

**Module:** English Phonetics and Phonology  
**Level/Groups:** First Year: 03, 04, 05, 06, 07 & 08  
**Teacher:** Ms. Lamani

## **Lecture three: English Consonants**

### **Vowels and Consonants:**

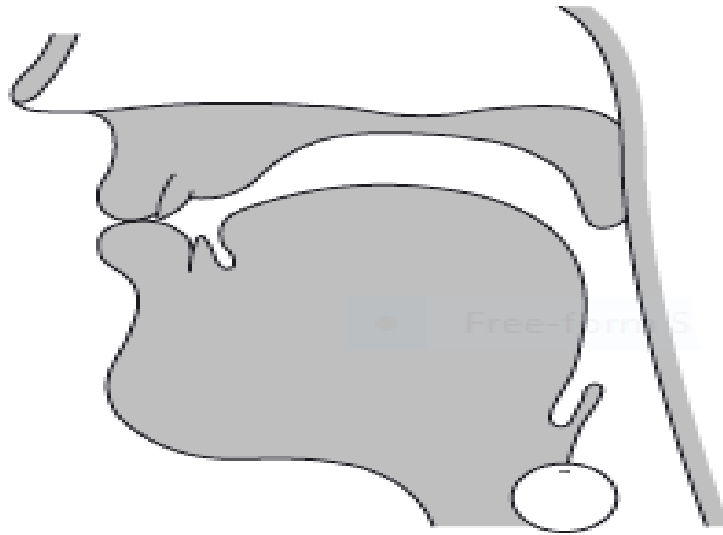
The words Vowels and Consonants are very familiar ones, but when we study the sounds of speech scientifically we find that is not easy to define exactly what they mean. The most common view is that vowels are sounds in which there is no obstruction to the flow of air as it passes from the larynx to the lips. But if we make a sound like /s/ and /d/ it can be clearly felt that we are making it difficult or impossible for the air to pass through the mouth. Most People would have no doubt that sounds like /s/ and /d/ should be called consonants.

We begin the study of English sounds in this course by looking at the vowels, first.

### **1. Classification of consonants according to place of articulation**

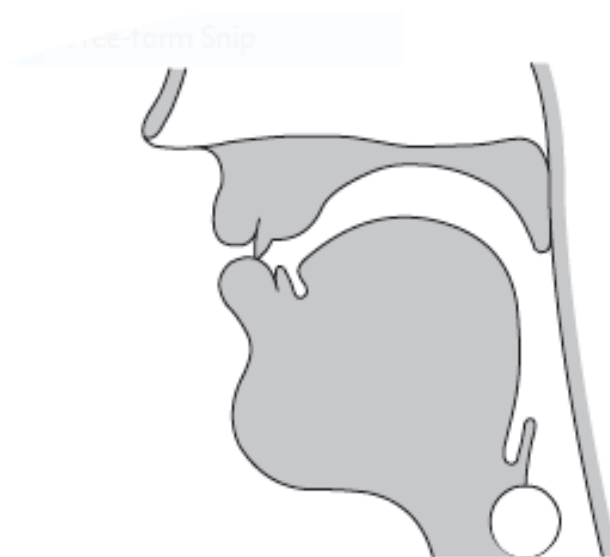
There are eight possible places of articulation in English. In this section, all the places of articulation. The purpose of classifying consonant sounds according to place is to focus on which organs are used in the vocal tract to articulate or produce these 24 consonant sounds. Therefore, every place of the eight are labeled to few consonant sounds that utilize a certain articulators to generate them. There are:

- (1) **Bilabial Consonants** are produced with both lips. There is only one voiceless bilabial in English, namely /p/ as in *peach*, whereas there are two voiced bilabials, /b/ as in *banana* and /m/ as in *mango*.



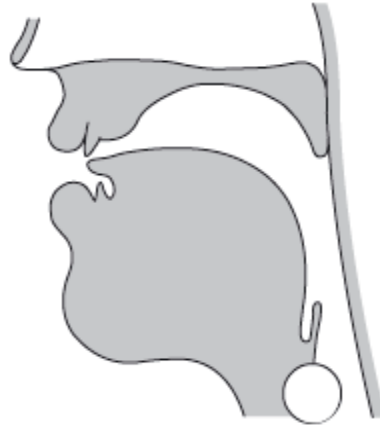
English /p/ and /b/

- (2) **Labio-dental Consonants** are produced by a movement of the lower lip against the upper teeth. There is one voiceless labio-dental in English, /f/ as in *film*, and one voiced labio-dental, /v/ as in *video*.



