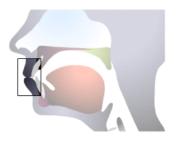
### LIGN 110 Section 25202 Week 2

Yuan Chai

University of California San Diego

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#### **Bilabials**



/p, b, m, (w)/

- •How are they produced: Make a full closure at the lips, and release the closure.
- •What is their place of articulation?
- •What are the active and passive articulators?

#### Labio-dental

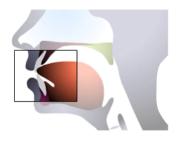


/f, v/

- •How are they produced: Bring lower lip against upper teeth.
- •What is their place of articulation?
- •What are the active and passive articulators?

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### (Inter-)Dental



/θ, ð/

- How are they produced: Tip of the tongue is near or just barely touching the rear surface of the teeth.
- •What is their place of articulation?
- •What are the active and passive articulators?

#### Alveolar

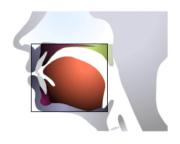


/t, d, s, z, n, l, 1, r/

 How are they produced:
 Place/Approximate tongue tip against the alveolar ridge (the hard region behind the upper teeth)

- •What is their place of articulation?
- •What are the active and passive articulators?

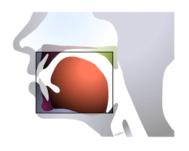
#### Post-alveolar



### /ʃ, 3, tf, ds/

- How are they produced:
   Place/Approximate tongue blade against the back of alveolar ridge
- •What is their place of articulation?
- •What are the active and passive articulators?

#### **Palatal**

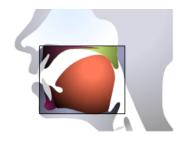


/j/

- How are they produced:
   Approximate the front of tongue against the hard palate
- •What is their place of articulation?
- •What are the active and passive articulators?

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#### Velar



### /k, g, $\eta$ , (w)/

- How are they produced:
   Place/Approximate the back of tongue against the velum
- •What is their place of articulation?
- •What are the active and passive articulators?
- •Note that /w/ has two places of articulation: bilabial and velar. It is denoted as "labial-velar" in the textbook.

#### Glottal



### /h, ?/

How are they produced: /h/: keep the vocal folds apart and push air out.

/?/: holding the vocal folds tightly together so that no air escapes

- •What is their place of articulation?
- •What are the active and passive articulators?

#### **Exercises**

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

A. type

B. doctor

C. ship

D. sad

#### **Exercises**

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

A. feel

B. year

C. shake

D. front

#### Exercises

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

- A. bush
- B. yes
- C. thought
- D. shift

## Voicing

#### What is the difference between voiced and voiceless sounds

- Put your hand on your throat (where vocal folds are)
- Produce a /s/ sound and hold it long
- Produce a /z/ sound and hold it long
- You can feel vibration of your vocal folds for voiced sounds

## More Foyz games!

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 replacement?

```
A. /ð/ for "thee"

B. /z/ and /th/ !
```

B. /z/ and  $/t^h/$  for "stay"

C. /dy/ and /z/ for "choose"

D. /z/ and /d/ for "subtle"

## More Foyz games!

## Please transcribe the following words in the game of Foyz

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

## Phoneme vs. allophone

### Common English allophones

- •Voiceless stops are aspirated before stressed vowels:
  - •cat [khæt]
- •Voice stops are not aspirated elsewhere:
  - •when they are before unstressed vowels: cassette  $[\mathbf{k} \exists \mathsf{set}]$
  - •when they are after /s/: sky [skaj]
  - •when they are after vowels: shake [ $\int e^{jk}$ ]
- Exercises
  - 1.topic
  - 2.still

## Phoneme vs. allophone

### Common English allophones

```
•/t, d/ → [tʃ, ʤ] before [ɹ]
•e.g. drive /dɹajv/ → [ʤɹajv]
•/l/ velarization: /l/ → [t] in syllable-final position
•e.g. feel /fil/ → [fit]
•/t/ tapping: /t/ → [r] between two vowels, the first of which is stressed
•battle /'bætəl/ → ['bærət]
•/t/ → [ʔ] between a stressed vowel and a syllabic [n]
•button /'bʌtn/ → ['bʌʔn]
```

## Phoneme vs. allophone practice

Please transcribe the following words using the following allophonic rules.

- •/t, d/  $\rightarrow$  [tf, ds] before [ $\iota$ ]
- ullet /l/ velarization: /l/ ightarrow [†] in syllable-final position
- •/t/ tapping: /t/  $\rightarrow$  [r] between two vowels, the first of which is stressed
- •/t/  $\rightarrow$  [?] between a stressed vowel and a syllabic [ $\eta$ ]

### Transcription practice

- 1.tree
- 2.writer
- 3.rider
- 4.eaten
- 5.guilt

## Phoneme vs. allophone

### More English allophones

- Devoicing: Voiced stops are devoiced word-initially
   /b, d, g/ → [b, d, g] word-initially
  - •e.g. bet  $/b\epsilon t/ \rightarrow [b\epsilon t]$
- •Dental assimilation: /t, d, n/  $\rightarrow$  [t, d, n] before dental •e.g. tenth /tɛnθ/  $\rightarrow$  [thenθ]
- •Unrealized stop: Stops are unreleased at syllable final position or before another consonant /p, b, t, d, k, g/  $\rightarrow$  [p $^{-}$ , t $^{-}$ , k $^{-}$ ] at syllable-final position or before another consonant
  - •e.g. bet  $/b\epsilon t/ \rightarrow [b\epsilon t]$
  - •e.g. adopt  $/ \exists ' dapt / \to [\exists dap't]$

## Phoneme vs. allophone practice

Please transcribe the following words using the following allophonic rules

- •Devoicing: Voiced stops are devoiced word-initially /b, d, g/  $\rightarrow$  [b, d, g] word-initially
- •Dental assimilation: /t, d, n/  $\rightarrow$  [t, d, n] before dental
- Unrealized stop: Stops are unreleased at syllable final position or before another consonant
- /p, b, t, d, k, g/  $\rightarrow$  [p<sup> $\gamma$ </sup>, t<sup> $\gamma$ </sup>, k<sup> $\gamma$ </sup>] at syllable-final position or before another consonant

### Transcription practice

- 1.stop
- 2.width
- 3.balloon
- 4.begged