

## Natural classes

Distinctive features identify groups of segments → *natural segment classes*:

- They play a role in phonological processes and constraints;
- They are capable of characterizing natural segment classes (see above).

Nasalization of vowels,  
Devoicing of liquids and glides,  
Aspiration of stop,s  
etc.:

These processes do not apply to *one* sound: they apply to *classes* of sounds.

↓  
group of sounds whose members  
share one or more phonetic  
characteristics.

One of the major goals of phonology is to formulate *general statements* about sound patterns.

*Natural classes*: complete sets of sounds that share the same value for a feature or set of features.

Natural classes are language specific:

English: [p t k] -- these *three* sounds form a natural class.

Persian: [p t k q] -- there are *four* sounds in this natural class.

Study p. 43

The goal of characterizing natural classes:

Why not simply use the IPA labels – e.g., [+ stop], [+fricative], [+vowel], etc.?

We want to group sounds that undergo the *same phonological process*!

There are natural classes that are broader than the IPA categories, e.g. , the sounds that are defined with the feature [sonorant].

Study the examples on p. 74

A natural class is one in which the number of features that must be specified to define that class is *smaller* than the number of features required to distinguish any one of its members.

*p*      *t*      *k*

[ -continuant  
-voice ]

*t*

[ -continuant  
+anterior  
+coronal  
-voice ]