

LIGN110 Section

Wednesday, 14 October 2020

Anna Mai

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

OH time: F. 9-10am PST

Zoom: ucsd.zoom.us/my/acmai

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Place of Articulation (for English)

Bilabials /p, b, m, (w)/



How to produce:

Make a full closure/approximation at the lips, and release the closure.

Place of articulation:

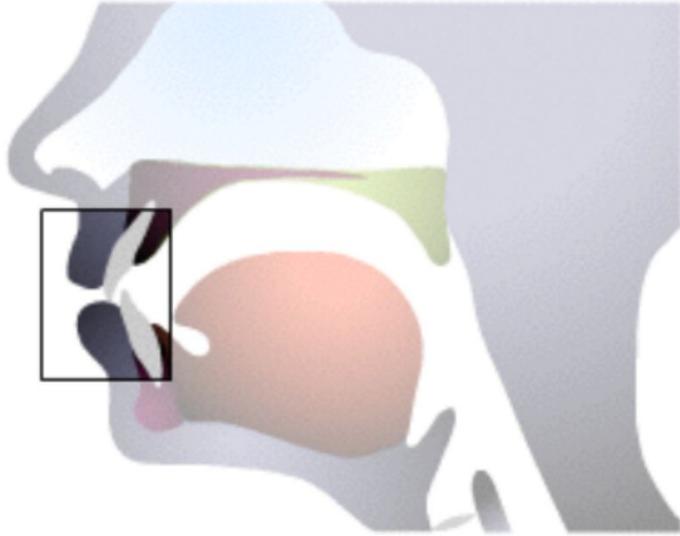
Bilabial

Active and passive articulators:

Active: lower lip;

Passive: upper lip (though it sometimes moves a bit as well)

Labio-dentals /f, v/



How to produce:

Bring lower lip against upper teeth.

Place of articulation:

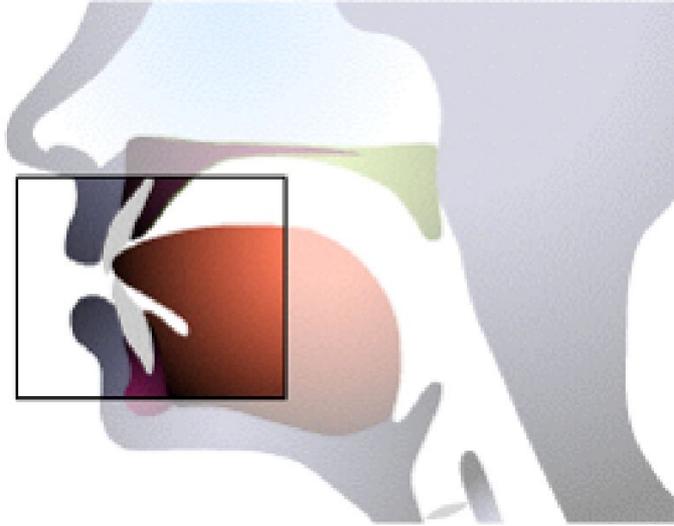
Labio-dental

Active and passive articulators:

Active: Lower lip;

Passive: upper teeth

(Inter-)dentals /θ, ð/



How to produce:

Tip of the tongue is near or just barely touching the rear surface of the teeth.

Place of articulation:

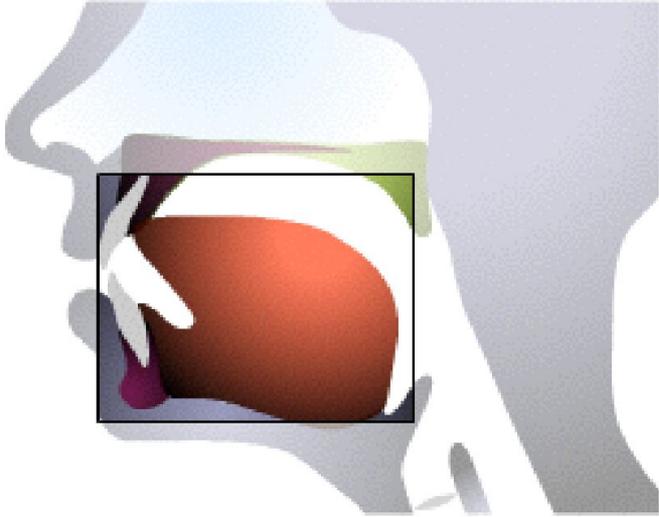
(Inter-)dental

Active and passive articulators:

