



University of Tikrit

College of Education for women

Department of English

Subject: Phonetics

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What is Phonetics?

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Phonetics is the scientific study of speech sounds, that is described and categorizing human sounds, understanding the creation of sounds, comparing and contrasting language sounds. Phonetics deals with the sounds of speech and their production, combination, description, and representation by written symbols.

Branches of Phonetics

Phonetics comprises of three main subfields according to the production (articulatory), transmission (acoustic) and perception (auditive) of sounds.

Major Phonetic Classes

- **Noncontinuants: the airstream is totally obstructed in the oral cavity – Stops and affricates**
- **Continuants: the airstream flows continuously out of the mouth – All other consonants and vowels**
- **Obstruents: the airstream has partial or full obstruction – Non-nasal stops, fricatives, and affricates**
- **Sonorants: air resonates in the nasal or oral cavities – Vowels, nasal stops, liquids, and glides**

Major Phonetic Classes: Consonantal

- **Consonantal:** there is some restriction of the airflow during articulation – All consonants except glides
- **Consonantal sounds can be further subdivided:** – **Labials:** [p] [b] [m] [f] [v] [w] [ʌ]
- **Articulated with the lips – Coronals:** [θ] [ð] [t] [d] [n] [s] [z] [ʃ] [ʒ] [tʃ] [dʒ] [l] [r]
- **Articulated by raising the tongue blade**

Major Phonetic Classes

- **Consonantal categories:**

- **Anteriors:** [p] [b] [m] [f] [v] [θ] [ð] [t] [d] [n] [s] [z]

- **Produced in the front part of the mouth (from the alveolar area forward) – Sibilants:** [s] [z] [ʃ] [ʒ] [tʃ][dʒ]

- **Produced with a lot of friction that causes a hissing sound, which is a mixture of high-frequency sounds**

- **Syllabic Sounds: sounds that can function as the core of a syllable – Vowels, liquids, and nasals**

Articulatory phonetics: The technique of speech sounds are produced and a subfield of phonetics. Articulatory phoneticians clarify how humans generate speech sounds through the interaction of different physiological structures. Sounds can be divided into *consonants* and *vowels*. The former can be characterized according to:

1- Place of articulation: Active places of articulation are: bilabial, dental, alveolar, palatal, velar, uvular, glottal.

2- Manner of articulation: Conscious the place of articulation is not sufficient to completely analyze a consonant, the way in which the structure happens is equally important. Manners of articulation describe how definitely the active articulator modifies, narrows or finishes.

3- Voicing: It deals with the case of sounds whether they are voiced or voiceless.

Acoustic phonetics: Acoustic phonetics is the study of the physical properties of speech, and aims to analyze sound wave signals that occur within speech through varying frequencies, amplitudes and durations.

Auditory phonetics is a department of phonetics concerned with the hearing of speech sounds and with speech perception. It thus encompasses the study of the relationships between speech bases and a listener's responses to such bases as reconciled by mean of the peripheral and central auditory systems, including certain cortical regions of the brain.