ТЕОРЕТИЧЕСКАЯ ФОНЕТИКА АНГЛИЙСКОГО ЯЗЫКА

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Теоретическая фонетика английского языка [Текст]: учебно-практическое пособие / сост. А.В. Зырянова. – Челябинск: Изд-во Юж.-Урал. гос. гуман.-пед. ун-та, 2016. – 154 с.

В пособии кратко и в доступной форме изложены основы теоретической фонетики современного английского языка в сопоставлении с фонетическим строем русского языка. Вопросы и упражнения к каждому разделу дают возможность закрепить изученный теоретический материал и усвоить его практическое применение. В конце пособия представлен словарь основных фонетических терминов и англо-русский словарь.

Предназначено для студентов педагогических университетов, углубленно изучающих английский язык.

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СОДЕРЖАНИЕ

ВВЕДЕНИЕ

Настоящее учебно-практическое пособие по теоретической фонетике английского языка предназначено для студентов педагогических университетов.

Роль и место теоретической фонетики в профессиональной подготовке выпускника обусловлены логической последовательностью изучения теоретических курсов. В системе языковых дисциплин по подготовке учителей иностранного языка теоретическая фонетика вместе с лексикологией, теоретической грамматикой и стилистикой составляют единый комплекс теоретических знаний по изучаемому языку.

Курс теоретической фонетики углубляет общеязыковую подготовку студентов, развивает их исследовательские навыки, расширяет профессиональный кругозор.

Цель пособия – помочь студентам – будущим учителям английского языка овладеть основами теории фонетики в тесной связи с практическим применением, что будет способствовать совершенствованию их навыков владения речью и более профессиональной подготовке к практической работе в общеобразовательных учреждениях.

При составлении пособия учитывались требования, изложенные в программе по теоретическому курсу фонетики английского языка:

– ознакомить студентов с состоянием науки о фонетическом строе английского языка на современном этапе;

– обобщить и углубить знания по фонетике, полученные студентами при изучении нормативного курса;

– развить у студентов умение делать самостоятельные практические выводы из наблюдений над теоретическим материалом и применять теоретические положения курса в преподавании английского языка.

Задача настоящего пособия – на основе систематизации элементов фонетической теории в краткой форме дать знания обо всех компонентах фонетического строя современного английского языка в сопоставлении с фонетическим строем русского языка.

Учебно-практическое пособие «Теоретическая фонетика английского языка» включает в себя 8 разделов. Каждый из разделов состоит из 4 частей: 1) теоретической части, 2) вопросов, 3) терминологического минимума, 4) упражнений.

В пособие включен словарь базовых понятий и терминов теоретической фонетики, а также англо-русский словарь.

CHAPTER 1

Phonetics as a Branch of Linguistics

1.1. The Subject-matter of Phonetics.
1.2. Branches and Divisions of Phonetics.
1.3. Methods of Phonetic Investigation.
1.4. Phonetics and Other Disciplines.
1.5. Practical Application and Theoretical Significance of Phonetics.

1.1. THE SUBJECT-MATTER OF PHONETICS

The word “phonetics" is derived from the Greek “φωνη” (sound).

Phonetics is not a separate science. It is a branch of linguistics, like the other branches, such as grammar, lexicology and stylistics. It studies the phonetic structure of the language, i.e. speech sounds, word stress, syllabic structure and intonation. These four components form the pronunciation of a language. Therefore, the knowledge of the phonetic system of the language and the mastery of its pronunciation involve the study and mastery of each component of its phonetic structure.

Phonetics is quite independent and develops according to its own laws. As an independent branch of linguistics, it has developed branches of its own.

Today the sphere of phonetics is wide and deep. It deals with phonemes and their distribution in words, their mutual adaptation, syllable formation, stress, intonation, the relation between oral and written speech and a number of other problems.

1.2. BRANCHES AND DIVISIONS OF PHONETICS

Speech sounds have four aspects: articulatory, acoustic, auditory, and functional (social). According to V.A. Vassilyev, these four aspects cannot be separated from one another in the actual process of communication, but each of these four aspects can be singled out for purposes of linguistic analysis and thus becomes a separate object of investigation, which necessitates the division of phonetics as a science into several branches. Each of these branches of phonetics has its own methods of investigation and its own terminology.

