

**University of Sétif-2**  
**Department of English Language**  
**Phonetics Course (1st Year Classes)**  
**Lecturer: Miss. Belhamel**

**Lecture Five**

**Description and Classification of Consonants**

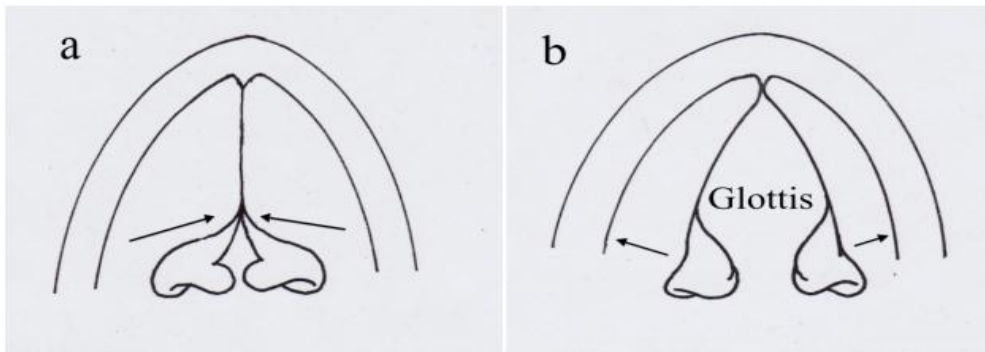
Consonants can be described in terms of the *location of the constriction*, the *manner of the constriction*, and the *type of phonation it supports*. That is, consonants are often classified by being given a so-called VPM- label which stands for **Voicing**, **Place**, and **Manner** as detailed below.

**1. Voicing**

In normal position, the **vocal folds** are **apart** and in this case **the glottis** is **open**. When the edges of the vocal folds touch each other, air passing through **the glottis** will usually cause **vibration**. This **opening** and **closing** is repeated regularly and gives what is called **voicing**. All the **consonants** are sub-classified as either **voiced** or **voiceless (unvoiced)**. At the phonation stage, the **vocal folds** are in **tight contact** for the **production of voiced consonants**, while the air for **voiceless consonants** passes through the **glottis** with **vocal folds set apart**. Table 1 presents the list of voiced and voiceless consonants:

**Table 1. Voiced and Voiceless Consonants**

<b>Voiceless</b>	<b>Voiced</b>
/p/	/b/
/t/	/d/
/k/	/g/
/f/	/v/
/s/	/z/
/ʃ/	/ʒ/
/θ/	/ð/
/tʃ/	/dʒ/
/h/	/m/, /n/, /ŋ/, /l/, /r/, /j/, /w/

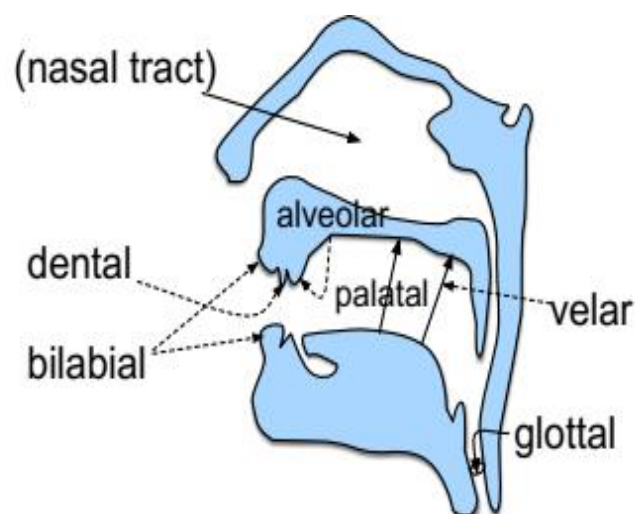


**Figure 1.** The closing and opening of the vocal folds

According to **the force of articulation** or **energy** with which they are articulated and perceived, **consonants** are subdivided into relatively *strong* (*fortis*) or relatively *weak* (*lenis*; see Peter Roach). English **voiced consonants** are *lenis*, whereas English **voiceless consonants** are *fortis*. **The latter** seem to be **pronounced** with a **stronger muscular tension** and **breath force**. For example, *pow* /**p**aʊ/ and *bough* /b**aʊ**/. **The force of articulation** is not easy to **define** and **measure**, however **some phoneticians** prefer to **use** the terms **fortis** and **lenis** rather than the terms **voiceless** and **voiced**.

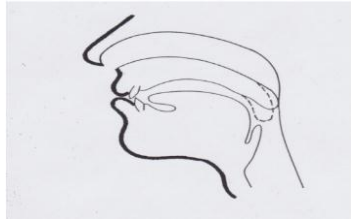
## 2. Place of Articulation

Places of articulation, shown in *Fig.1* can be a useful way of grouping phones into equivalence classes, described below.