Active: tongue tip;

Passive: teeth

Alveolars /t, d, s, z, n, l, r, ʃ/



How to produce:

Place/Approximate tongue tip
against the alveolar ridge (the hard
region behind the upper teeth)

Place of articulation:

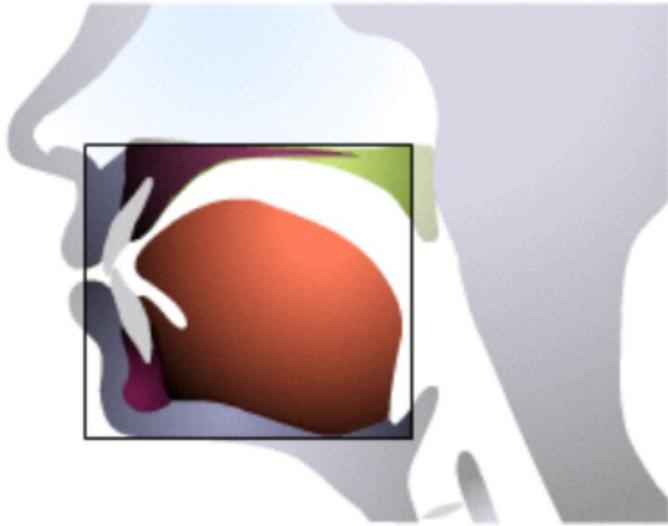
Alveolar

Active and passive articulators:

Active: tongue tip;

Passive: alveolar ridge

Post-alveolars /ʃ, ʒ, tʃ, dʒ/



How to produce:

Place/Approximate tongue blade
against the back of alveolar ridge

Place of articulation:

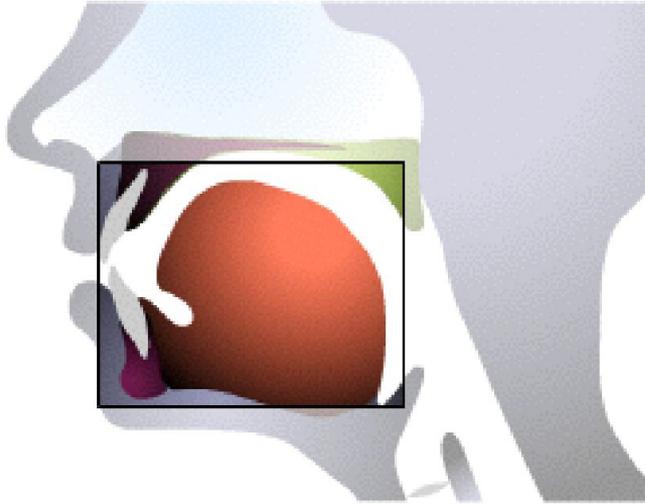
Post-alveolar

Active and passive articulators:

Active: tongue blade;

Passive: behind alveolar ridge

Palatal /j/



How to produce:

Approximate the front of tongue
against the hard palate

Place of articulation:

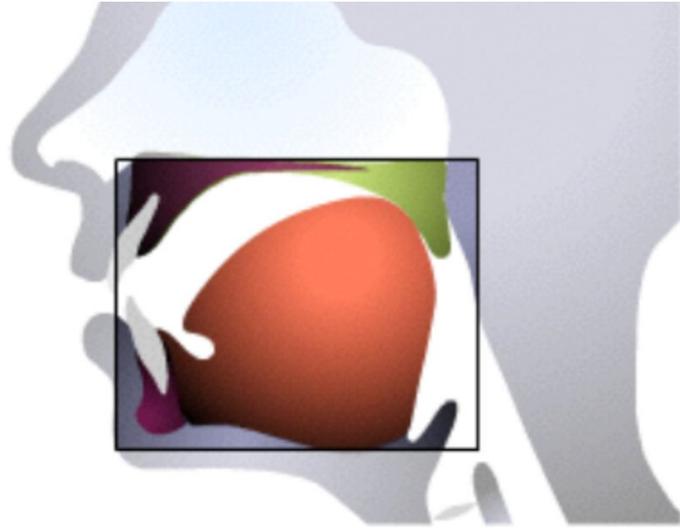
Palatal

Active and passive articulators:

Active: front of the tongue body;

Passive: hard palate

Velar /k, g, ŋ, (w)/



•Note that /w/ has two places of articulation: bilabial and velar. It is denoted as "labial-velar" in the textbook.

