

Table I. Features distinguishing the obstruents of SH

	s	p	t	c	k	b	d	j	g
<i>continuant</i>	+	-	-	-	-	-	-	-	-
<i>voiced</i>	-	-	-	-	-	+	+	+	+
<i>anterior</i>	+	+	+	-	-	+	+	-	-
<i>coronal</i>	+	-	+	+	-	-	+	+	-

2. Systematic Phonemes

The above description of SH syllable structure provides the basis for the classification of the segmental phonemes of SH into three groups. Obstruents /p t c k b d j g s/ are —*sonorant*, redundantly —*syllabic*; sonorants /m n h w y l r/ are +*sonorant*, —*syllabic*; vowels are +*syllabic*, redundantly +*sonorant*.

a) *Obstruents*. The obstruents of SH are distinguished on the basis of four features, *continuant*, *voiced*, *anterior*, and *coronal*, as shown in table I. (Table I shows both distinctive and non-distinctive values for these features.)

/s/ (e.g., *sat* ‘seven’) contrasts with the other obstruents by the feature value +*continuant*. /p t c k/ contrast with /b d j g/, respectively, by the feature *voiced*, which has — value for the first group and + value for the second group. Within these two groups of non-continuants, four articulatory positions are contrasted: +*anterior*, —*coronal* for the bilabial stops /p b/; +*anterior*, +*coronal* for the dental stops /t d/; —*anterior*, +*coronal* for the alveopalatal affricates /c j/; and —*anterior*, —*coronal* for the velar stops /k g/: *per* ‘tree’, *bar* ‘hair’, *tu* ‘you’, *dant* ‘teeth’, *car* ‘four’, *jage* ‘to waken’, *kam* ‘work’, and *gal* ‘cheek’.

For a few speakers /j/ is realized as dental [z], but also as the more common [dž], in some forms, for example *nəraj* [nəradž], [nəraz] ‘displeased’. The sequence /ph/ is realized as [f] by some speakers, rather than as the usual [p^h], as in *phul* [p^hul], [ful] ‘flower’. Word initial /s/ is realized as [S] rather than the usual dental [s] by some speakers for some words, for example *santi* [santi], [Santi] ‘peace’. Finally, a few speakers realize /t d/ sometimes with retroflexed variants, although most often with dental variants, as in *thik* [t^hik], [T^hik] ‘right’, and *dube* [dube], [Dube] ‘to sink’. (Contrast between retroflexed and dental systematic phonemes is discussed further in 3 below.)

Table II. Features distinguishing the sonorants of SH

	m	n	l	r	h	w	y
<i>nasal</i>	+	+	-	-	-	-	-
<i>coronal</i>	-	+	+	+	-	-	-
<i>lateral</i>	-	-	+	-	-	-	-
<i>voiced</i>	+	+	+	+	-	+	+
<i>back</i>	-	-	-	-	-	+	-

b) *Sonorants*. The sonorants of SH are distinguished on the basis of five features, *nasal*, *coronal*, *lateral*, *voiced*, and *back*, as shown in table II- (The features *coronal* and *voiced* are used to distinguish among obstruents: 2a. The features *nasal* and *back* are used to distinguish among vowels: 2c.)

/m n/ are distinguished from the other sonorants by the feature value +*nasal*; they are distinguished from each other by the feature *coronal*, paralleling the distinction between /p b/ and /t d/: *mare* 'to hit', *nace* 'to dance'.

/l/ is distinguished from the other sonorants, including /r/, by the feature value +*lateral*: *log* 'people', *roj* 'day'. /l/ is realized as a dark lateral (i.e., P-rules assign it the feature values —*coronal*, +*back*) after +*back* vowels and after /a/ preceded by morpheme boundary, as in *khul-al* [k^huɫaɫ] *khirki* 'open window'. Elsewhere it is realized as a dental lateral, as in *kila* 'nail'. /r/ is realized as an alveolar trill utterance finally, as in *mar* [mar] 'hit', and as an alveolar tap elsewhere: *ragre* [ragre] 'to apply polish'.

/h/ is distinguished from the other sonorants by the feature value —*voiced*; ¹¹ /w y/ are distinguished from /r/ by the feature *coronal*, and from each other by the feature *back*: *loha* 'iron', *nawa* 'new', *dāya* 'kind'.

c) *Vowels*. The eight oral vowels are distinguished on the basis of the four features *tense*, *high*, *low*, and *back*, as shown in table III.

¹¹ Following SPE [p. 307] the feature *high* could also be used to distinguish /h/ (—) from /w y/ (+). This would necessitate P-rules to give /h/ the feature value +*high* before +*high* vowels. We have chosen rather to use the feature *voiced*, even though P-rules would also be required to change —*voiced* to +*voiced* for /h/ after voiced obstruents, because a feature involving glottal action (*voiced*) seems much more relevant to /h/ than features such as *high* that involve tongue position. Tongue position has nothing to do with SH /h/ (or, for that matter, English /h/), nor with the glottal phones [h ɦ]. The feature *heightened subglottal pressure* [SPE, p. 321], here predictable from +*sonorant*, —*voiced*, could effectively distinguish /h/ in all environments. Because it is only mentioned in passing in SPE, however, we have not tried to incorporate this useful feature into our description.