

## 1. DEFINITIONS

**1. PHONETICS** is the study of human speech sounds. It is the objective description of all the sounds used in human languages. Phonetics helps us to produce, identify, analyze and describe the sounds of any given language. But although a phonetician may distinguish 80 sounds in a language, a native speaker of that language may perceive only 30 of those sounds as meaningfully distinctive.

**2. PHONOLOGY** is the study of a sound **system** of a particular language. It helps us to discover how the native speakers of the language group sounds - how they perceive which sounds belong together; what phonetically different sounds they may think of as a single sound; and how some sounds are sub-sets of other sounds. **A good phonological description forms a basis from which we can help people decide how to symbolize their language effectively so that it can be written and read.**

A **PHONEME** is the smallest significant unit of a sound system. In English there are about 40 phonemes, made up of vowels, diphthongs and consonants. Phonetic sounds are written in square brackets [ ], while phonemic text is written in slanted brackets / /.

**ALLOPHONES** are the phonetic variations of a phoneme. Allophones do not occur haphazardly. They occur in patterns or according to rules in any given language. The native speaker knows these rules intuitively and speaks accordingly. A linguist's task is to discover these patterns and apply them in helping people work out a writing system for their language.

**CONTRAST IN IDENTICAL ENVIRONMENTS (CIE):** This is when each sound of a set (pair, triplet or more) of similar sounds being investigated is found to occur in a word with exactly the same sounds surrounding it, and each of the words has a different meaning.

e.g. comparing [p<sup>h</sup>] [f] and [v]  
We have [p<sup>h</sup>æt<sup>ɹ</sup>], [fæt<sup>ɹ</sup>] and [væt<sup>ɹ</sup>]

**CONTRAST IN ANALOGOUS ENVIRONMENTS (CAE):** This is when each sound of a set (pair, triplet or more) of sounds being investigated is found to occur in a word with similar sounds surrounding it, preferably with the sounds on either side being exactly the same.

|                  |           |         |
|------------------|-----------|---------|
| e.g. [e] and [i] | [weyotəl] | 'open'  |
|                  | [wiyotə]  | 'carry' |
|                  | [bətə]    | 'hole'  |
|                  | [dətə]    | 'stone' |

It is preferable to use more than one pair/set of examples for evidence.

Note: The sound symbolized with [a] in this textbook is actually [ɐ] in standard IPA. Because this sound occurs frequently in many languages, linguists often prefer to represent it as [a] on a keyboard (which is easier to produce there because it is part of the standard character set) or with [a] in handwriting.

**COMPLEMENTARY DISTRIBUTION (CD):** This is when each sound of a set (pair or triplet) of sounds being investigated is found to occur in a different sound environment.

e.g. comparing [p<sup>h</sup>] and [p] we have:

[p] occurs following [s]    [spæt]    'spat'  
 [p<sup>h</sup>] occurs elsewhere    [p<sup>h</sup>æt]    'pat'

The two phonetic sounds are allophones of the phoneme /p/.

Where we find Complementary Distribution (CD) for two or more phonetic sounds in a given language we are able to represent them with one symbol in the alphabet, unless social or other factors lead the speakers of the language to make other choices.

#### Key to Symbols

|    |                                    |          |
|----|------------------------------------|----------|
| C  | Consonant                          |          |
| V  | Vowel                              |          |
| ◌  | the sound is voiceless             | [ŋ̥]     |
| ◌̃ | the sound is nasalized             | [ã]      |
| ◌̚ | the sound is not released          | [t̚]     |
| ◌̥ | one sound only                     | [ts̥]    |
| '  | the following syllable is stressed | [te'sup] |
| :  | the sound is lengthened            | [te:sup] |