How to produce:

Make a full or approximate closure with the back of the tongue against the velum

Place of articulation:

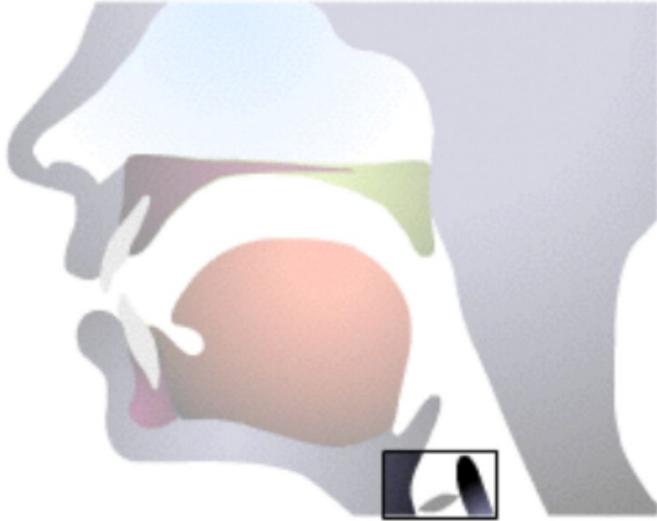
Velum / soft palate

Active and passive articulators:

Active: back of the tongue body;

Passive: soft palate

Glottal /h, ʔ/



How to produce:

/h/: keep the vocal folds apart and push air out.

/ʔ/: hold the vocal folds tightly together so that no air escapes

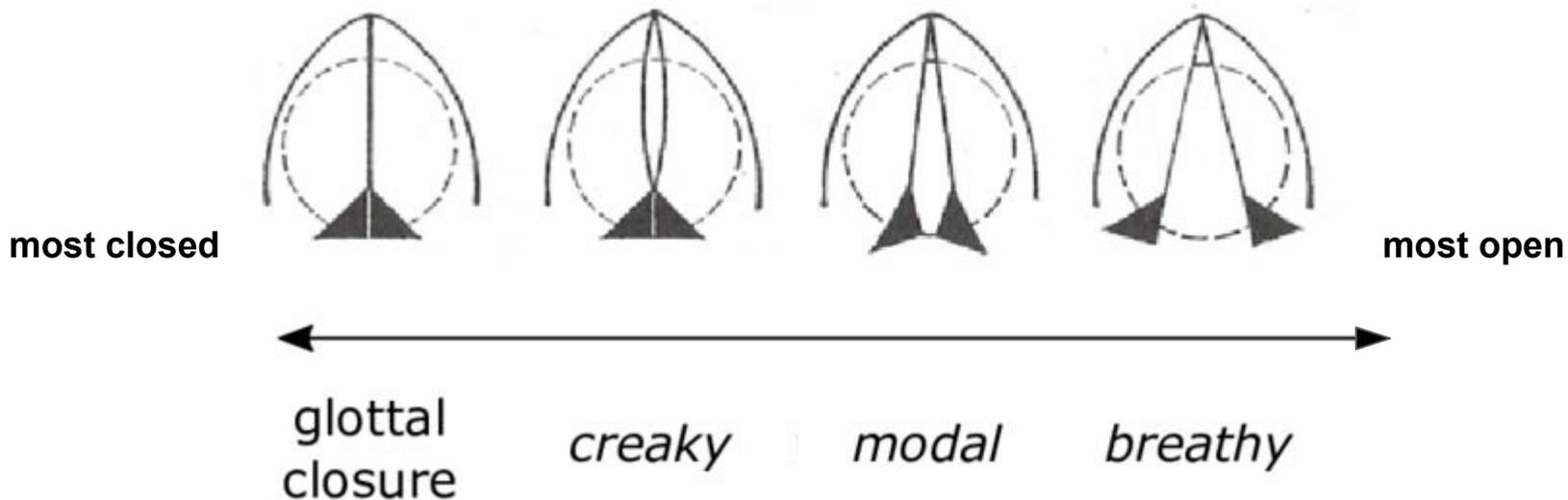
Place of articulation:

vocal folds

Active and passive articulators:

Active: vocal folds

Phonation Types



IPA Examples:

Glottal stop
ʔ (ʔa, aʔ, aʔa)

ʡ (a)

