

LIGN 110 Section 25202 Week 4

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- Questions on lecture materials, quizzes, homework, final project?
- Reminder: Quiz Week 4 due on Oct. 29
- Sound files can be found under <https://yuanucsd.github.io/website/lign110fall2020.html>

Review of place of articulation

Labial, coronal, and dorsal sounds

	labial		coronal				dorsal					
	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal	
Plosive	p b		t d			ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ	
Nasal	m	ɱ	n			ɳ	ɲ	ŋ	ɴ			
Trill	ʙ		r						ʀ			
Tap or Flap		ɸ	ɾ			ɽ						
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ	
Lateral fricative			ɬ ɮ									
Approximant		ʋ	ɹ			ɻ	j	ɰ				
Lateral approximant			l			ɭ	ʎ	ʟ				

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

Review of place of articulation

Labial, coronal, and dorsal sounds

- Labial: bilabial, labiodental, (lingual-labials); involving one or both lips
- Coronal: Dental, Alveolar, Postalveolar, Retroflex
 - Alveolar sounds can become dental by adding dental diacritics e.g. [t̪]
 - Apical: produced with tongue tip e.g. voiceless apical-alveolar stop: [t̺]
 - Laminal: produced with tongue blade e.g. voiceless laminal-alveolar stop: [t̻]
 - There can be apical vs. laminal distinction in dental and alveolar position.
- Dorsal: Palatal, Velar, Uvular, Pharyngeal, Glottal

Review of place of articulation

Labial, coronal, and dorsal sounds

- Advanced tongue root: [t̟]
- Retracted tongue root: [t̠]

Review of place of articulation

Practicing non-English consonants

- Refer to
https://www.internationalphoneticassociation.org/IPAcharts/inter_chart_2018/IPA_2018.html
- Bilabial fricatives
- Labiodental nasal, flap, approximant
- Alveolar labial fricative
- Retroflex
- Palatal stops, nasal, fricatives, lateral approximant
- Velar fricative, approximant, lateral approximant
- Uvular nasal, trill, fricative
- Pharyngeal fricatives
- Glottal fricatives

Review of place of articulation

Double articulation

- [w]: labial-velar approximant
- [ɱ]: voiceless labial-velar fricative
- [kp̚]: voiceless labial-velar stop
- [gb̚]: voiced labial-velar stop
- [ŋ̠m̠]: labial-velar nasal
- Note: Double articulation consists of two sounds that are of same voicing, same manner of articulation, same nasality, but different place of articulation
- Note: For affricates, the two sounds connected by a tie bar are not produced simultaneously. The two sounds should be of same voicing, place of articulation, and nasality, but of different manner of articulation.

Review of place of articulation

Exercise: naming consonants

- (phonation type) voiced/voiceless (aspirated) place
(ejective/implosive) manner (including clicks)
[ɸ]: (modal) voiceless (unaspirated) pharyngeal (pulmonic
egressive) fricative
- Assumptions:
 - Modal phonation is assumed for voiced sounds
 - Unaspirated is assumed
 - Pulmonic egressive is assumed
 - Stops, fricatives, affricates, clicks need to specify voicing;
Nasals, trills, approximants, taps/flaps are assumed to be
voiced.

Review of place of articulation

Exercise: naming consonants

- Example: (phonation type) voiced/voiceless (aspirated) place (ejective/implosive) manner (including clicks)
[ɽ]: (modal) voiceless (unaspirated) pharyngeal (pulmonic egressive) fricative

1. [k̟x]: voiceless velar affricate
2. [ɦ]: voiced glottal fricative
3. [ŋ̟]: voiced labial-velar stop
4. [ç]: voiceless alveolo-palatal fricatives
5. [bʰ]: voiced bilabial aspirated stop
6. [k̟]: fronted voiceless velar stop
7. [ɳ]: dental nasal

Review of place of articulation

Exercise: transcription

- 1.Sound 1 [χuɜ]
- 2.Sound 2 ['aɸa]
- 3.Sound 3 ['niɲa]
- 4.Sound 4 ['tʃpɔ]
- 5.Sound 5 ['caje]

Review of place of articulation

Exercise: production

1. [ɛβɛ] “the Ewe language”
2. [çe'mi] “chemistry (German)”
3. [atʰa] “glue (Bengali)”
4. [bawx] “bell (German)”
5. [dɤe] “day (Georgian)”
6. [ʈa] “song (Ewe)”

Review of place of articulation

Exercise

Which of the following sounds are possible?

- A. Voiced glottalic stop (Impossible because it is impossible to close and vibrate vocal folds at the same time.)
- B. Voiced glottalic fricative ([ɦ])
- C. Voiceless pharyngeal nasal (Impossible because there is an approximation between the root of the tongue and the pharynx wall, which blocks the air from flowing through the nose.)
- D. Voiced pharyngeal nasal (Same as C.)

More about this week

Manner of articulation

- Manner of articulation refers to the degree and manner of constriction in oral and nasal cavity
- Complete constriction → No constriction
Stop » Fricative » Approximant » Vowel