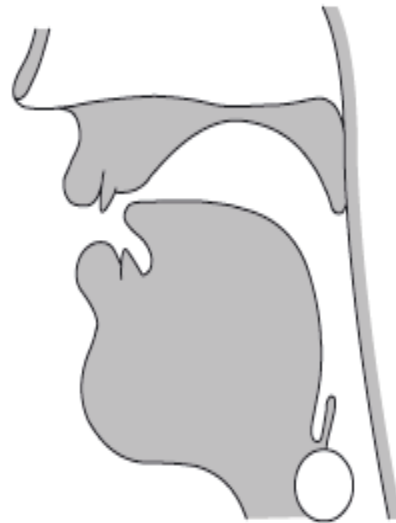
English /f/ and /v/

- (3) **Dental, or interdental, Consonants** are made with the tongue tip against the upper teeth. The two dentals in English are often popularly called "*teeth*" because of their spelling. They are the voiceless /θ/ as in *thin* and the voiced /ð/ as in *this*.

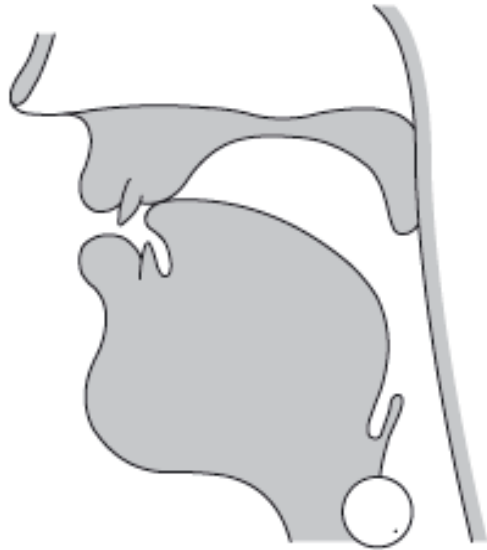


English /θ/ and /ð/

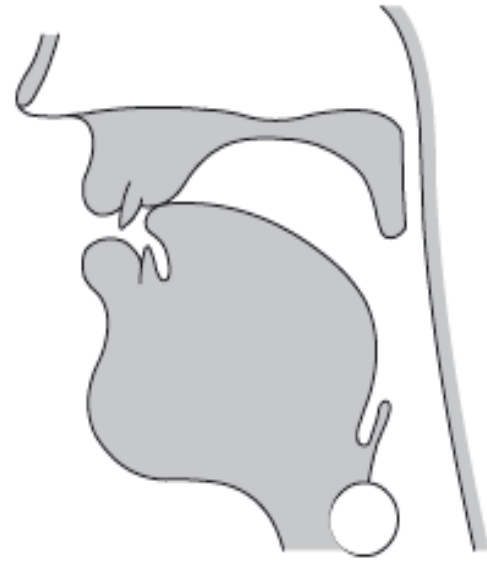
- (4) **Alveolar Consonants** are made with the tongue tip coming near or touching the bony ridge behind the upper teeth, called the alveolar ridge. The two voiceless alveolars are /t/ as in *tiger* and /s/ as in *snake*. The four voiced alveolars are /d/ as in *dolphin*, /z/ as in *zebra*, /n/ as in *nightingale*, and /l/ as in *leopard*.



