

LIGN110 Section

Wednesday, 28 October 2020

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Section time: W. 3-3:50pm PST

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Review: Place of Articulation

LABIAL

CORONAL

DORSAL

CONSONANTS (PULMONIC)

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	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		ⱱ		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: Place of Articulation

LABIAL: bilabial, labiodental, (lingual-labials)

- involve one or both lips

CORONAL: dental, alveolar, postalveolar, retroflex

- Alveolar sounds can become dental by adding dental diacritics, e.g. t^{d}
- Apical sounds are produced with the tongue tip, e.g. t^{a}
- Laminal sounds are produced with the tongue blade, e.g. t^{l}
- There can be apical vs. laminar distinctions in both dental and alveolar positions

DORSAL: palatal, velar, uvular, pharyngeal, glottal

Review: Manner of Articulation

Manner of articulation refers to the degree and manner of constriction in the oral and nasal cavity

complete constriction

minimal constriction

stop >> fricative >> approximant >> vowel

Practicing non-English consonants

Please make use of the official IPA chart on canvas or found at https://www.internationalphoneticassociation.org/IPAcharts/inter_chart_2018/IPA_2018.html

Make sure you can produce and perceive:

- Bilabial fricatives
- Labiodental nasal, flap, approximant
- Alveolar labial fricative
- Retroflex sounds
- Palatal stops, nasal, fricatives, lateral approximant
- Velar fricatives, approximant, lateral approximant
- Uvular nasal, trill, fricatives
- Pharyngeal fricatives
- Glottal fricatives

Sounds with double articulation

- w : labial-velar approximant
- ɱ : voiceless labial-velar fricative
- k͡p : voiceless labial-velar stop
- g͡b : voiced labial-velar stop
- ŋ͡m : labial-velar nasal

Note 1: **Double articulation** consists of two sounds that are of the same voicing, manner of articulation, and nasality, but **differ in place** of articulation

Note 2: For **affricates**, the two sounds connected by the tie bar are **not** produced simultaneously. The two sounds should be of the same voicing, place of articulation, and nasality but **differ in manner** of articulation.

Exercise: Naming consonants

Template:

(phonation type) **voiced/voiceless** (aspiration) **place** (ejective/implosive) **manner** (click)

Example:

ɢ : (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, and clicks need to specify voicing; nasals, trills, approximants, taps/flaps are assumed to be voiced.

Exercise: Naming consonants

Template:

(phonation type) **voiced/voiceless** (aspiration) **place** (ejective/implosive) **manner** (click)

Practice:

- k̰
- h
- ŋ̰
- ɛ
- b^h
- k̰
- ŋ̰

Exercise: Naming consonants

Template:

(phonation type) **voiced/voiceless** (aspiration) **place** (ejective/implosive) **manner** (click)

Practice:

- $k̟x$: voiceless velar affricate
- h : voiced glottal fricative
- $ŋ̟$: nasal bilabial click
- $ç$: voiceless alveolo-palatal fricative
- b^h : voiced aspirated bilabial stop
- $k̟̚$: voiceless fronted velar stop
- $ɳ$: dental nasal

Exercise: Transcription

Sound 1

Sound 2

Sound 3

Sound 4

Sound 5

Exercise: Transcription

Sound 1 : χυ3

Sound 2: 'αφα

Sound 3: 'niɲa

Sound 4: 'tʃɔto

Sound 5: 'caje

Exercise: Production

[ɛβɛ] "the Ewe language" (Ewe)

[çe 'mi] "chemistry" (German)

[aʈʰa] "glue" (Bengali)

[bawx] "bell" (German)

[dɣe] "day" (Georgian)

[ʰa] "song" (Ewe)

Exercise

Which of the following sounds are possible?

- A. Voiced glottalic stop
- B. Voiced glottalic fricative
- C. Voiceless pharyngeal
- D. Voiced pharyngeal nasal

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.