

Phonetics and Phonology

Before you study the phonetics of English, or in fact of any other language, you need first to understand what is meant by the term phonetics and understand the difference between the two related words '*phonetics*' and '*phonology*'.

A. Phonetics

The word phonetics comes from the Greek word 'phone' which stands for 'sound' or 'voice'. It refers to the branch of linguistics that deals with the sounds of speech and their production, combination, description and representation by written symbols. This representation is usually referred to as the phonetic *transcription* in which systems of phonetic writing are provided and aim at the accurate representation of any sequence of speech sounds. There are three corresponding branches of phonetics: *Articulatory* (the analysis of speech production), *Acoustic* (acoustic properties of production) and *Auditory* (the audition of speech production) phonetics.

↳ International Phonetic Alphabet (IPA)

As you might expect, studying the sounds of spoken language presents many unique challenges. To make it easier to represent speech sounds in written documents, researchers use the *International Phonetic Alphabet (IPA)*. Based on the Latin alphabet, the *IPA* was created by the *International Phonetic Association* as a standardized system of transcription to represent a human speech sounds by specific symbols. These symbols are enclosed in brackets [] or slashes / / to indicate that the transcription is phonetic and does not represent the spelling system of a particular language. For example, the sound spelled y in English *yes* is transcribed as [j]. The *IPA* is unique in that it is independent of any particular language and applicable to all languages.

In 2007, the *IPA* contained 107 distinct sounds with 56 additional diacritics and suprasegmentals in the *IPA* proper. However, symbols are occasionally added, modified, or removed by the consensus of the International Phonetic Association.

B. Phonology

The term phonology is derived from the Greek words 'phone' which stands for 'sound'/'voice' and 'logos' which means 'word'/'speech'. Phonology is the study of the *distribution* and patterning of speech sounds in a language. It also examines the *functions of sounds* within a given language. Therefore, Phonology studies the abstract sound systems of languages, rather than the actual physical articulation of all possible speech sounds (phonetics).

From among the huge variety of sounds made by even one speaker, we are able to recognize those which represent the "*same*" sound, although acoustically they are in fact different, and pick out those differences which systematically signal a difference in meaning. For example, "*flocks*" and "*phlox*" have exactly the same five **phonemes**¹. Similarly, "*bill*" and "*Bill*" are identical phonemically, regardless of the difference in meaning. A simple test to isolate these meaning-bearing units is the use of "*minimal pairs*", where pairs of words differentiate by one sound only: the three sounds in "*hot*" can be demonstrated by showing that the replacement of each in turn results in another word: **hot/cot, hot/hit, and hot/hop**. In this way, the phonemes of a particular language may be discovered. The test is limited but in English it allows the identification of over **40** phonemes.

The exercise also reveals *the patterns of sound combination* that are permitted in a language for example the combination /kt/ and fs would be impossible in English (that allows the discovery of *allophones*²) and /w r l/ cannot follow nasals: for example /nw/, /nl/, /nr/. In addition, at beginnings of words, /str/ is OK in English, but /zbf/, /ftr/ or /ʃtr/ are not (they are ungrammatical). Therefore, *Phonology is a grammar of phonetic patterns*.

The analysis of speech into individual segments (*vowels and consonants*) is known as *segmental phonology*. Analysis that focus on prosodic and paralinguistic features and their functions, (for example *stress, accent, and intonation*), which extend over units greater than the segment, (such as syllables and phrases) are known as *supra-segmental phonology*.

Phonetics and *phonology* may help to a language teacher in various ways. He/she may use the contrastive analysis of sound patterns between the native language and target language. In addition to this, examples of minimal pairs or exercises on problematic sounds may help students overcome problems in target language pronunciation.

Importance of Learning Phonetics and Phonology

Because of the confusing nature of the English spelling, it is particularly important to learn to think of English pronunciation in terms of phonemes rather than letters of the alphabet. So, it is important to learn the English phonetics mainly because there is not always a correspondence between the English spoken form and the written form.

- a) One sound may have many graphical representations. For example the English vowel /i:/ can be written:
- ea' as in **read**
 - 'ee' as in **sleep**
 - 'ie' as in **believe**
 - 'ei' as in **receive**

The English sound /f / may be represented by many letters

¹ *Phonemes*: are not letters; they refer to the sound of a spoken utterance.

² *Allophones*: variants of each phoneme that do not affect meaning in a language.

- 'f' as in **frame**
 - 'ph' as in **photograph**
 - 'gh' as in **enough**
- b) One graphical representation may refer to many sounds. For example the vowel 'a' can be pronounced
- /ei/ as in **shape**
 - /æ/ as in **cat**
 - /a:/ as in **last**
 - /i/ as in **shortage**

Letters and combinations of letters in English often have more than one pronunciation. One reason for this is that there are only **26 letters** to represent about **40 different sounds**. For example, the **digraph³"gh"** is silent in **dough**, but sounds like /f/ in **cough**, a hard /g/ in **ghost**, and a /p/ in **hiccough**. In Spanish and Italian, the letter a is always pronounced using the broad "a" (ah, as in father). However, the English words **fat**, **fate**, **fare**, and **far** each have a different "a" sound. So, people must memorize pronunciations that do not follow set rules .

Another reason, rules do not apply simply and regularly to the pronunciation of English is that the language has borrowed so much from other languages. Many borrowed words follow the pronunciation rules of the language from which they came rather than the rules for native English words. For example, in most cases an "e" added to the end of a word in English is silent. Its only purpose is to make the vowel before it long. Thus, in **cape** (pronounced /keip/) the "e" is silent, while the "a" is long. But in the word **cafe** the "e" is pronounced, while the "a" is short. **Cafe** is one of the words that we have taken from the French. The final "e" of the French word **cafe** has an acute accent over it. In English, we usually drop the accent marks of other languages but keep much the same pronunciation.

³**Digraph**: two letters representing one sound.