

Morphology

Morphemes

Allomorphs

E.g: English Noun Plural

Morpheme: {-Z₁}

Allomorphs: /-əz/, /-z/, /-s/

Conditioning environments

{-Z₁} → /-əz/ after sibilants *

{-Z₁} → /-s/ after vl segments

{-Z₁} → /-z/ elsewhere

*NB: This rule precedes the others,
since it has the most restrictive
environment.

Alternatively, this morpheme may be
treated as having only two allomorphs,
/-z/ and /-s/, with the /-əz/ form resulting
from an English rule of epenthesis that
inserts a /-ə-/ to separate the final sibilant
from the suffix (which also contains a
sibilant)

Since /ə/ is voiced (like all English
vowels), it will then automatically take
the /-z/ allomorph.

Phonology

Phonemes

Allophones

E.g: English Bilabial Stop

Phoneme: /p/

Allophones: [p^h], [p⁻], [p]

Conditioning environments

/p/ → [p^h] / # __ V_{stress}

/p/ → [p⁻] word-finally (optional)

/p/ → [p] elsewhere

Alternatively, the allophony of this
phoneme may be subsumed under the
general rule that aspirates initial
voiceless stops in English
(i.e. /t/, /tʃ/, and /k/ also have aspirated
allophones in the same environments).

Some Distributional Properties in Phonology

Phones: phonetic representations of actual sounds that occur in a language, without reference to the phonemes that they represent.

Allophones: phones considered as members of particular phonemes.
E.g. since the phones [t], [t^h], [r], and [ʔ] all represent the English phoneme /t/, [t], [t^h], [r] and [ʔ] are all allophones of /t/.

Phonemes: abstract representations of the 'distinctive' sound units of a language. Each phoneme has at least one allophone as its phonetic manifestation.

Minimal pair: a pair of words with different meanings that are phonetically identical, except that one word has one sound in a position where the other word has a different sound. Minimal pairs are used to show that two sounds are in contrast, i.e., that they represent different phonemes.

Environment: the phonetic position in which a sound appears.

Distributional relationships

Contrast: two sounds are in contrast if they occur in the same environment and the substitution of one for the other changes the meaning of the word (e.g. English [f] and [v] are in contrast given the minimal pair [fæt] 'fat' - [væt] 'vat').

Free variation: two sounds are in free variation if they occur in the same environment and can be freely interchanged with each other without changing the meaning of the word (e.g. English [d] and [r] are in free variation in [ɹá:yɹɹ]/[ɹá:yɹɹ] 'rider'). Two sounds in free variation with each other are allophones of the same phoneme.

Complementary distribution: two sounds are in complementary distribution if they never occur in the same environments; the 'distribution' (position of occurrence) of the one sound is the 'complement' of the distribution of the other (e.g. English [a] and [ã] are in complementary distribution since [ã] only occurs before nasal consonants and [a] occurs anywhere except before nasal consonants). Two phonetically similar sounds in complementary distribution are (probably) allophones of the same phoneme.