Manner Features

The next features characterize various manners of articulation. They enable us to distinguish among stops, fricatives, and affricates.

[continuant] Free airflow through the oral cavity means a sound is [+ continuant]; continuants thus include vowels, fricative consonants, glides, and r's; for l, see the discussion of the feature [lateral]. Nasal stops are [- continuant] since the airflow is through the nasal passage, not the mouth.

[delayed release] Only affricate consonants such as [c] and [j] are [+ delayed release]. This feature describes the slow release from a stop articulation typical of affricates.

[strident] This feature refers to what we may subjectively call the relative noisiness of both fricatives and affricates. It enables us to group certain fricatives and affricates together into a natural class. In English, [0] and [6] are [- strident], while [f], [v], [s], [z], [s], [2], [c], and [j] are [+ strident].

[voice] This feature refers to the state of the glottis. All [+ voice] sounds are voiced; all [- voice] sounds are voiceless.

[aspirated] This feature distinguishes unaspirated from aspirated consonants. It refers to a delay in the voicing onset of a voiced segment following the release phase of a voiceless consonant.

[lateral] This feature is used to distinguish the lateral liquids (varieties of l) from the nonlateral liquids (varieties of r). Both l and r may be considered to be [+ continuant] in English. In some languages, laterals pattern like noncontinuants, in others, like continuants.

The matrix in Table 2.37 presents the features needed to represent the consonants of English. Appended to this chapter on page 51 is a table that provides an articulatory grid of English consonants along with the features needed to describe them.

Table 2.37 Feature matrix for English consonants

	P	ph	b	-	t	è	d		k	Fp		9	ſ	٧		2		٥	1	1	ě	3	- 1	r	y		*	h	,
[syllabic]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[consonuntal]		+	+	+		+	+	+	*	+	+			+		+	+					+	*	+	-	-	-	*	+
[sonoreat]	-	-	-	+	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	-	-
[nesal]	-	-	-	+	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[anterior]		+		+	+	+	+	+	-	-	-	-	+	+		+		+	-	-	-	-		+	-	-	-	-	-
[coronal]	-	-	-	-	+	+	+	+	-	-	-	-	-	-		+		+	+		+	+	+	+	-	-	-	-	-
[high]	-	-	-	-	-	-	-	-		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-		+	+	-	-
[low]	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[beck]	-	-	-	-	-	-	-	-	+	+		+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-
[continuent]	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+		+	+	+	-	-	+			+	+	+	-
[delayed release]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
[strident]	-	-	-	-	-	-	-	-	-	-	-	-	+		+		-	-	+	+	+		-	-	-	-	-	-	-
(voice)	-	-	+	+	-	-	+		-	-	+	+	-	+	-		-	+	-		-		+		+	+	-	-	-
aspirmed]	-		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
[laseral]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-

Vowel Features

Some of the features used to describe consonants are also used to describe vowels. Remember that vowels are made by shaping the body of the tongue in various ways within the oral cavity. The tongue body features [high], [low], and [back] are used to describe the vowels in the same manner as presented in the traditional articulatory description. Two other important features must be introduced.

[round] This feature refers to vowels made with lip rounding, such as [ow] and [uw].

[tense] This feature characterizes vowels that are generally longer and made with a more constricted tongue position than that used for the lax vowels. It is used in English to distinguish between the sets of vowels that are otherwise described with the same features, such as [iy] and [i], [ey] and [c], [uw] and [u], the former in each case being [+ tense] and the lax vowels being described as [- tense].

[reduced] This feature refers only to the vowel schwa [a] and distinguishes it from [a].

The matrix in Table 2.38 illustrates the application of the feature system to English vowels. All vowels are [+ syllabic], [- consonantal], and [- sonorant]. Mid vowels are neither [+ high] nor [+ low]. Feature notation does not provide a convenient way to distinguish the diphthongs [ay] and [aw] from the other vowels. These diphthongs may be treated as vowel-glide sequences when using features.

Table 2.38 Feature matrix for English vowels

		_											
	iy	1	ey	c	æ	uw	U	ow	0	a	a	۸	. 2
[high] [low]	+	+	-	-	-	+	+	-	-	_	_	_	-
[low]	-	-	-	-	+	-	-	-	-	+	+	-	_
[back]	-	-	-	-	-	+	+	+	+	+	+	+	+
[round]	-	-	-	-	-	-	+	+	+	-	-	-	_
(tense)	+	-	+	-	_	+	-	+	_	_	+	-	_
[reduced]	-	-	-	-	-	-	-	-	-	-	-	-	+