

## Introduction to phonology

Phonology is the study of the system and patterns of the speech sounds and how they work in the system of language.

The distinction between phonetics and phonology: phonetics and phonology both study the same aspect of language; speech sounds, but they differ in their approach and focus.

**Phonetics:** of general nature, it is interested in speech sounds used in all human languages: how they are produced, how they differ from each other, what phonetic features they possess and how they can be classified. The object is phone.

**Phonology** is interested in the system of sounds of a particular language; it aims to discover how speech sounds in a language form patterns and how these sounds are used to convey meaning in linguistic communication. Its object is phoneme.

| Phonetics                                     | vs. | phonology   |
|---|-----|---|
| Physical description of sounds                |     | Description of sound interrelation and function         |
| presence vs. absence of sounds                |     | complementary vs. contrastive distribution of phonemes  |
| presence vs. absence of features              |     | redundant vs. contrastive (phonemic) features           |
| narrow transcription in square brackets [ ]   |     | broad transcription in slanted brackets / /             |
| transcr. symbols the same across langs. (IPA) |     | transcription symbols generalized, unique to each lang. |

## Phone / phoneme/ allophone:

**Phones** can simply be defined as the speech sounds we use when speaking a language, i.e. individual sounds as they occur in speech. E.g. leaf, feel, top, stop /l/, /i:/, /f/, /t/, /p/ are sounds which are called phones.

**Phoneme:** it is the smallest sound unit that can distinguish meaning. It is the basic unit of phonological study. E.g. "pan/ ban". /p/ and /b/ are phonemes. A phoneme is a unit of distinctive value. However, it is an abstract unit, i.e. it is not a sound, it is a collection of distinctive phonetic features. In actually uttered speech, a phoneme is realized phonetically as a certain phone.

**Allophone** - A variant of a phoneme. The allophones of a phoneme form a set of sounds that (1) do not change the meaning of the word, (2) are all very similar to one another, and (3) occur in phonetic contexts different from one another - for example, syllable initial as opposed to syllable final. The differences among allophones can be stated in terms of phonological rules.

Allophones of one phoneme may occur in complementary distribution or in free variation.

Complementary distribution means that the allophones all appear in different environments within

words. For example, in English /p/ is pronounced [p<sup>h</sup>] at the beginning of syllables and [p] after /s/ (e.g. pill and spill).

If two sounds are allophones in free variation, they occur in the same environment but do not change the meaning of the word. An English example would be the difference between releasing a stop at the end of the word, or not releasing the stop at the end of a word. Here is an example with the English word cat: [k<sup>h</sup>æt] vs. [k<sup>h</sup>æf̥]. This change does not affect the meaning of the word.

Free variation is the interchangeable relationship between two phones, in which the phones may substitute for one another in the same environment without causing a change in meaning.

## Phonotactics:

It has often been observed that languages do not allow phonemes to appear in any order. A native speaker of English can figure out fairly easily that the sequence of phonemes /stre k s/ makes an English word ('strengths'), that the sequence /ble d / would be acceptable as an English word 'blage' although that word does not happen to exist, and that these quence /lv zg/ could not possibly be an English word. Knowledge of such facts is important in phonotactics, the study of sound sequences.

## Summary:

- A. Each phone represents a separate phoneme, /x/, /y/
  1. if you can find a contrastive pair and
  2. the sounds [x] and [y] are not in free variation, that is, there is a difference in meaning
- B. If there are no minimal pairs and distribution is complementary,
  1. the two (allo)phones [x], [y] are variants of the same phoneme /x/ and
  2. you must provide a phonological rule to explain the relation between the two variants.
- C. If there are no minimal pairs and distribution is free,
  1. the two (allo)phones [x], [y] are variants of the same phoneme /x/ and
  2. the variation is due to dialectal variation or personal linguistic habits.

## Algorithm for Problem-Solving in Phonology



