Laryngeal, place and manner features

Distinctive Features

[+/-voice]

[+voice] distinguishes between those consonants that are associated with vibrating vocal cords and those which are not.

[+ voice] sounds are produced with airflow through the glottis, in which the vocal cords are close enough together to vibrate. These include the glides, sibilants and voiced obstruents, such as the /b/, /m/, /n/ and /l/ of /velar nasal/ (G indicates primary accent, / indicates secondary stress).

[-voice] sounds are those produced with the vocal cords apart, and is relevant primarily to obstruents, such as the /s/ and /f/ of /esp/.

From Mike Davenport's Introduction to Phonetics and Phonology.

[+/-SG]

[+spread glottis] Pushing the vocal cords wide apart augments the airflow through the glottis and inhibits voicing. This gesture, which is associated with voicelessness and aspiration, is absent in non-spread sounds.

Spread sounds include aspirated stops; murmured and breathy voice sounds, voiceless vowels and voiceless glides. All other sounds are non-spread.

[+/-CG]

The constricted glottis features denotes the degree of closure of the glottis.

[+CG] implies that the vocal folds are held closely together, enough so that air cannot pass through momentarily, while [-CG] implies the opposite.

Examples of [+CG]: ? (glottal stop)

p’ (ejectives)

Place features

- UNARY features:
  - LABIAL (lips)
  - CORONAL (tongue tip/blade)
  - DORSAL (tongue body)
**LABIALS**
- Sounds that are made using the lips.
- For vowels, an extra feature of [+/-round] is added here.

  [+round]  [-round]
  w, u, o  p, m, l, e

**CORONAL**
- There are 4 features within CORONAL
- The first one is [+/-anterior]
- [+/-anterior] basically means if the segment is articulated in the front of your oral cavity, i.e. the area from the alveolar ridge and outside.

  [https://www.youtube.com/watch?v=4KDkHvksAE](https://www.youtube.com/watch?v=4KDkHvksAE)

**[+/-anterior]**

  [+ant]  [-ant]
  θ, t, s  t, ç

**[+/-distributed]**

  [+dist]= blade  e.g. s, t, d, θ, ð
  [-dist]= tip  e.g. t, d, z, s

- Distributed sounds are made with an obstruction extending over a considerable area along the middle-line of the oral tract; there is a large area of contact between the articulators. In non-distributed sounds, there is a smaller area of contact.

**[+/-strident]**

There are two conditions for a sound segment to be [+strident]

If the airstream is through the tongue blade + aimed at the teeth

e.g. s, z, t, d are [+strident]
θ, t, d, l are [-strident]

**[+/-lateral]**


Sounds that are pronounced when the airstream proceeds along the sides of the tongue.

e.g. ɮ, ɭ, ɬ, ɫ, ʎ
Dorsal sounds, i.e. sounds that are distinguished due to the position of the tongue body or modifications of the airstream by the tongue body are categorised further on the basis of tongue height and frontness. Therefore, the different dorsal features are:

- [+/- high]
- [+/- low]
- [+/- back]

Manner features mainly characterise the way in which the airstream is obstructed in the production of a consonant.

Continuants are produced by impeding, but not completely blocking, the flow of air through the glottis, or the pharynx or through the centre of the oral tract; noncontinuants are made by completely blocking the flow of air through the centre of the vocal tract.

Affricates, nasals and oral stops and laterals are non-continuant. All other sounds are continuant.

Nasal sounds include nasal stops like [m n] (which are made with complete blockage of air at the place where the articulators meet) as well as nasalised consonants, glides and vowels. All other sounds are oral.
Only fricatives and affricates can be strident. Acoustically, strident sounds are characterised by more random noise than that non-strident counterparts.

<table>
<thead>
<tr>
<th>Sound</th>
<th>[+/-strident]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed</td>
<td>[+]</td>
</tr>
<tr>
<td>Muted</td>
<td>[-]</td>
</tr>
</tbody>
</table>

[+/-Delayed Release] is only applicable to sounds produced in the mouth cavity and distinguishes stops from affricates.

In stops, the closure is released abruptly while in affricates it is released gradually: the initial hold phase of an affricate is similar to that of a stop but in the later release phase an affricate is like a fricative.

Prosodic features and natural classes!

Pre-class reading and videos:


Prosodic feature: Tone
https://www.youtube.com/watch?v=xxJUNj1sQ

Prosodic feature: Rhythm
https://www.youtube.com/watch?v=AbUaxzBPCrM

Prosodic feature: Syllable and foot
https://www.youtube.com/watch?v=JSWkB8qRQ

Prosodic feature: Stress
https://www.youtube.com/watch?v=MG06BLRgo