

كلية التربية

المادة: صوتيات

الفرقة: الأولى لغة إنجليزية

القسم: تربية خاصة

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المحاضرة الثانية

# **Describing Sounds**

## Purely Phonetic Features:

### □ Loudness:

- Loudness is related to the breadth of the vibration of the vocal folds.
- Loudness can distinguish meaning.
- Loudness is one component of stress.
- It distinguishes between the noun *“record”* and the verb *“record”*.

## □ Pitch:

- Pitch is related to the frequency of the vibration of the vocal folds.
- Pitch is a component of stress and it shapes the intonation of connected speech.
- Stress and pitch movement tell us whether a sentence like: *She speaks* *English* is meant to be a statement or a question.

## □ Tone of voice:

- Tone of voice, also called voice quality, tonal quality, or timber, refers to the difference in “color” that we hear between two voices when they produce a sound with otherwise exactly the same phonetic features.

- The tone of voice enables us to recognize a particular speaker or to describe the speaker as female or male, young or old, angry or exhausted , etc.
- But the tone of voice does not change the function of individual speech sounds.

## □ Duration and Length:

- Duration and length both refer to the span of time during which a sound is sustained.
- The term duration is used for the absolute or actual time taken in the articulation of a sound.

- A difference in length is almost always accompanied by a difference in sound quality.

## □ Air-stream mechanism:

All speech sounds are made with some movement of air. The majority of sounds used in the languages of the world are produced with air that is pushed up from the lungs through the windpipe, or trachea, and leaves the body through the mouth and sometimes through the nose.



## □ Voicedness and Voicelessness: The State of the Glottis:

- If the glottis is narrow ,i.e., the vocal folds are together, the air-stream forces its way through and causes the vocal folds to vibrate. Sounds produced in this way are called voiced.

- If the glottis is open, i.e., if the vocal folds are apart, the air passes through without causing the vocal folds to vibrate. Sounds produced in this way are called voiceless.
- If the glottis is closed, i.e., the vocal folds are firmly pressed together, and the air-stream is stopped completely. Such a glottal closure can produce only one sound, which is called a glottal stop or glottal plosive.

## □ Phonologically Relevant Features

### Distinctive Features:

## □ Intensity of Articulation: Lenis and Fortis:

- Voiced sounds are usually made with a relatively weak breath force, or little muscular tension. This is called a lenis articulation.

- Voiceless sounds, on the other hand, are made with more force, or higher tension. This is called a fortis articulation.

## □ Place of Articulation:

- **Consonants** are articulated by stopping or obstructing the flow of air at one point or another except the three nasals /m/, /n/.
- An important feature for the description of consonants is the place of articulation.
- The place of articulation names the speech organs that are primarily involved in the production of a particular sound.

- To produce a consonant , there is usually one active, mobile, lower speech organ that moves and makes contact with a passive, immobile, upper speech organ.
- For example, in the articulation of the last sound in the word surf , the air stream is obstructed by the contact of the lower lip with upper teeth. This sound is therefore called a “labiodental consonant”, or simply a “labiodental” [from Latin labialis, ‘of the lips’, and dentalis, ‘of the teeth’.

## ❑ Manner of Articulation:

- Another important feature for the description of speech sounds is the type or degree of closure of the speech organs involved [manner of articulation].
- The manner of articulation refers to the degree to which the air-stream is obstructed at the place of articulation of consonants.

- When pronouncing the last sound in *surf*, for example, the gap between the lower lip and the upper teeth is narrowed to the point where friction is caused as the air passes through.
- The resultant consonant is therefore called a “fricative”.
- So /f/ sound is described as fortis labiodental fricative.



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