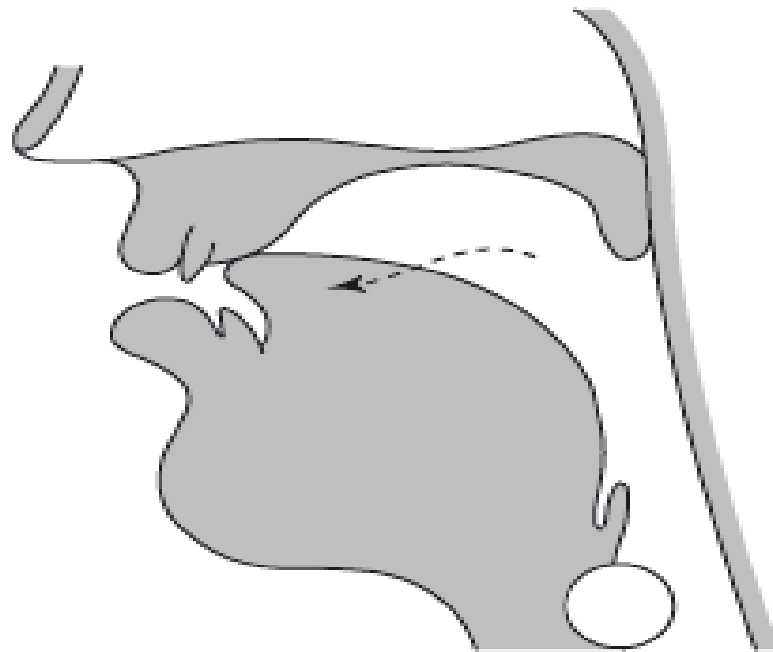
English /s/ and /z/



English /t/ and /d/

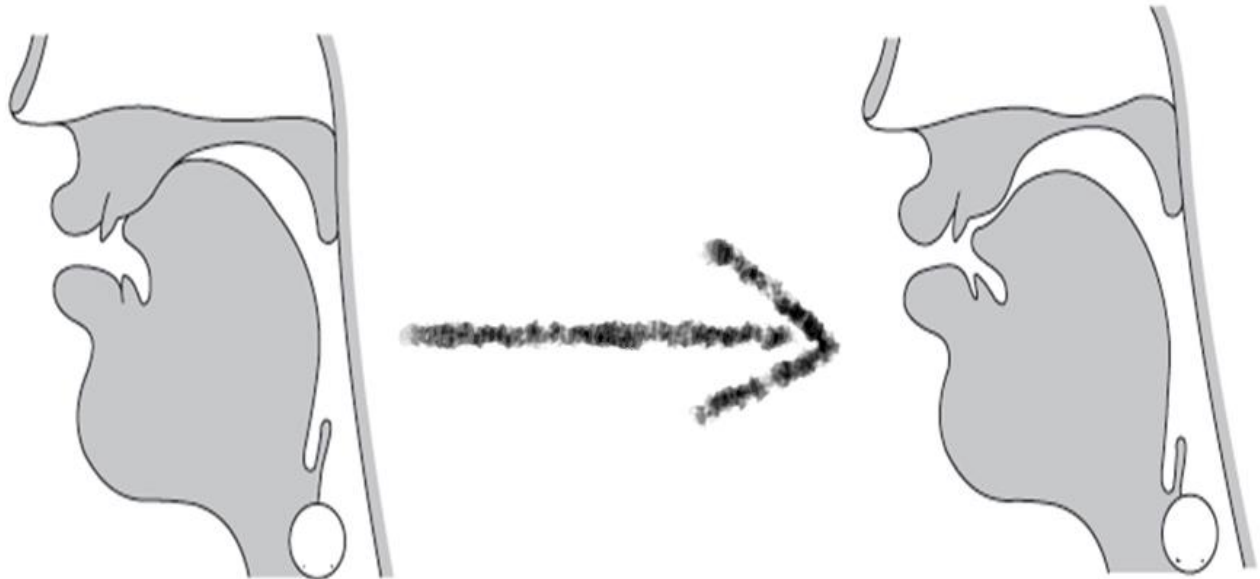


English /n/

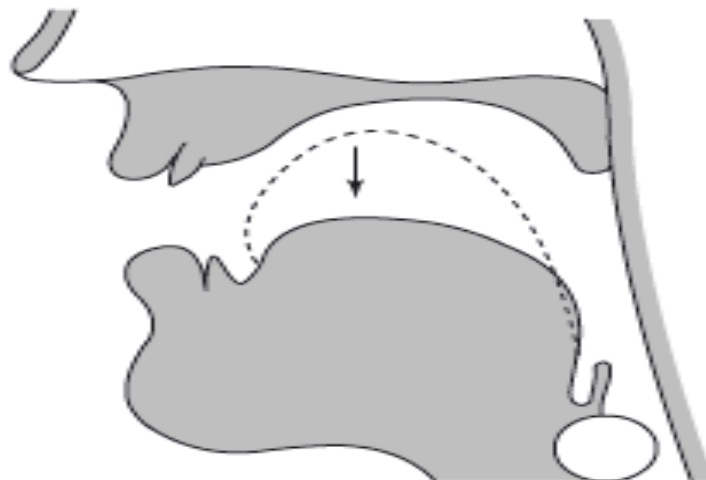


English /l/

- (5) **Palatoalveolar Consonants** are made with the tongue tip touching the alveolar ridge, and with a simultaneous rising of the blade of the tongue towards the hard palate. The two voiceless palate-alveolars in English are /tʃ/ as in *cheese* and /ʃ/ as in *sherry*. The two voiced palate-alveolars are /dʒ/ as in *gin* and /ʒ/ as in *measure*.

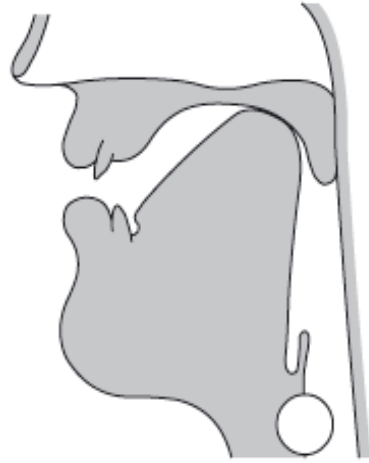


- (6) **Palatal Consonants** are produced when the body of the tongue comes near or touches the (hard) palate. The voiced /j/ as *yes* is the only palatal in English.

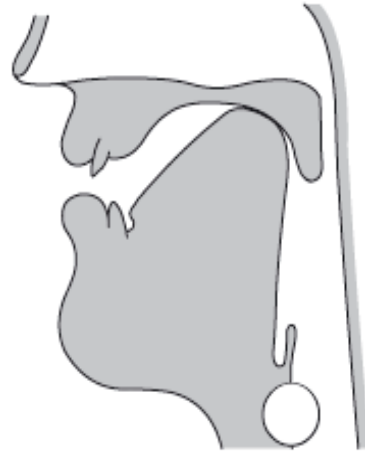


