LINGUISTICS 130 **LECTURE #10**

CONSONANTS (continued)

FRICATIVES

1. **Bilabial fricatives:**

The constriction is between the upper and lower lips. The lips are brought together in such a way that a horizontally long but vertically narrow passage between them is left for the airflow.

[ɸ] voiceless
[β] voiced

Ewe (a West-African language):
ɸú *bone*
βú *blood*

2. **Labiodental fricatives**: [f] [v]

Ewe:

LABIODENTAL		BILABIAL	
fú	*feather*	ɸú	*bone*
vú	*to tear apart*	βú	*blood*

3. **Dental (or interdental) fricatives** -- see above!

[θ] [ð]

4. **Grooved dental fricatives:** The constriction is between the tongue and the teeth; the tongue is grooved!

[s̪] grooved dental voiceless fricative

[z̪] grooved dental voiced fricative

Compare it with [θ] and [ð]:

For [θ] and [ð] the tongue is flat!

Spanish has [s̪]

5. **Alveolar fricatives**: [s] [z]

6. **Palato-alveolar** (or **alveo-palatal** or **postalveolar) fricatives**: [ʃ] [ʒ]

These fricatives are articulated with labialization (=lip rounding).

[θ] [ð] [ʃ] [ʒ] : these fricatives are articulated with *flat tongue*
↓
SLIT FRICATIVES.

7. **Retroflex fricatives**: The constriction is made with the tip of the tongue curled close to the postalveolar region. The sublamina (=underblade) forms a narrow passage with the postalveolar area.

[ʂ] voiceless
[ʐ] voiced

The voiced retroflex fricative is common in Mandarin Chinese (Beijing dialect):

r̲én [ʐ] *man*

8. **Palatal fricatives**: The tongue is arched; the constriction is between the anterodorsum and the palate.

[ç] voiceless

[ʝ] voiced

German: i<u>ch</u> *I* ; ni<u>ch</u>t *not* [ç]

English: <u>h</u>ue, <u>h</u>uge [ç] ???

Check your pronunciation!
In some varieties of English:

<u>h</u>uman, <u>h</u>uge [ʝ]

9. **Velar fricatives**: The constriction is between the dorsum and the velum.

[x] voiceless
[ɣ] voiced

German: a<u>ch</u>tung *attention* [x]

Spanish: jamas *never* [x]
diga *speak!* [ɣ]

10. **Uvular fricatives**: The constriction is between the dorsum and the uvula.

[χ] voiceless
[ʁ] voiced

French: rouge, rose [ʁ]

lettre [χ]

11. **Pharyngeal fricatives**: The root of the tongue is pulled back so that it is closer to the pharyngeal wall.

[ħ] voiceless

[ʕ] voiced

Arabic: ħa:l *condition*
ʕa:l *fine*

Is [h] a glide or a fricative?

hot, head, heat etc. [h]

Phonological criteria:

a. it behaves like a glide in English (it occurs prevocalically)

b. the articulation is similar to that of the vowel following it.

Phonetic criterion:

The articulation can be *prolonged*, thus it is more like a fricative; the articulation of the glides cannot be prolonged.

12. **Glottal fricatives**:

[h] voiceless glottal fricative

The glottis is closed to about the degree of whispering. There is friction also in the pharyngeal and oral cavities: *cavity friction.*

[ɦ] voiced glottal fricative

ahead, behind [ɦ]

The vocal folds are slightly apart along their entire length, but still continue to vibrate (this type of vocal fold adjustment is called *murmur*).

STRIDENCY (relevant to fricatives):

- degree of frictional noise
- stridency is determined by the place of articulation

STRIDENT FRICATIVES: [s] [z] [ʃ] [ʒ] [f] [v]
↓

high degree of frictional noise

[θ] [ð] non-strident fricatives: low degree of frictional noise.

SIBILANTS: Speech sounds in which there is a high-pitched turbulent noise.

[s] [z] [ʃ] [ʒ] sibilants
[f] [v] [θ] [ð] non-sibilants

Sibilants have more acoustic energy → greater loudness at a higher pitch.

LATERAL FRICATIVES

There is contact between the blade (or the tip) of the tongue and the alveolar ridge. Fricative noise is created between the sides of the tongue and the upper side teeth.

[ɬ] voiceless alveolar lateral fricative

[ɮ] voiced alveolar lateral fricative

Welsh: llan *church* Lloyd [ɬ]

Zulu: ɮuɮa *roam loose*