**The Nineth Lecture**

**General Criteria for the Description of Consonants**

Vocalic and consonantal are the phonetic features used to describe the consonant sounds. The vocalic feature concerns the passage of the breath through the oral cavity and the position of the vocal cords. When the vocal cords are drawn together in such a way that the breath moves through them making a vibration and then passes out of the oral cavity without interference, here the articulated sound is [+vocalic]. All the English vowels as well as the consonants /l/ and /r/ have this feature. So the other English sounds are [-vocalic] since the air stream is fully (closure) obstructed for a while from passing through the oral cavity as with the following sounds /p, b, t, d, k, g, ʧ, ʤ, m, n, ŋ/; or there is partial closure that makes interference as with the following sounds /f, v, θ, ð, s, z, ʃ, Ʒ, w, j/; or there is no vibration of the vocal cords although there is no real obstruction in the vocal cords as with /h/ sound. The consonantal feature refers to the movement of the vocal tract when some part of them is spread apart from the pre speech position and an obstruction to the air stream is formed in the oral cavity. This leads to the fact that [-vocalic] sounds are [+consonantal], and [-consonantal] are [+vocalic]. These two phonetic features deal with vocal tract activities which may be implemented independently of each other, there is a possibility of being [+vocalic, +consonantal] or [-vocalic, -consonantal] at the same time. Note that the property [consonantal] does not necessarily require that the obstruction cause closure or actual interference with the air stream. An obstruction to the air stream may happen allowing enough space for the breath to move around that obstruction without interference as with /l/ and /r/. The phonetic features [vocalic] and [consonantal] divide the English sounds into four groups as follows:

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| --- | --- | --- |
| Phonetic features  |  English sounds  |  common name of group |
|  +vocalic -consonantal  | /ɪ, i:, e, ʌ, ᴂ, a:, ɒ, o:, u, u:, ǝ, ǝ:/  |  vowels |
|  -vocalic +consonantal  | /p, b, t, d, k, g, m, n, ŋ, f, v, ɵ, ð, s, z, ʧ, ʤ, ʃ, Ʒ,/  |  consonants |
|  +vocalic +consonantal |  /l, r / |  liquids |
|  -vocalic -consonantal | / h, w, j / |  glides |

The following points are taken into consideration while describing consonants.

1-The pulmonic or non-pulmonic airstream set in motion by the lungs or by some other means.

 2- The egressive or ingressive airstream forced outwards or sucked inwards.

3- The vibration of the vocal cords.

4- The position of the soft palate as oral, or nasal or nasalized.

5- The place of articulation that refers to at what point or points and between what organs does the closure or narrowing take place.

6- The Manner of articulation that refers to what is the type of closure or narrowing at the point of articulation.

A more detailed description includes additional information dealing with the shape of the rest of the tongue, the relative position of the jaws, and the position of the lip.

**Classification of Consonants**

The description of consonants according to the general criteria mentioned above will be as follows:

**1. Egressive Pulmonic Consonants**

Most speech sounds are produced with egressive air pushed from the lungs. All English sounds are egressive except /p, t, k/ practically.

**2. Voicing**

It has been stated already that his category shows us whether the consonant is voiced or voiceless on the basis of articulatory phonetics. In the production of consonants the vocal cords take two basic positions: 1) When they are drawn together they will vibrate because the air pushes them apart repeatedly in order to pass through, then the consonant is voiced. 2) When the vocal cords are spread apart, the air that is pushed from the lungs will pass between them freely without obstacles and they do not vibrate, then the consonant produced in this way is voiceless. There is a tendency for a voiceless sound to become voiced and vice versa in company with each other. Stops, fricatives, and affricates come in voiced and voiceless pairs except for /h/ sound. Nasals, liquids, and glides are voiced, as are vowels. The following 15 sounds are voiced consonants in English: /b, d, g, v, ð, z, ʒ, m, n, ŋ, r l, j, w and dʒ / and the remaining nine consonants are voiceless specifically: /p, t, k, f, θ, s, ∫, h, and t∫/.

**3. The Place of Articulation**

Most of linguists review the main places of articulation of consonant sounds as follows:

1. ***Bilabial***(from bi ʻtwoʼ + labial ʻlipsʼ): The primary constriction is at the two lips articulators, e.g. /p, b, w/.
2. ***Labio-dental***(from labio ʻlip ʼ+ dental ʻteethʼ): The active articulator is the lower lip with the passive articulator the upper teeth, e.g. /f, v/.
3. ***Dental*** *(*from ʻteethʼ): The active articulator is the tip of the tongue with the passive articulator the upper teeth, e.g. / θ, ð /.
4. ***Alveolar*** *(*from ʻalveolar ridgeʼ)*:* The active articulator is the blade, or tip and blade of the tongue with the passive articulator the alveolar ridge, e.g. /t, d, l, n, s, z /.
5. ***Post-alveolar*** (frompostʻafter' or ʻbeyondʼ + alveolar ʻalveolar ridgeʼ): The active articulator is the tip of the tongue with the passive articulator the backward part of the alveolar ridge, e.g. the initial sound in 'read' that is /r/.
6. ***Retroflex (***from retroʻbackwardsʼ+ flex ʻbendʼ)***:*** The active articulator is the bottom of the tip of the tongue and the passive articulator is the front of the hard palate immediately behind the alveolar ridge. The tip of the tongue is curled back in such a way that only its lower part articulates, e.g. /r/ that is found in south-west British and American English of pronunciation.
7. ***Palato-alveolar***(from palato ʻpalateʼ + alveolar ʻalveolar ridgeʼ): The blade, or the tip and the blade of the tongue (active articulator) articulates against the alveolar ridge (passive articulator), and the front of the tongue (active articulator) is raised towards the hard palate (passive articulator), e.g. /∫, ʒ, t∫, dʒ/.
8. ***Palatal*** (from ʻpalateʼ)*:* The active articulator is the front of the tongue with the passive articulator the hard palate, e.g. /j/.
9. ***Velar*** (from ʻvelumʼ): The active articulator is the back of the tongue with the passive articulator the soft palate, e.g. /k, g, ŋ/.
10. ***Uvular*** (fromʻuvulaʼ): The back of the tongue articulates with the uvula, e.g. /ʒ/as in French ʻrougeʼ.
11. ***Glottal***(from ʻglottisʼ)*:* The two vocal cords are the articulators for the glottal sounds. The sounds are produced by an obstruction, or a narrowing causing friction, but not vibration between the vocal cords, e.g. /h/.