English /j/

- (7) **Velar Consonants** are made by placing the back of the tongue against the velum, or soft palate, there is one voiceless velar in English, namely /k/ as in *Canada*, whereas there are three voiced velars, /g/ as in *Greenland*, /ŋ/ as in *England*.



English /k/ and /g/



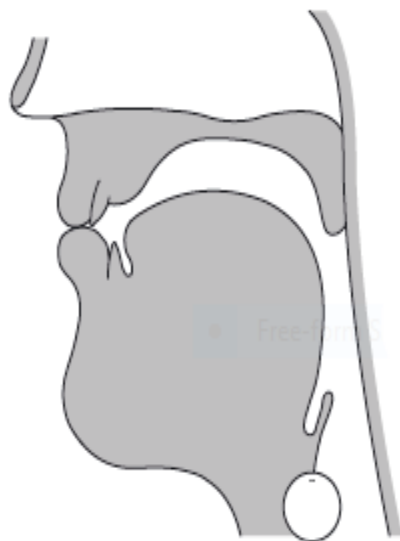
English /ŋ/

- (8) **Glottal Consonants** are produced in the larynx when air passes through the glottis. The only English phoneme that is articulated in this way is the voiceless /h/ as in *hat*.

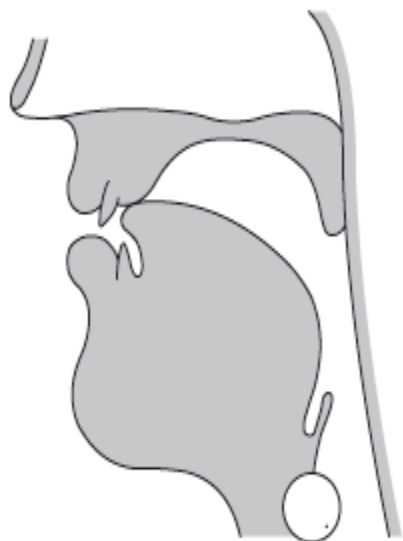
## 2. Classification of consonants according to manner of articulation

The manner of articulation refers to the type or degree of closure of the speech organs, and the air stream pattern movement in the vocal tract.

