Announcements

• I’m assigning Part I from Homework #2 today. This part is due on Monday, Oct 1st, and is worth 30 points.
• The second part of Homework #2 will be assigned on Monday. It’ll be due a week after.
• Screening for The Writing Code? How about Tuesday Oct 2nd at 7pm?

Agenda

• Presentation and discussion about English spelling.
• Finish our discussion of consonants.
• Articulation of vowels.
• Transcription exercises.

Summary from last class

• Consonants are described on the basis of three parameters: place of articulation, manner of articulation, and voicing.
• So, describe the following English sounds: \( [f], [m], [\delta], [\z], [w] \)

Aspiration of voiceless stops

• In English, the voiceless stops are produced with an extra puff of air when occurring initially. Compare your pronunciation of the \([p], [t], \text{and} [k]\) sounds in both words in each of the following pair:
  - pan vs. span
  - tar vs. star
  - cool vs. school

Aspiration

• The voiceless stops in the first words are characterized as “aspirated” sounds, which distinguish them from the unaspirated voiceless stops that do not occur initially.
• In phonetic transcription, we indicate this difference in aspiration by superscripting the aspirated sound with \( [h] \), e.g., pit \([ph\text{it}]\); spit \([spit]\).
Ingressive pulmonic consonants

- The consonants we talked about so far are all produced by egressive pulmonic airstream.
- Ingressive pulmonic consonants are typically used for emotional effects.
  Examples: from Swedish and Scottish.

Nonpulmonic consonants

- Human languages also have consonants that are produced by nonpulmonic airstream, either glottically or velarically.
- Glottalic airstream gives us ejectives and implosives, whereas velaric airstream gives us clicks.

Articulatory sequence for an Ejective Velar Stop [k’]

Articulatory sequence for a Bilabial Implosive [ɓ]

Articulatory sequence of an Alveolar click [ǃ]

Peter Ladefoged’s sound files

- Ejectives in Lakhota
- Implosives in Sindhi
- Clicks in Xhosa
- Hear nonpulmonic sounds on the interactive IPA chart [HERE].
- For a non-linguist demonstrating and teaching clicks in Xhosa, you may watch this youtube video.
Vowels

• Vowels are distinguished from consonants in that the passage through which the air travels is never so narrow as to obstruct the free flow of the airstream.
• It’s hard, however, to characterize vowels according to the same features that we have used in characterizing consonants. Why?

Parameters for vowel articulation

• Therefore, to distinguish between different vowels, we rely on four other features:
  (a) Tongue height: High, Mid, and Low
  (b) Which part of the tongue is involved: Front, Central, and Back
  (c) Lip rounding: Rounded and Unrounded
  (d) Tenseness or laxness of the vocal tract: Tense and Lax

American English Vowel Chart

http://www.uiowa.edu/~acadtech/phonetics/

• Now visit this link again for the articulation of the vowels of American English (German and Spanish are also available if you like to check out these).
• Notice that there may be some slight differences between this link and your textbook concerning phonetic symbols, but it is a very useful link, particularly the animated diagrams.
Diphthongs
• Two vowels may combine together to form a diphthong. Examples of diphthongs in American English are given below:
  [ai] as in die  [au] as in now
  [oi] as in toy
• Note that the vowels in bait and boat are also typically pronounced as diphthongs, and are therefore frequently transcribed as [ei] and [ou], respectively.
• In many books, the second vowel of an English diphthong is frequently represented as a glide: [ej] or [ow].

Nasalization of vowels
• Vowels can be either oral or nasal.
• In English, nasal vowels typically occur before nasal consonants. Compare, for example, the vowel in bat and ban. In transcription, the diacritic [~] is placed over the vowel to indicate that it is a nasalized vowel, as in ban [bArn] and boom [bûm].

Transcription
• Phonetic transcription is a representation of the pronunciation of a word using IPA symbols. It is typically given between [ ].
• Transcription could be broad, in which case a minimal amount of phonetic detail is given, or narrow, in which case more detailed phonetic differences are provided (e.g., aspiration of voiceless stops and nasalization of vowels).
• The difference is illustrated on the next slide.

Broad vs. Narrow Phonetic Transcription

<table>
<thead>
<tr>
<th>Word</th>
<th>Broad Transcription</th>
<th>Narrow Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>[jenɹ]</td>
<td>[jenän]</td>
</tr>
<tr>
<td>?</td>
<td>[lkɹ] or [lkʃ]</td>
<td>[lkʃ] or [lkʃ]</td>
</tr>
<tr>
<td>?</td>
<td>[saʊndz]</td>
<td>[saʊndz]</td>
</tr>
<tr>
<td>?</td>
<td>[fæntəks]</td>
<td>[fæntəks]</td>
</tr>
<tr>
<td>?</td>
<td>[tʊŋ]</td>
<td>[tʊŋ]</td>
</tr>
</tbody>
</table>

Transcribing sentences

Broad:
[nɒm tʃæmski ɪz ə ɭɪŋwɪst hu tɪtʃɪz ət ɭem aɪ tı]

Narrow:
[nɒm tʃæmski ɪz ə ɭɪŋwɪst hu tʰɪtʃɪz ət ɭem aɪ tʰɪ]

Next class agenda
• Some examples of variation in pronunciation of American English.
• Coarticulation processes.
• Prosodic features: Syllable structure, pitch, tone, and intonation. Read Chapter 6, pp. 252-255, as well as the section on Prosodic Phonology in Chapter 7, pp. 296-302.