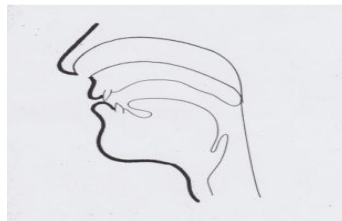
**Figure 1.** Major English Places of Articulation

**2.1 Bilabial sounds** are produced with the two lips coming together (see *Fig.2*): /p/ as in possum, /b/ as in bear, /m/ as in marmot; and /w/ as in yes;



**Figure 2.** Bilabial Sounds

**2.2 Labiodental sounds** are made with contact between the lower lip and the upper front teeth (see *Fig.3*): /f/ as in safe, /v/; as in save;



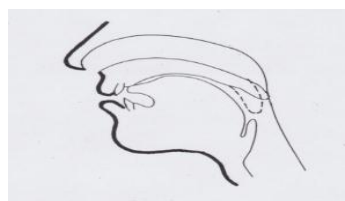
**Figure 3.** Labiodental Sounds

**2.3 Dental sounds** are articulated by placing the tongue behind the teeth with the tip slightly between the teeth (see *Fig.4*): /θ/ as in thing, /ð/ as in though;



**Figure 4.** Dental Sounds

**2.4 Alveolar sounds** are made by advancing the tip of the tongue towards the alveolar ridge (see *Fig.5= 5.1*): /t/, /d/, /n/, /l/, /s/, /z/ too, do, nook, look, sue, zoo;



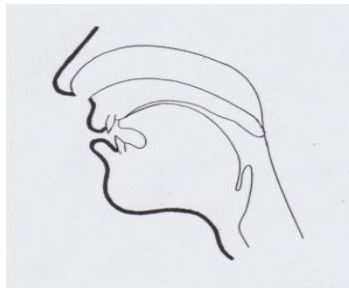
**Figure 5. (5. 1)** Alveolar Sounds

and the postalveolar sound /r/ as in rook is made by upturning the tip of the tongue behind the alveolar ridge (see **Fig.5= 5.2**);



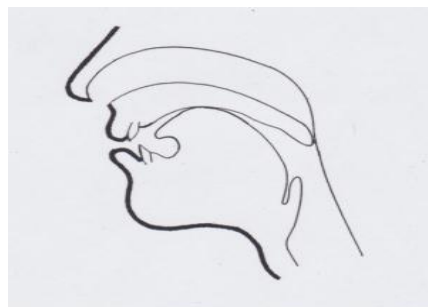
**Figure 5. (5. 2) Post-alveolar Sound /r/**

**2.5 Palatoalveolar** sounds are produced by raising the blade of the tongue against the rising back of the alveolar ridge i.e., the alveolar region (see **Fig.6**): /ʃ/, /ʒ/, /tʃ/, /dʒ/ pressure, Asia, China, jar;



**Figure 6. Palatoalveolar Sounds**

**2.6 Palatal sounds** are very similar to palate-alveolar ones, they are pronounced by placing the front of the tongue up close to the palate (see **Fig.7**): The only palatal sound in English is /j/ as in yak, year;



**Figure 7. Palatal Sound**

**2.7 Velar sounds** are made as the tongue body makes contact with the soft palate i.e., pressing the back of the tongue up against the velum (see **Fig.8**): /k/, /g/, /ŋ/ cuckoo, goose, kingfisher, and /w/ as in winter;



**Figure 8.** Velar Sounds

**2.8 Glottal sound** is produced by the narrowing of the glottis, by bringing the vocal folds together, as the wall of the pharynx makes contact with the root of the tongue (see **Fig.9**): /h/ as in high;



**Figure 9.** Glottal Sound

### 3. Manner of Articulation

Consonants are also distinguished by how the restriction in airflow is made i.e., how the air stream is modified in the vocal tract. Following are the major manners of articulation for English consonants:

**3.1 Plosives (or stops)** are consonants with a complete closure:

**p b t d k g**  
*pin bin tin din kin gum*

**3.2 Fricatives** are consonants with an almost complete closure:

**f v θ ð s z ʃ ʒ h**  
*fine vine think this seal zeal sheep measure how*

**3.3 Affricates** (sometimes are called *affricated plosives*) are **combinations** of a plosive and a fricative:

**tʃ dʒ**  
*chicken giraffe*

**3.4 Nasals** are made by lowering the velum and allowing air to pass into the nasal cavity:

**m n ŋ**  
*sum sun sung*

**3.5 Laterals** are sounds where the **air escapes around the sides** of the **tongue**. In English, there is only one lateral sound:

**l**  
*light*

**3.6 Approximants** are sounds, where the **tongue** only **touches the roof of the mouth**, with a smaller degree of closure:

**l r w j**  
*leader reason wet yet*