “wrinkle”
- [ɹĩŋĩŋ] “ringing”
- [kənɛkt] “connect”
- [lɪmɹɪ] “lemur”
- [ɪntɛl] “intel”
- [ɪnɹɪt] “inert”
- [fɛmɪmãɪn] “feminine”
- [tãj̃md] “timed”
- [ɛmpti] “empty”

Question 6: Applying phonological rules

Apply the two following phonological rules to the words listed below them. In other words, go from broad transcription to narrow transcription using JUST these two rules. *Note: these are made up rules for a made up language that's not English, but you should use the vowel chart that I provided for English to help you. To find the right symbols to use in the narrow transcription, see the "diacritics" portion of the full IPA chart.*

- a. [+nasal] → [-voice] / ___[-voice, +consonantal]
- b. [+front, +close] → [+advanced] / ___[-continuant]
 - a. /bãt/
 - b. /bɪt/
 - c. /bɪlt/
 - d. /bĩz/
 - e. /mĩtʃ/
 - f. /biŋd/
 - g. /sʊmp/

Question 7: List the English speech sounds that fall into the following natural classes.

- a. [+coronal, +sonorant]
- b. [+nasal, +labial]
- c. [+tense, -open]
- d. [+round, +tense, -close]
- e. [-labial, +sonorant, +continuant]
- f. [-close, -open]

Question 8: Transcription

Transcribe the following words in IPA and indicate where the main stress is. Next to each word, indicate how many speech sounds are in that word. (And don't forget about the very common sound in unstressed syllables, [ə]!) Note: On the exam, I'll be saying aloud some made up words for you to transcribe. We will practice this in class on review day.

- 'bully'
- 'Halloween'
- 'engross'
- 'midget'
- 'yesterday'

Question 9: Natural classes

Each of the following sets of sounds is a natural class. Figure out what that natural class is. You do not need to use features for all of the natural classes (e.g., saying something like "dentals" is fine), but you may need to appeal to a feature (e.g., [+continuant]) in order to state the particular natural class that you find.

- [u, ʊ, oɪ, oʊ, ʌ, ɛ, eɪ, ɪ, i, ə]
- [ʒ, dʒ]
- [tʃ, dʒ, r, p, b, m, t, d, n, k, g, ʔ, ŋ]
- [θ]
- [p, b, m, w, f, v]
- [m, ŋ]
- [m, n]
- [n, ŋ]

Question 10: Draw syllable structure trees for the following English words.

- a. [kəntempərəri] "contemporary" b. [mɪstri] "mystery" (fast speech)

Question 11: Syllable structure in other languages

Imagine we're in a made-up language - let's call it Martian. It has the same speech sounds as English does, but it has the following phonotactic constraints (instead of those observed in English):

- Maximum syllable size: (C)(C)V(C)
- Onsets: any consonant but except [+labial] consonants can be in an onset. Sequences of two consonants in an onset are limited to nasal plus plosive (in that order).
- Codas: any consonant but [ŋ] can be in a coda.

Draw the syllable structure for the following made-up words in Martian:

1. [ɪsneɟ] “dismay”
2. [enti] “empty”
3. [lɪŋɪn] “singing”
4. [lɑməl] “little”
5. [ɪɛŋkəntipi] “pen cap”

Question 12: Word structure

Draw word-structure trees for the following words. Write lexical entries for all of the morphemes in the words in (a) and (c).

a. unfairness

b. greediness

c. rebranded (verb)

d. overrated (adj)

e. multiculturalism

Question 13: Bontoc morphology

Take a look at the following data from Bontoc (Philippines).

- [fikas] “strong”
- [kilad] “red”
- [bato] “stone”
- [fusul] “enemy”
- [fumikas] “he is becoming strong”
- [kumilad] “he is becoming red”
- [bumato] “he is becoming stone”
- [fumusul] “he is becoming an enemy”

1. List all the Bontoc morphemes you can find.

2. What word-formation process is taking place in this data?

3. If *pumusi* means ‘he is becoming poor’, what is the morpheme that means ‘poor’?

4. If *nitad* means ‘dark’, what is the Bontoc word for ‘he is becoming dark’?

Question 14: Turkish morphology

Take a look at the following data from Turkish.

- [lokanta] “a restaurant”
- [kapi] “a door”
- [randevu] “an appointment”
- [kitap] “a book”
- [koltuk] “an armchair”
- [taraf] “a side”
- [lokantada] “in/at a restaurant”
- [kapida] “in/at a door”
- [randevuda] “in/at an appointment”
- [kitapta] “in/at a book”
- [koltukta] “in/at an armchair”
- [tarafta] “in/at a side”

What is the morpheme meaning ‘in/at’? Does it have multiple allomorphs? Is this surface or true allomorphy? What determines which allomorph shows up? If relevant, write a morphophonological rule. Note that there are multiple possible answers as to what precisely is conditioning the allomorphy. Give at least two different solutions.

Question 17: Typology

1. Which consonant is more common across the world's languages? [p] or [q]
2. Which consonant is more common across the world's languages? [ɹ] or [r]
3. Which vowel is more common across the world's languages? [æ] or [i]
4. Which vowel is more common across the world's languages? [y] or [u]
5. What syllable structure is more common across the world's languages? (C)VC or (C)V(C)
6. What syllable structure is more common across the world's languages? CV(C) or (C)V(C)