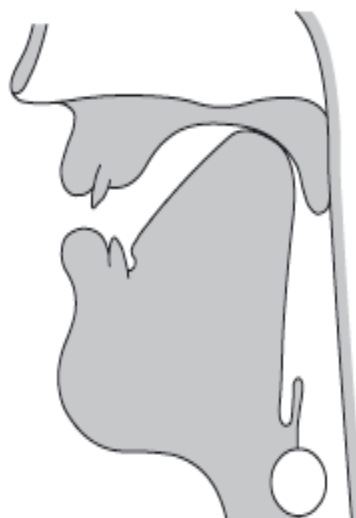
(1) **Plosives, or stops** are sounds for which the speaker makes a complete closure at some point in the vocal tract, builds up the air pressure while the closure is held, and then releases the air explosively through the mouth. English has three plosives, namely /p/ as in *peach*, /t/ as in *tiger*, and /k/ as in *Canada*, /b/ as in *banana*, /d/ as in *dolphin*, and /g/ as in *Greenland*.



English /p/ and /b/

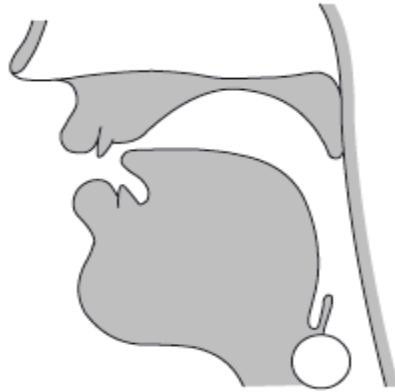


English /t/ and /d/

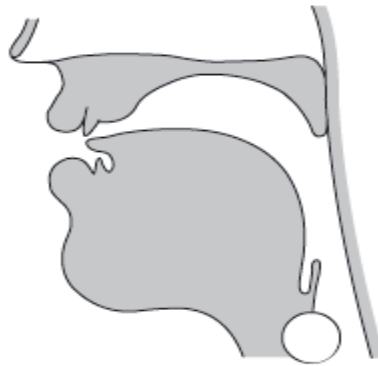


English /k/ and /g/

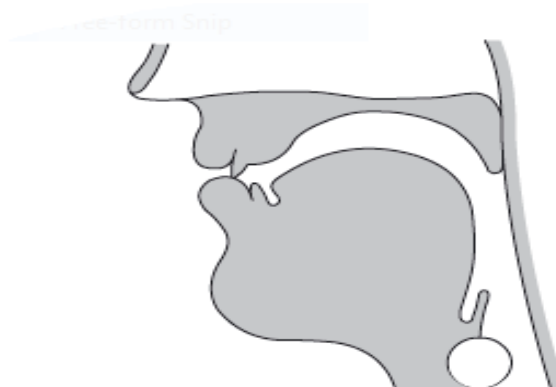
(2) **Fricatives** are made when air forces its way through a very narrow gap between two speech organs (partial closure), thereby producing an audible friction which are /f/, /v/, /θ/, /ð/, /ʃ/, /ʒ/, /s/, /z/, /h/.



