

PHONETICS AS THE STUDY OF THE ACTUAL SPEECH SOUNDS THAT CREATE
WORDS IN A LANGUAGE

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Abstract. *The relevance of this topic lies in the fact that English is an international language that is used almost everywhere, and phonetics plays an important role in the study of this language (the section of linguistics that studies the sounds of speech and the sound structure of the language), on the literacy of which it depends, they will understand you or not. The aim of the work is to study and identify the most important and necessary phonetic rules. To achieve the goal, it was necessary to solve the following tasks: to identify the classification of English sounds, to describe the peculiarities of pronunciation, to establish intonation coloring.*

Keywords: *sound structure of the language, phonetic rules, classification of English sounds, pronunciation features, intonation coloring.*

Introduction. Phonetics is a branch of linguistics that studies how humans produce and perceive sounds or, in the case of sign languages, the equivalent aspects of sign. Linguists who specialize in studying the physical properties of speech are phoneticians. The field of phonetics is traditionally divided into three sub-disciplines on questions involved such as how humans plan and execute movements to produce speech (articulatory phonetics), how various movements affect the properties of the resulting sound (acoustic phonetics) or how humans convert sound waves to linguistic information (auditory phonetics). Traditionally, the minimal linguistic unit of phonetics is the phone—a speech sound in a language which differs from the phonological unit of phoneme; the phoneme is an abstract categorization of phones and it is also defined as the smallest unit that discerns meaning between sounds in any given language.^[2]

Phonetics deals with two aspects of human speech: production (the ways humans make sounds) and perception (the way speech is understood). The communicative modality of a language describes the method by which a language produces and perceives languages. Languages with oral-aural modalities such as English produce speech orally and perceive speech aurally

(using the ears). Sign languages, such as Australian Sign Language (Auslan) and American Sign Language (ASL), have a manual-visual modality, producing speech manually (using the hands) and perceiving speech visually. ASL and some other sign languages have in addition a manual-manual dialect for use in tactile signing by deafblind speakers where signs are produced with the hands and perceived with the hands as well.

Language production consists of several interdependent processes which transform a non-linguistic message into a spoken or signed linguistic signal. After identifying a message to be linguistically encoded, a speaker must select the individual words—known as lexical items—to represent that message in a process called lexical selection. During phonological encoding, the mental representation of the words are assigned their phonological content as a sequence of phonemes to be produced. The phonemes are specified for articulatory features which denote particular goals such as closed lips or the tongue in a particular location. These phonemes are then coordinated into a sequence of muscle commands that can be sent to the muscles and when these commands are executed properly the intended sounds are produced.

These movements disrupt and modify an airstream which results in a sound wave. The modification is done by the articulators, with different places and manners of articulation producing different acoustic results. For example, the words *tack* and *sack* both begin with alveolar sounds in English, but differ in how far the tongue is from the alveolar ridge. This difference has large effects on the air stream and thus the sound that is produced. Similarly, the direction and source of the airstream can affect the sound. The most common airstream mechanism is pulmonic (using the lungs) but the glottis and tongue can also be used to produce airstreams.

Language perception is the process by which a linguistic signal is decoded and understood by a listener. To perceive speech, the continuous acoustic signal must be converted into discrete linguistic units such as phonemes, morphemes and words. To correctly identify and categorize sounds, listeners prioritize certain aspects of the signal that can reliably distinguish between linguistic categories. While certain cues are prioritized over others, many aspects of the signal can contribute to perception. For example, though oral languages prioritize acoustic information, the McGurk effect shows that visual information is used to distinguish ambiguous information when the acoustic cues are unreliable.

Main Body. Phonetics is the branch of linguistics that studies the sounds of human speech. In the context of the English language, phonetics is essential for understanding pronunciation, regional accents, and how sounds are articulated. Phonetics can be divided into three main branches:

Articulatory Phonetics: This focuses on how speech sounds are produced by the movement of speech organs like the tongue, lips, vocal cords, and palate.

Acoustic Phonetics: This examines the physical properties of sound waves, such as frequency and amplitude, as they travel through the air.

Auditory Phonetics: This deals with how the human ear perceives and processes speech sounds.

Key Phonetic Concepts in English

Phonemes

Phonemes are the smallest units of sound that can change the meaning of a word. For example: /b/ and /p/ in "bat" and "pat" represent different phonemes.

English has about 44 phonemes, including vowels, diphthongs, and consonants.

Vowels and Consonants

Vowels: These are sounds produced without any significant constriction of the airflow. English vowels include monophthongs (e.g., /i:/ as in "see") and diphthongs (e.g., /aɪ/ as in "my").

Consonants: These are sounds produced with some obstruction of the airflow, such as /t/, /k/, or /m/.

International Phonetic Alphabet (IPA)

The IPA is a standardized system used to represent speech sounds. It provides a consistent way to describe pronunciation across different languages and accents. For example:

The word "cat" is transcribed as /kæt/ in IPA.

Stress and Intonation

Stress: English is a stress-timed language, meaning certain syllables in words and sentences are emphasized more than others. For example, in "present" (noun: /'prezənt/) vs. "present" (verb: /pri'zent/), stress changes the meaning.

Intonation: The rise and fall of pitch during speech convey meaning and emotion. For instance, a rising intonation often indicates a question in English.

Common Phonetic Processes in English

Assimilation: When a sound becomes more like a neighboring sound (e.g., "input" pronounced as /'ɪnpʊt/ or /'ɪnpʊt/ with slight variation in the /n/ sound).

Elision: When sounds are omitted in fast speech (e.g., "friendship" may be pronounced as /'frɛnʃɪp/).

Linking and Intrusion: Sounds like /r/ are inserted between words to ease transitions (e.g., "law and order" pronounced as /'lɔ:r ən 'ɔ:də/).

Importance of Phonetics in English

Understanding phonetics is crucial for:

Language Learning: It helps non-native speakers improve their pronunciation and comprehension.

Speech Therapy: Phonetics aids in diagnosing and treating speech disorders.

Linguistic Research: It enables the study of dialects, accents, and sound changes over time.

Conclusion. Phonetics provides a detailed framework for analyzing and understanding the sounds of English, making it invaluable for linguists, educators, and learners alike.

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