

PHONETICS

Introduction:

Phonetics is the scientific study of speech sounds. It is a fundamental branch of Linguistics and has three different aspects:

Articulatory Phonetics – describes how vowels and consonants are produced or “articulated” in various parts of the mouth and throat.

Acoustic Phonetics – a study of how speech sounds are transmitted: when sound travels through the air from the speaker’s mouth to the hearer’s ear it does so in the form of vibrations in the air.

Auditory Phonetics – a study of how speech sounds are perceived: looks at the way in which the hearer’s brain decodes the sound waves back into the vowels and consonants originally intended by the speaker.

The Sounds of English and Their Representation

In English, there is no one-to-one relation between the system of writing and the system of pronunciation. The alphabet which we use to write English has 26 letters but in English there are approximately 44 speech sounds. To represent the basic sound of spoken languages linguists use a set of phonetic symbols called the International Phonetic Alphabet (IPA). The chart below contains all of the IPA symbols used to represent the sounds of the English language. This is the standard set of phonemic symbols for English (RP). Speech can be seen as controlled breathing. An utterance begins with a breath. As we exhale, we modify the flow of air in a variety of ways to produce the various sounds of speech – the individual segments of sound or phonemes as well as the supra- segmental or prosodic features of stress and intonation.

As the breath passes through the larynx, it passes the vocal folds. If we choose to, we can allow these to be set in motion by the air. The resulting vibration is the source of our voice. Some phonemes are voiced in this way, while others are voiceless. All vowels are voiced. Consonants are either voiced or voiceless. The following explanation focuses on the way in which consonants are articulated. There are three characteristics to each consonant: the manner of articulation, the place of articulation and whether or not the sound is voiced.

CONSONANTS

We can define a consonant by reference to three characteristics:

- The point of articulation -where in the vocal tract it is made
- The type of articulation – how we make it
- Whether the sound is voiced or unvoiced

Plosives:

One way of making a consonant is to block the flow of air so that pressure builds up, and then suddenly release it. Consonants formed in this way are referred to as plosives or stops.

Point of articulation	Voiced	Voiceless	Examples
The two lips (bilabial)	b	p	bat/pat
Tongue tip and tooth-ridge (alveolar)	d	t	dug/tug
Back of tongue and soft palate or velum (velar)	g	k	big/pick

Fricatives

Some consonants are produced when air is forced through a narrow opening. These are known as fricatives.

Point of articulation	Voiced	Voiceless	Examples
Lip and teeth (labio-dental)	v	f	vat/fat
Tongue-tip and teeth (dental)	ð	θ	that/think
Tongue and tooth-ridge (alveolar)	z	s	peas/peace
Tongue and hard palate (palatal)	ʒ	ʃ	measure/mesh
The glottis is partially constricted (glottal)		h	hat

Affricates

A plosive and a fricative are pronounced together.

Point of articulation	Voiced	Voiceless	Examples
Palate and tooth-ridge	dʒ	tʃ	judge/church

Nasals

The air exits through the nose rather than the mouth. All nasals are voiced.

Point of articulation	Voiced	Voiceless	Examples
The two lips (bilabial)	m	-	mine
Tongue tip and tooth ridge (alveolar)	n	-	nine
Tongue and soft palate (velar)	ŋ	-	sing

Approximants: The remaining four consonants of English are less clear-cut. Some may be realised in a number of ways. There are several quite distinct /l/ and /r/ sounds.

Point of articulation	Voiced	Voiceless	Examples
Tooth-ridge (alveolar)	l	-	lot
Hard palate (palatal)	r	-	rot

Two consonants are similar to vowels in that there is no real contact between vocal organs. These two are known as **glides**.

Point of articulation	Voiced	Voiceless	Examples
The two lips (bilabial)	w	-	win

Tongue and hard palate (palatal)	j	-	you
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VOWELS

Phoneticians also identify vowels by their point of articulation. Vowels are classified into three groups: short, long and diphthongs.

