

English Phonology

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- you can further specify the entity by adding features, but in phonology there is a **limited inventory of possible sounds**, therefore a **limited number of features**

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- all languages share the same set of distinctive features (voicing, nasality, etc) but employ them to different extents, whereas all languages do not share the same phonemes
- it suggests the **sub-atomic structure** of the phoneme

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 - English in- prefix: **in**accurate **in**tolerant **im**possible
- **phonetically motivated**, although to varying degrees of abstractness

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Possible distinctions = $2^{\text{no. of features}}$

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- **10 distinctive features** should be enough

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- for instance, the combination of the features $[\pm \text{High}]$ with $[\pm \text{Low}]$ yields only three possibilities rather than four
- the fourth, $[\text{+High}, \text{+Low}]$, is **impossible** by definition (the tongue can't be both high and low at the same time!)

- if we use **two** distinctive features, we have the following four possibilities:

	a	b	c	d
X	+	+	-	-
Y	+	-	+	-

Table 1 - Possible Outcomes of 2 binary features, X and Y

- if we use **three** distinctive features, we have the following eight possibilities:

	a	b	c	d	e	f	g	h
X	+	+	+	+	-	-	-	-
Y	+	+	-	-	-	-	+	+
Z	+	-	+	-	+	-	+	-

Table 2 - Possible Outcomes of 3 binary features, X, Y, and Z

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 - with a vocal cavity disposition which makes spontaneous voicing easy
 - relatively **free air passage** either through mouth or nose

- these three features provide the following distinctions among the sounds of language:

	Cons	Son	Syl
Obstruents	+	-	-
Nasals/Liquids	+	+	-
Glides	-	+	-
Vowels	-	+	+
Syl. Sons.	+	+	+

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 - most useful in **distinguishing /l/-sounds from /r/-sounds**

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 - produces non-periodic (noise) component in acoustic signal
- [Constricted Glottis]: produced with vocal cords drawn together (**glottalized** sounds)

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[+strident]		[-strident]
[f] [v]		[ɸ] [β]
[s] [z]		[θ] [ð]
[ʃ] [ʒ]		

Cavity Features

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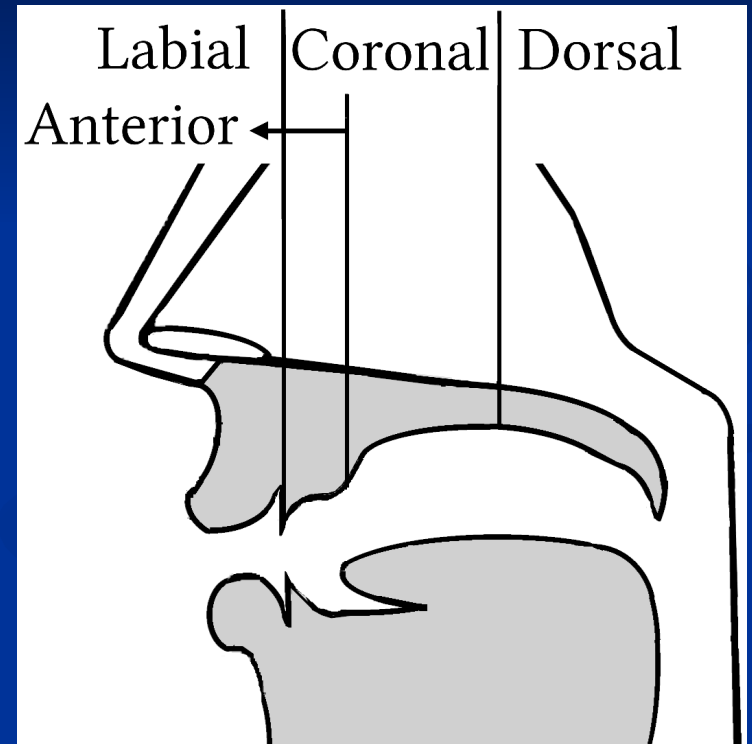
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- [Dorsal]: produced with an obstruction made with the **back of the tongue**

	p	t	tʃ	k
Ant	+	+	-	-
Cor	-	+	+	-
Labial	+	-	-	-
Dorsal	-	-	-	+

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 - a constriction that extends for a considerable distance along the mid-sagittal axis of oral tract (sounds produced with blade or front of tongue vs those made with tip)
 - useful for distinguishing among the fricatives:

	f/v	θ/ð	s/z	ʃ/ʒ
[Distrib]	-	-	+	+

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- [Low]: produced by **lowering** body of tongue below level it occupies in neutral position

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- [Del(ayed) Rel(ease)]: distinguishes stops from affricates
- [Tense]: involves **greater degree of constriction** than lax counterparts

The End