Consonants
other than
glottal

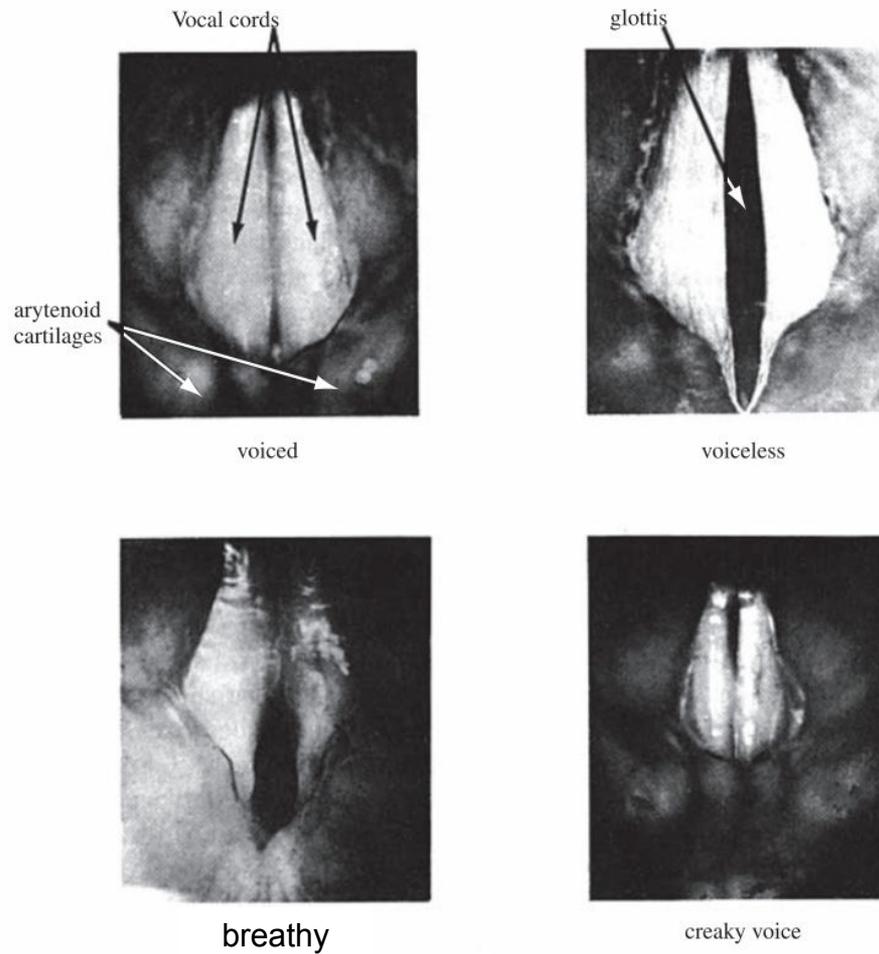
Glottal fricatives

h (ha, ah)

ɦ (aɦa)

ʕ (a)

Figure 6.6 Four states of the glottis. Photographs by John Ohala and Ralph Vanderslice.



Airstream Mechanisms

Figure 6.1 The sequence of events that occurs in a glottalic egressive velar stop [kʰ].