	Long vowels	Diphthongs
i	pit	
e	pet	
æ	pat	
ʌ	cut	
ɒ	cot	
ʊ	put	
ə	about	
ai	file	A diphthong consists of two vowels pronounced consecutively in one syllable.
ei	fail	
ɔɪ	foil	The mouth moves smoothly from one position to the other.
əʊ	foal	
aʊ	foul	
ʊə	poor	
ɪə	pier	
eə	pair	

STRESS & INTONATION

Stress is defined as using more muscular energy while articulating the words. When a word or a syllable in word is produced louder, lengthier, with higher pitch or with more quality, it will be perceived as stressed. The prominence makes some syllables be perceived as stressed. Words including long vowels and diphthongs or ending with more than 1 consonant are stronger, heavier and stressed. English words have one or more syllables. A syllable is a complete sound unit. In words containing more than one syllable, one or sometimes two syllables prominent, that is , they receive the stress or accent. The more prominent of the syllable receives the primary accent and the other receives the secondary accent. While the primary accent mark comes above the syllable the secondary accent mark comes below the syllable. The accentual pattern of English words does not rigidly conform to any set of rules and one should learn to speak with the right accent by being exposed to the right models of speech.

Stress: basic rules and functions

The students need to learn the concept about words stress and sentence stress.

In some languages, every syllable is given about the same length while in others, syllables vary in length. In English, strong beats are called stress.

In words of more than one syllable, one of them will receive more stress than the others. Stressed syllables are those that are marked in the dictionary as stressed. Stressed syllables are usually longer, louder, and higher in pitch.

In English, stressed syllables are usually long syllables with clear vowel sounds. The word “banana”, for example, has 3 syllables. Syllable 1 is not stressed and so is short. Syllable 2 is stressed and so is long with a clear vowel sound. Syllable 3 is not stressed and so is also short.

Stressed syllables are strong syllables and unstressed syllables are weak syllables. Stressed syllables are usually long, have a pitch change and have full vowel sounds while unstressed syllables are short and often have a reduced vowel sound.

In an English utterance, stressed words give information to the listener and unstressed words join the information words together. Correct pronunciation of stressed and unstressed words is thus extremely important for effective communication in English.

Information words in a sentence are usually nouns, verbs, adjectives, and adverbs. They give information about *who*, *what*, *when*, *where*, *why*, and *how*. They express the main idea or content of the phrase or sentence. They carry the message and therefore usually stressed. Unstressed words are usually function words like articles, pronouns, possessives, prepositions, auxiliary verbs, and conjunctions. These words connect the information words to form grammatical sentences. If you stress all the words in an utterance, you may sound unpleasant or

even cause misunderstanding because you are giving too much information, and English speakers usually stress all words only when they are impatient or angry.

Words that are often *Stressed*

Nouns, Main Verbs Adjectives Possessive Pronouns – *mine, yours, etc.*, Demonstrative Pronouns – *this, that, these, those**, Interrogatives – *who, what, when, where* Not / negative contractions – *can't, isn't, etc.* Adverbs – *always, very, almost, etc.*, Adverbial particles – *take off; do away with.*

Words that are usually *Unstressed*

Articles – *a, an, the, etc.*, Auxiliary (Helping) Verbs – *be, do, have, etc.*, Personal Pronouns – *I, we, you, he, she, it, they*, Possessive adjectives – *my, your, his, her, its, etc.*, Demonstrative adjectives – *this, that, these, those*, Prepositions – *to, for, with, etc.*, Conjunctions – *and, or, but, etc.*

English Intonation

We call the melody of language intonation. Intonation refers to the total pattern of pitch changes, i.e., the rising and falling of the voice when a person is speaking, within an utterance. Intonation is another important element of spoken English. It is the English intonation which makes English sound really English.

Intonation makes speech meaningful. English intonation adds the meaning of an utterance in two ways:

1. It shows the relationship of words within and between sentences;
2. It tells something about the feeling of the speaker.

In other words, different pitches may indicate different meanings for the same utterance. Different pitches help us express our feelings: happiness, sadness, surprise, annoyance, anger, and so on. In listening to the meaning of an utterance, therefore, we listen to how speakers talk as well as to what they say. The HOW and WHAT together give us the meaning of an English utterance.

We now see the importance to use the appropriate intonation patterns when we speak. Otherwise, we may be sending messages using intonations that contradict what we want words to say. Intonation patterns that disagree with the content of the utterance may indicate doubt, sarcasm, or confusion.

English has two basic intonation patterns: rising and falling. When they go together, they can make a falling-rising tone.

Intonation units are also called intonation-groups, tone groups or tone-units. An intonation unit usually corresponds to a sense group (or word group). An intonation unit may contain several syllables, some of them stressed and some unstressed. The last stressed syllable is usually a

marker of the highest importance and has the focus stress. On this syllable, there takes place a change of pitch, either an upward or downward movement, or a combination of the two.

