

Phonetics: Supra- segmental Features

Lecture 6

Presented by Margana



Segmental Features

As mentioned earlier, there are two elements of the study of phonology. They are segmental and suprasegmental elements.

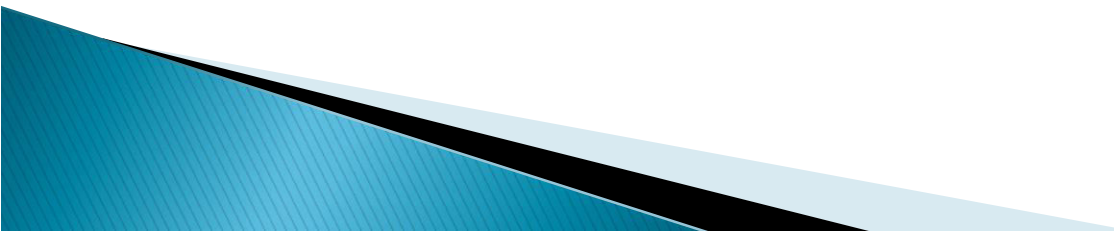
Cont.

The *segments* (i.e. individual sounds) of speech could be classified in terms of place and manner of articulation and voicing for **consonants**.

The segments of vowels are categorised in terms of the tongue height and advancement, lip rounding, and tenseness.

Supra-segmental Features

The characteristics of *supra-segmental* of speech: speech sounds may also have **length, intonation, tone, and stress.**



Length (Duration)

The length refers to the duration of a speech sound as some speech sounds are inherently longer than others as exemplified as follows.

High vowels are shorter than low vowel.

Voiceless consonants are longer than voiced consonants.

Voiceless fricatives are the longest consonant of all.



Principles of Duration

i:, a: or ɑ:, ō:, u: and ə: are fully long when final, e.g. when such words as si: (see), ka: (car), rō: (raw). tu: (two), fə: (fur) are said by themselves or are final in a sentence.

Cont.

They are also fully long when a voiced consonant follows and the syllable is final in a sentence, e.g. when such words as si:d (seed), hɑ:m (harm), kō:z (cause), smu:ð (smooth), bə:d (bird) are said by themselves or are final in a sentence

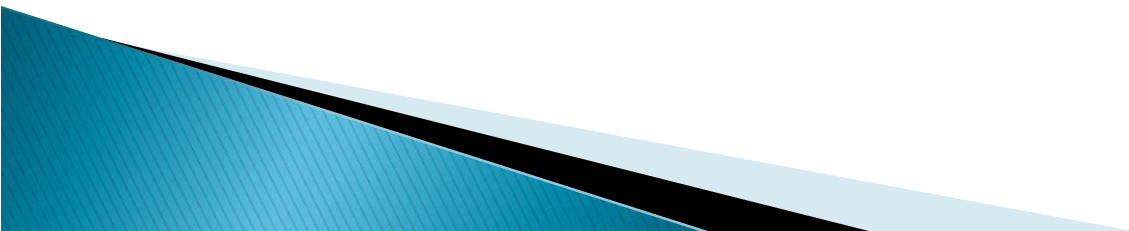
Other principles

High vowels are shorter than low vowel

- [i] high front lax unrounded vowel in [big] is shorter than [æ] low front lax unrounded vowel [bæg]

Voiceless consonants are longer than voiced consonants

- the sound [b] in [big] requires shorter distance to produce than [p] like in [pig].



Cont.

Voiceless fricatives are the longest consonant of all

– [f] in [fæn] requires long distance

They are less long, often not more than half-long, when weakly stressed syllables follow. In *spring-board*

They are half-long, often not more than half-long, when weakly stressed syllables follow, e.g. *i'mmediately, opp'ortunity*

Cont.

They are half-long when a breathed consonant follows in the same syllable, e.g. in si:t (seat), hɑ:f (half)

They are half-long, or even less than half-long, in weakly stressed positions preceding a strong stress, e.g. *e'conomy, a'uthority*

Cont.

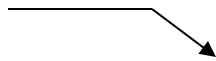
- ▶ the influence of the sounds around
 - Compare bead, beat, and bees
 - [i] precedes a **voiced consonant** in [bid] requires 1.5 times **longer than the same vowel before a voiceless consonant** as [i] in [bit]
 - While [i] in [bis] is as long as [i] in [bit]
 - Thus, the longer duration is required when producing vowel sounds preceded the voiced consonants

Intonation

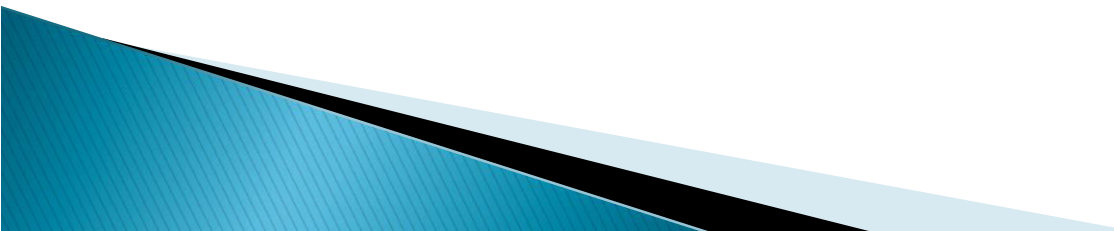
- ▶ The pattern of rises and falls in *pitch* across a stretch of speech such as a sentence.
- ▶ The pitch = highness or lowness
- ▶ The meaning of sentence can depend on the sentence's intonation contour.
- ▶ [yu gat ən e an δə test]



▶ [yu gat ən e an δə tets, ə si an δə homwrk, n ə
bi an δə kiwz]



Tone

- ▶ With respect to the syllables in a word the pitch can make a difference in the word's meaning
 - ▶ The languages that include tone as one of the factors affecting meanings are called tone languages
 - ▶ Chinese...
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Stress

It is a property of syllables, not individual segments. A stressed syllable is more prominent or easily identified than unstressed

Stressed syllables are prominent due to

- A number of physical effort in production,
- Greater loudness
- Increased duration

Cont.

- ▶ Unstressed syllables contains reduced vowels. A reduced vowels is one which is produced closer to the mid central position in the mouth, and which is more likely to be lax than its stressed unreduced vowels.

- ▶ Example:

photograph vs photography

compare the second vowels in the above words (as English contains primary, secondary, and tertiary stress levels) in the above example in a word like photography, the second syllable is most prominent (primary stress), the final syllable is next most prominent (secondary stress) and the other syllables are unstressed (tertiary)

Cont.

Study the stress in the following phrases, how does stress affect the meaning of the phrase:

A bla'ckboard vs a black bo'ard

A white ho'use vs the wh'ite house

A gree'nhouse vs a green ho'use

References:

Fromkin, V. et al. 1988. *An Introduction to Language*. London: Holt, Rinehart and Winston.

Mcmahon, A. 2002. *Introduction to Phonology*. Edinburgh: Edinburgh University Press

A traditional Japanese garden scene. In the upper left, a thatched pavilion sits on a grassy slope. The middle ground features a pond with a stone lantern and a bamboo fence. The background is filled with lush greenery and some autumn-colored trees. The text "Thank you." is overlaid in the center in a red, stylized font.

Thank you.