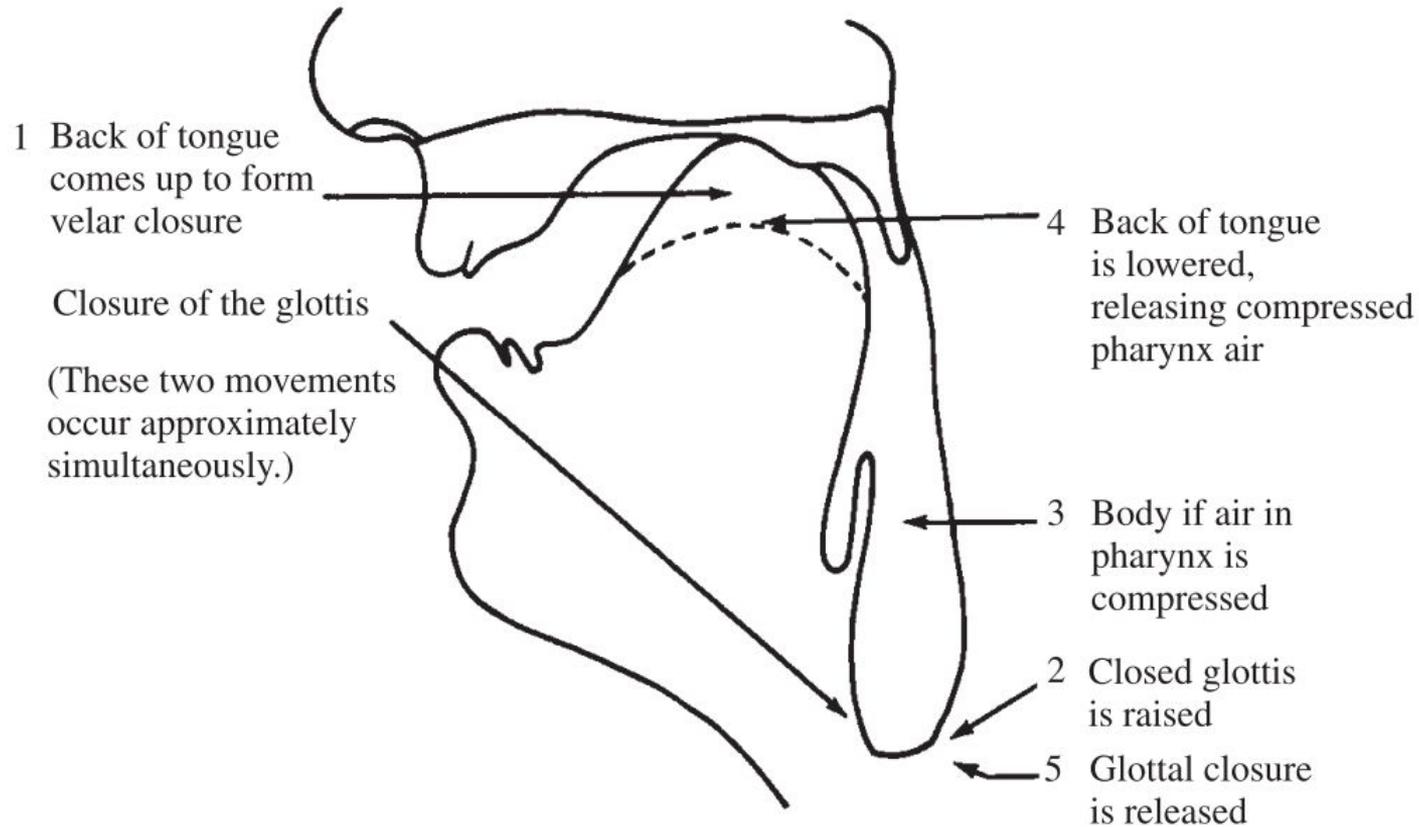
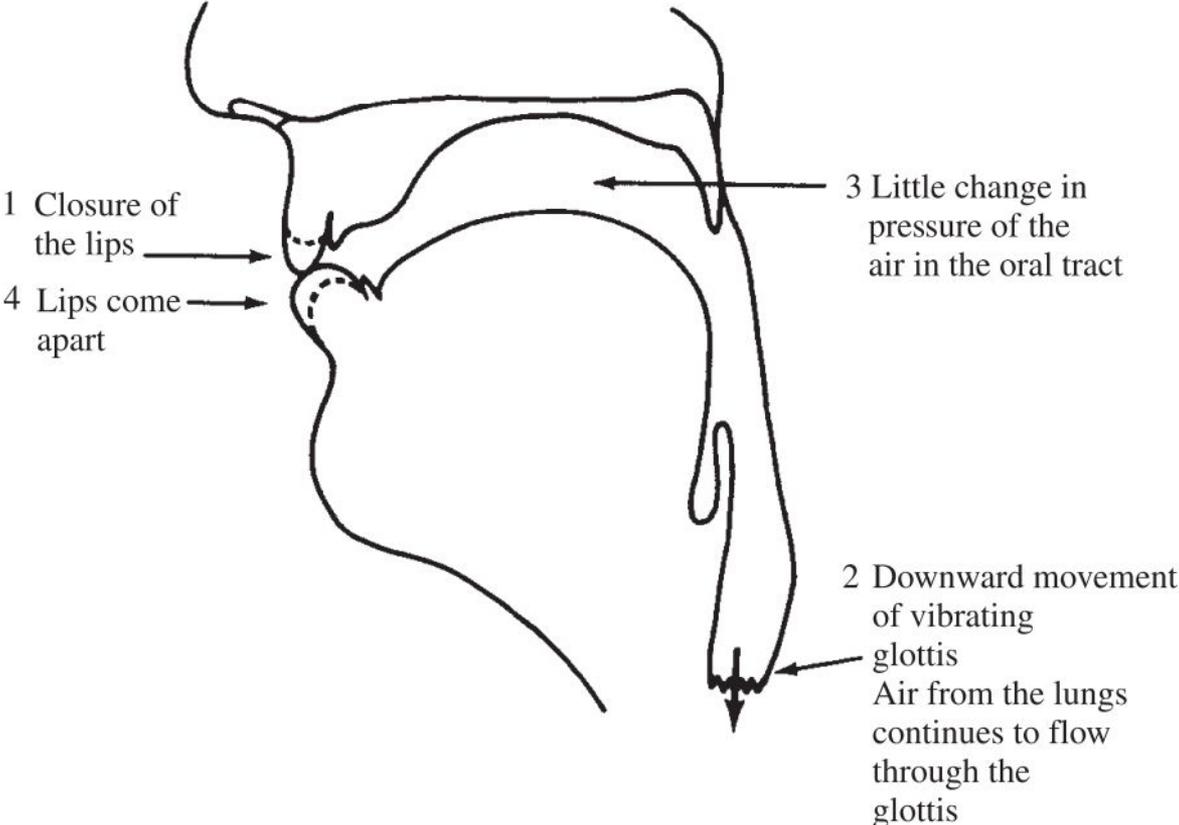