English /s/ and /z/



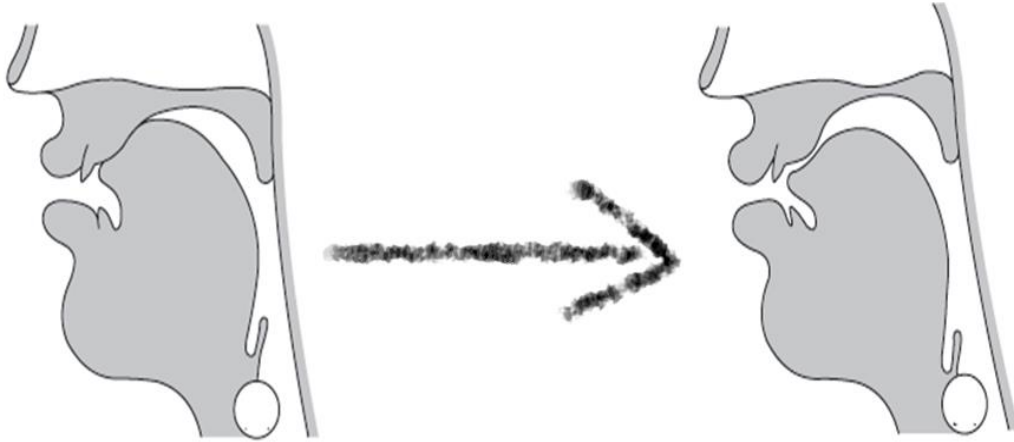
English /θ/ and /ð/



English /f/ and /v/

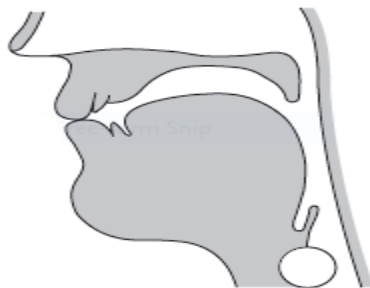


(3) **Affricates** are sounds that consist of two elements. The first element is a plosive. This means that affricates, too, require a complete closure in the vocal tract, but the air is released slowly enough through a narrow space to produce silent friction, which we hear as a hissing s-like sound which are /tʃ/, /dʒ/



Affricates [tʃ] and [dʒ] showing palato-alveolar closure      Affricates [tʃ] and [dʒ] showing release **silent friction**

(4) **Nasals** have a complete closure in the vocal tract as well. In the production of English nasals, usually all the air escapes through the nose (nasal cavity). The three English nasals are: /m/ as in *mango*, /n/ as in *nightingale*, and /ŋ/ as in *England*.



English /m/



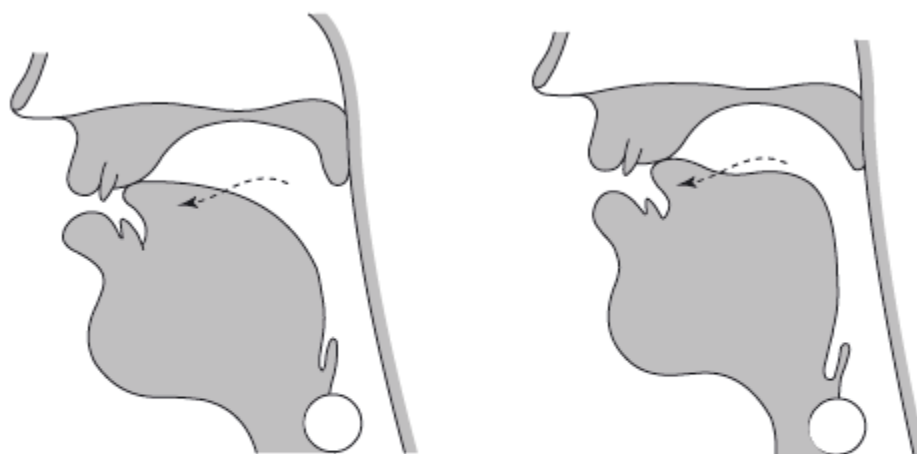
English /n/



English /ŋ/

(5) **Lateral, or more specifically lateral approximant**, is also made with air that *escapes around the sides of mouth* because there is a *central closure* in the vocal tract. English has only one lateral, namely the /l/ as in *leopard*, where the tip of the tongue touches the center of the alveolar ridge.

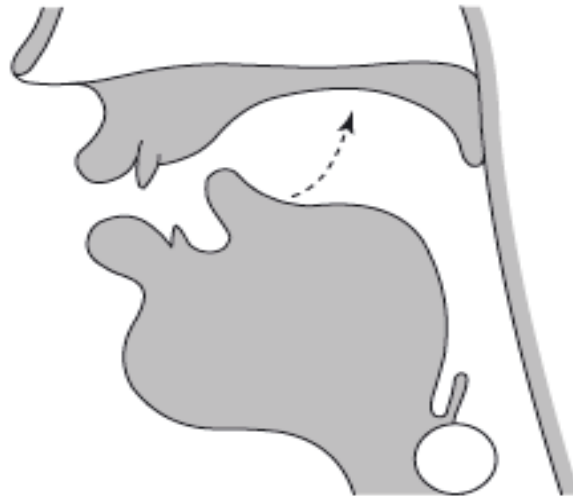
- In English language, it distinguished two ways for pronouncing the /l/ sound: either *clear/l/* or *dark/l/*
- The clear /l/ occurs whenever there is a *vowel sound* following it: line or lonely {the essence difference for the clear /l/ is the tongue become *palatalizes* (right figure)}
- The dark /l/ occurs whenever there is a *consonant sound* following it (ballbreaker, ballflower ) or it takes the *last position* in a word (ball, whole): {the essence difference for the dark /l/ is the tongue become *velarized* (left figure)}



