**English Speech Sounds - 1 Consonants & Vowels**

**Defining Consonant:**

- Consonant is generally defined as the sound during the production of which friction is heard.

**Michael Ashby and John Maidment defines,**

- “Sounds made with a relatively close constriction or complete closure in vocal tract and that occur singly or in clusters at the edges of syllables are consonants.”

**How to describe consonants?**

**The nature of air stream**

- Whether it is pulmonic or not
- Whether it is egressive or ingressive
- Whether the sound is voiced or voiceless
- Whether the soft palate is raised or lower i.e.,
- Whether the air stream passes
  - through the mouth only (oral sounds)
  - through the nose only (nasal sounds)
  - through the mouth and the nose (nasalized sound)
- The place of articulation, i.e., where exactly the closure or narrowing takes place
- The manner of articulation, i.e., the kind of closure or narrowing
- 53 distinctive phonemes are articulated as international consonants, British R. P. consists of 24 distinctive phonemes while Gujarati Phonology has 31 distinctive phonemes as consonants
- See the tables of all three consonant systems

**Plosive (Stops)**

- One articulator is moved against another, or two articulators are moved against each other, to form a stricture that allows no air to escape from the vocal tract. The stricture is, than, total.

**Four stages of plosive**

- The first phase is when the articulator or articulators move to form the stricture for the plosive. It is called the closing phase.
The third phase is when the articulators used to form the stricture are moved so as to allow air to escape. This is the release phase.

The fourth phase is what happens immediately after (iii), so it will be called the post-release phase.

**Place of articulation (plosive)**

- English has six plosive consonants /p, t, k, b, d, g/.
- The plosives have different places of articulation.
- The plosive /p/ and /b/ are bilabial since the lips are pressed together. For example:
  - Pack, back
  - rubber
  - Supper, river
  - happy
- /t/ and /d/ are alveolar since the tongue blade is pressed against the alveolar ridge. Normally the tongue does not touch the front teeth as it does in the dental plosives found in many languages. For examples:
  - Two, putting, heart
  - Done, ladder, side
- The plosives /k/ and /g/ are velar; the back of the tongue is pressed against the area where the hard palate ends and the soft palate begins. For examples:
  - Class, glass
  - Market, target
  - Back, bag

**Voiceless & Voiced**

- The plosives /p/, /t/, and /k/ are always voiceless.
- /b/, /d/ and /g/ are voiced.
- All six plosives can occur at the beginning of a word (initial position), between other sounds (medial position) and at the end of a word (final position).

**Fortis and lenis**:
**Aspiration**

- /p/, /t/, and /k/ are aspirated when occur at the position of first syllable, for example:
  - People
  - Table
  - Cricket

**Affricate**

- Affricates are produced by a complete closure of the air passage and a slow release causing friction.

**British R. P. sounds /ʧ/ and /ʤ/**

- The air passage in the mouth is completely closed due to a contact between the tip and the blade of the tongue and the teeth ridge, the rims of the tongue making a contact with upper teeth. The front of the tongue is also raised towards the hard palate. The soft palate is raised to shut off the nasal passage.

**Examples**

- Choice joke
- Catchinglodging
- Search age

**Fricatives:**

- Fricative consonants are produced by bringing two organs of speech nearer to each other in such a way that the air stream passes out through a narrow passage with audible friction. One can hear clear hissing sounds.
<table>
<thead>
<tr>
<th>Place of Articulation</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortis (voiceless)</td>
<td>f</td>
<td>œ</td>
<td>s</td>
<td>ʃ</td>
<td>h</td>
</tr>
<tr>
<td>Lenis (voiced)</td>
<td>v</td>
<td>ð</td>
<td>z</td>
<td>ʒ</td>
<td></td>
</tr>
</tbody>
</table>

**Examples**

- Fast \vast\ author \other
- Suffer \never\ show
- Leaf \leave\ mission pleasure
- Said \zone\ ash provision
- Looser \raising\ house
- Place \prize\ behind
- Think \that
- Mouth \breathe

**Nasals**

- For the production of nasal consonant, a complete closure is made in the mouth, but the soft palate is lowered and the air comes out through the nose.
- British R.P contains three nasal phonemes /m, n, ŋ/. They are articulated at bilabial, alveolar and velar position. For examples:

**Lateral**

- There is a complete closure in the middle and air comes out through the sides in the production of lateral sounds.
- British R. P has /l/ as a lateral consonant. It is articulated at alveolar in British R. P. /l/ is has two allophones clear /l/ and dark /ł/.
- it can be predicated that clear /l/ will never occur before consonants or before a pause, but only before vowels; dark /ł/ never occurs before vowels. In complementary distribution, it is to say that clear /l/ and dark /ł/ are allophones of the phoneme /l/.
**Consonant / r /**

- In British R. P., it is called a post alveolar approximant.
- R. K. Bansal says that the commonest variety of R.P / r / is produced by raising the tip of the tongue towards the back of the teeth ridge, a slight retroflexion, so to say, the air comes out through the mouth without any friction. The soft palate is raised to shut off the nasal passage.
- / r / is articulated at post-alveolar, retroflex, trill approximant consonants.
- The distributional peculiarity of / r / in British R. P. is that the phoneme / r / is pronounced only before vowels and if it is not followed by vowel, it is remained silent and the preceding vowel is lengthen in its pronunciation. The following examples clarify both the situations

**Approximants:**

- It is an articulation in which the articulators approach each other but do not get sufficiently close to each other to produce a “complete” consonant such as a plosive, nasal or fricative.
- / j / and / w / are articulated as bilabial and palatal approximant consonants in British R. P.
- In earlier works on phonology they were known as ‘semivowels’

**Vowels**

- R.K.Bansal defines the vowel thus:
- “In the production of vowels the air from the lungs comes out in a continuous stream through the mouth, and the vocal cords vibrate to produce ‘voice’. There is no closure of the air passage and no narrowing that would cause friction”
- The cardinal vowel system was invented and developed by Daniel Jones who was Professor of Phonetics at University College London from 1921-1947. The system was first used in print in the first edition of Jones’s *English Pronouncing Dictionary*. The following figure helps to understand the place and the manner of the articulation of the cardinal vowels explicitly.

**Cardinal vowels**

- The philologists have therefore described three ways to arrive at accuracy during the articulation of vowel sounds:
  - The position of the soft palate is raised for oral vowels and lowered for nasalized vowels
  - The kind of aperture formed by lips - degrees of spreading or rounding
  - The part of tongue which is raised and the degree of its rising

**Pure vowels (front)**

- Pure vowels:
/i:/  as in reach
/ɪ/  as in win
/e/  as in pen
/æ/  as in bat
/ʌ/  as in luck
/ɑ:/  as in last
/ɒ/  as in box
/æ:/  as in purse
/ə/  as in banana
/ɔ:/  as in all
/u/  as in book
/u:/  as in zoo
/ei/  as in late
/ai/  as in white
/oɪ/  as in boy
əʊ/  as in close *Diphthongs*

/au/  as in now
/əʊ/  as in really
/eə/  as in hair
/uə/  as in poor