Figure 6.3 Estimated sequence of events in a Sindhi bilabial implosive [6].



Implosive [b] for emphasis in English



Figure 6.5 The sequence of events in a dental click. Initially, both the tip and the back of the tongue are raised, enclosing the small pocket of air indicated by the dark shading. When the center of the tongue moves down, the larger, lightly shaded cavity is formed. Then the tip moves down to the position shown by the dashed line, and, a little later, the back of the tongue comes down to the position shown by the dashed line.

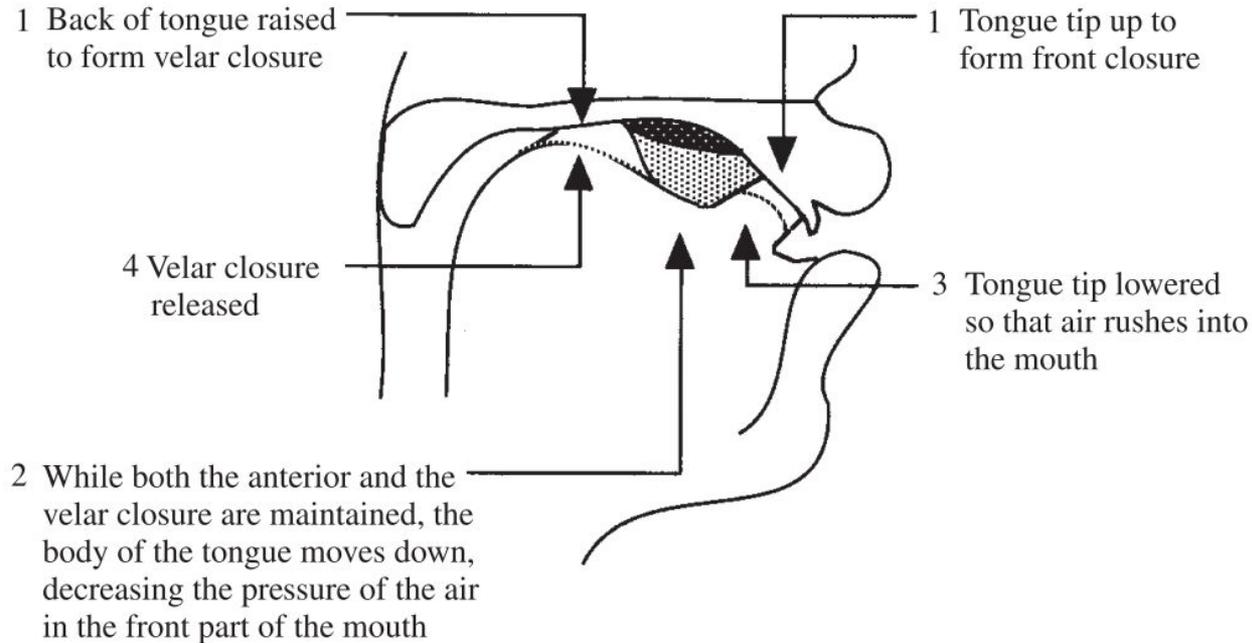


TABLE 6.4 The principal airstream processes.