English clear / (left) showing palatalised tongue shape, and dark / (right) showing velarised tongue shape. Arrows indicate lateral passage of the airstream over lowered sides of the tongue

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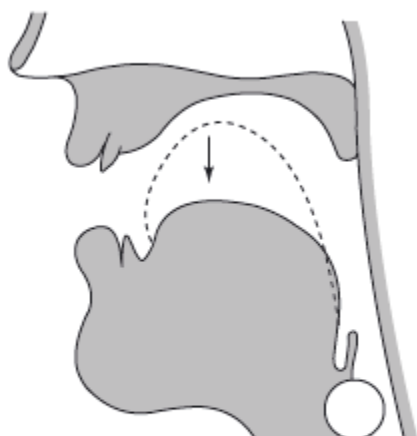
(6) **Retroflex approximants** are generally made with a wider gap between the speech organs than is the case in the production of fricatives. The speech organs approach each other (form a slight barrier but not enough), nevertheless they do not touch each other. The air is freely released outside. The English R. approximant is: /r/ as in *red*



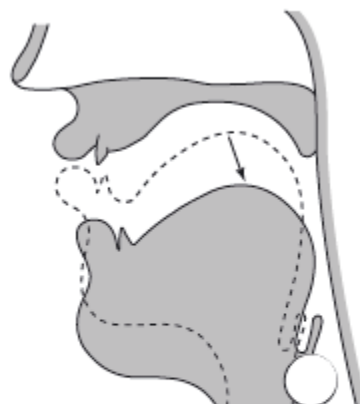
English /r/

(7) **Glide** manner, where the air smoothly comes out from the lungs.

You should remark that the /w/ and /j/ sounds are labeled as glides because of the pattern that the air streams takes in its way out: it is smoothly released.



English /j/



English /w/

		Places of Articulations							
		Bilabial	Labio-dental	Dental	Alveolar	Palate-alveolar	Palatal	Velar	Glottal
Manner of Articulations	Plosives/ stops	/p/ /b/			/t/ /d/			/k/ /g/	
	fricatives		/f/ /v/	/θ/ /ð/	/s/ /z/	/ʃ/ /ʒ/			/h/
	affricatives					/tʃ/ /dʒ/			
	nasals	/m/			/n/			/ŋ/	
	Lateral Approximant				/l/				
	Retroflex approximant				/r/				
	glides	/w/					/j/		

## Practices: (for self-evaluation)

1. identify (a) any oral stops, (b) any fricatives, (c) any approximants, (d) any affricates and (e) any nasals. For each sound that you identify, say whether it is voiced or voiceless and what its place of articulation is (e.g. the word stop: voiceless alveolar stop [t] and voiceless bilabial stop [p]; voiceless alveolar fricative [s]; no approximants, affricates or nasals). The words are: bring/ licking/ fever/ thinking/ assure/ measure/ heated.

2. Describe the articulation of the following sounds. Be sure to include information about the path of the airflow, the state of the vocal cords, the position of the velum and any obstruction in the oral cavity.

a. [b]

b. [ŋ]

c. [tʃ]

d. [s]

e. [θ]

3. Identify the difference in articulation between the following groups of sounds. For example, [p b t g] differ from [f s ʃ θ] in that the sounds in the first set are all stops and the sounds in the second set are fricatives.

a. [p t s k] vs. [b d z g]

b. [b d g] vs. [m n ŋ]

c. [n l ] vs. [t d s]

d. [p b f v m] vs. [t d s z n]

e. [w j] vs. [l ]