

Major Class Features

The first set of features accounts for differences among the major classes of segments: vowels, glides, and consonants.

[consonantal] This feature describes all sounds made with closure in the vocal tract greater than that needed for glides. The obstruents (stops, fricatives, and affricates), as well as liquids and nasals, are [+ consonantal].

[syllabic] This feature is characteristic of sounds that function as the nucleus of a syllable. This includes all vowels, as well as nasals and liquids when they function as syllable nuclei. Glides are never [+ syllabic].

[sonorant] All relatively noise-free sounds that can be sung on a held pitch are considered to be [+ sonorant]. This feature thus takes in vowels, glides, liquids, and nasals and excludes obstruent consonants.

[nasal] Consonants, vowels, or glides that are made with the velum lowered are all [+ nasal].

Combining these binary features enables us to describe the following classes of sounds: consonants, vowels, glides, syllabic consonants, liquids, and nasals. The matrix in Table 2.34 shows explicitly that each class of sounds is

Table 2.34 Major class features

	Obstruents	Vowels	Glides	Non-syllabic		Syllabic	
				liquids	nasals	liquids	nasals
[consonantal]	+	-	-	+	+	+	+
[syllabic]	-	+	-	-	-	+	+
[sonorant]	-	+	+	+	+	+	+
[nasal]	-	±	±	-	+	-	+

distinguished from the others by one or more binary feature values. The ± means that a class of sounds may be heard with either value: for example, vowels can be oral or nasal.

Place Features

The next set of features describes the places of articulation.

[anterior] Any sound articulated in front of the alveopalatal region is considered to be [+ anterior]. This includes the labial, dental, and alveolar sounds.

[coronal] Any sound articulated with the tongue tip or blade raised is [+ coronal].

These two features enable us to separate labials from dentals and alveolars and to distinguish the class of sounds made in front of the alveopalatal region from those made at or behind it as shown in Table 2.35. The following features characterize the placement of the body of the tongue, the area behind the tip and blade. These features, [high] and [back], are also used to describe vowels.

Table 2.35 Place of articulation features

	Labials	Dentals/ alveolars	Alveopalatals	Palatals/ velars
[anterior]	+	+	-	-
[coronal]	-	+	+	-

[high] Sounds produced with the tongue body raised are considered [+ high]. Palatal and velar sounds as well as high vowels are all [+ high].

[low] Vowels made with the tongue body distinctly lowered from a central position in the oral cavity are [+ low]. Both [h] and [ʔ] are [- low] since they are not made in the oral cavity.

[back] Any sound articulated behind the palatal region in the oral cavity is [+ back]. Both [h] and [ʔ] are [- back] since they are not made in the oral cavity.

We can now distinguish among the consonants produced behind the alveopalatal region. For English, we need only take note of the distinction among palatals, velars, and glottals, as shown in Table 2.36.

Table 2.36 Features for nonanterior consonants

	Palatals	Velars	Glottals
[high]	+	+	-
[back]	-	+	-