Airstream	Direction	Brief Description	Specific Name for Stop Consonant	Examples	Vocal Folds
Pulmonic	egressive	lung air pushed out under the control of the respiratory muscles	plosive	p t k b d g	voiceless or voiced
Glottalic	egressive	pharynx air compressed by the upward movement of the closed glottis	ejective	p' t' k'	voiceless
Glottalic	ingressive	downward movement of the vibrating glottis; pulmonic egressive airstream may also be involved	implosive	ɓ ɗ ɠ	usually voiced by the pulmonic airstream
Velaric	ingressive	mouth air rarefied by the backward and downward movement of the tongue	click	ǀ ǃ ǂ	combine with the pulmonic airstream for voiced or voiceless velar nasals

Exercises

Which of the following words in American English involves the velum as the passive articulator for a consonant?

- a. type
- b. doctor
- c. ship
- d. sad

Which of the following words in American English involves the velum as the passive articulator for a consonant?

- a. type
- b. doctor**
- c. ship
- d. sad

Which of the following words in American English involves the front of the tongue body as the active articulator for a consonant?

- a. feel
- b. year
- c. shake
- d. front

Which of the following words in American English involves the front of the tongue body as the active articulator for a consonant?

- a. feel
- b. year**
- c. shake
- d. front

Which of the following words in American English does NOT involve the tongue tip as the active articulator for a consonant?

- a. bush
- b. yes
- c. thought
- d. shift

Which of the following words in American English does NOT involve the tongue tip as the active articulator for a consonant?

- a. **bush**
- b. yes
- c. thought
- d. shift

Foyz

In the game of Foyz, all voiceless phonemes are replaced by their voiced counterparts, and all voiced phonemes are replaced by their voiceless counterparts. If there is no voicing counterpart to an English phoneme, it remains as is.

Which of the following has correct replacements?

- a. /ð/ for “thee”
- b. /z/ and /t^h/ for “stay”
- c. /d̤/ and /d/ for “choose”
- d. /z/ and /d/ for “subtle”

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- c. /d̤/ and /d/ for “choose”
- d. **/z/ and /d/ for “subtle”**

Transcribe the following words in the game of Foyz

1. rise
2. television
3. supermarket
4. mattress
5. laptop
6. rabbit
7. backpack

Transcribe the following words in the game of Foyz

1. rise /ɹaɪs/
2. television /'dɛləvɪʒən/
3. supermarket /'zʊpəɹmɑ:rgɪd/
4. mattress /'mædʒɪz/
5. laptop /'læbdɑb/
6. rabbit /'ɹæpɪd/
7. backpack /'pægbæg/

Common English allophones

Voiceless stops are aspirated before stressed vowels:

- cat [k^hæt]

Voice stops are not aspirated elsewhere:

- when they are before unstressed vowels: cassette [kə'sɛt]
- when they are after /s/: sky [skaj]
- when they are after vowels: shake [ʃejk]

Exercise: Write the allophonic transcription of the following words.

1. topic
2. still

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Exercise: Write the allophonic transcription of the following words.

1. topic **t^hapɪk**
2. still **stɪl**

More common English allophones

/t, d/ → [t̚, d̚] before [ɹ]

- e.g., *drive* /draɪv/ → [d̚ɹaɪv]

// velarization: // → [ɫ] in syllable-final position

- e.g., *feel* /fi:l/ → [fiɫ]

/t/ tapping: /t/ → [ɾ] between two vowels, when the first vowel is stressed

- e.g., *battle* /bætəl/ → [bæɾət]

/t/ → [ʔ] between a stressed vowel and a syllabic [n]

- e.g., *button* /bʌtn̩/ → [bʌʔn̩]

More common English allophones

Transcribe the following words using these allophonic rules.

/t, d/ → [t̚, d̚] before [ɹ]

// velarization: // → [ɫ] in syllable-final position

/t/ tapping: /t/ → [ɾ] between two vowels, when the first vowel is stressed

/t/ → [ʔ] between a stressed vowel and a syllabic [n]

1. tree **t̚ɹi:**
2. writer **'ɹaɪɾəɫ**
3. rider **'ɹaɪɾəɫ**
4. eaten **'iʔn̩**
5. guilt **ɡɪɫt̚**