The branch of phonetics which is concerned with the study, description and classification of speech sounds as regards their production by the human organs of speech is called *articulatory phonetics*. It is the oldest, the most developed and productive branch of phonetics.

Acoustic phonetics studies the way in which the air vibrates between the speaker's mouth and the listener's ear, in other words, the acoustic aspect of speech sounds (their physical properties). It is sometimes called

experimental, *instrumental* or *laboratory phonetics*, because experimental methods and instrumental techniques are widely used here.

The branch of phonetics investigating the perception process is known as *auditory phonetics*.

The branch of phonetics that studies the functional (linguistic, social) aspect of speech sounds and all the other components of the sound matter of the language (syllabic structure, word stress and intonation) is called *phonology*. It investigates sounds as units that serve communicative purposes.

Besides the branches of phonetics described above, there are other divisions of phonetics.

Traditionally phonetics is divided into *general phonetics* which studies the nature of phonetic phenomena and formulates phonetic laws and principles and *special phonetics* which is concerned with the phonetic structure of a particular language.

Special phonetics is subdivided into *descriptive* and *historical*. Special *descriptive phonetics* studies the phonetic structure of the language synchronically (i.e. it studies its contemporary phonetic system), while *historical phonetics* looks at it in its historical development (diachronically). The study of the historical development of the phonetic system of a language helps to understand its present and predict its future. Historical phonetics is connected with general history and the history of the people whose language is studied. Historical phonetics uses the philological method of investigation, which consists in studying written monuments and comparing different spellings of one and the same word.

Closely connected with historical phonetics is *comparative phonetics* which studies the correlation between the phonetic systems of two or more languages.

Another important division of phonetics is into *segmental phonetics*, which is concerned with individual sounds (i.e. “segments” of speech) and *suprasegmental phonetics,* which deals with the larger units of connected speech: syllables, words, phrases and texts.

Phonetics can also be practical and theoretical. *Practical phonetics* studies the material form of phonetic phenomena in relation to meaning. *Theoretical phonetics* is mainly concerned with the functioning of phonetic units in the language.

There are branches of linguistics which are closely connected with phonetics because some phonetic information and facts are of great importance in their spheres of investigation. *Phonostylistics* studies phonetic phenomena and processes from the stylistic point of view. It studies the way phonetic means are used in this or that particular situation.

Another linguistic branch is *phonosemantics*. It investigates the connection between the sound form and the meaning. This connection may easily be observed in onomatopoeia (*ping-pong, cuckoo*). It is also realized in sound symbolism which implies that some sounds and some combinations of sounds may evoke different semantic associations. For example, some words beginning with *sl* are ugly and unpleasant (*slime, slush, slum, slug, slough, slash, slop, sludge*). Though there are lots of neutral words.

1.3. METHODS OF PHONETIC INVESTIGATION

Each branch of phonetics uses its own methods of research.

M.A. Sokolova states that phoneticians generally distinguish *methods of direct observation* (they are carried out without any other instruments of analysis than the human senses) and *instrumental methods*.

The methods of direct observation are the oldest, simplest and most available. They consist in observing the movements and positions of one's own or other people's organs of speech in pronouncing various speech sounds, as well as in analysing one's own muscle sense during the articulation of speech sounds and comparing them with the resultant auditory impressions. These methods can be effective only if a person using them is specially trained.

Instrumental methods were introduced into phonetics in the second half of the 19th century in order to supplement the impressions deriving from the human senses. They are based on the use of special technical devices, such as hand mirror, spectrograph, intonograph, oscillograph, x-ray photography and cinematography, CD records, laryngoscope and others.

These two ways of phonetic investigation are widely used in modern phonetics and combined in research work. The "subjective" methods of analysis by sensory impression and the "objective" methods of analysis by instruments are complementary. For instance, articulatory phonetics borders with anatomy and physiology, it uses methods of direct observation, whenever it is possible (lip movements, some tongue movements) combined with x-ray photography or x-ray cinematography,

observation through mirrors as in the laryngoscopic investigation of vocal cord movements, etc.

Phonology possesses its own methods of investigation (special linguistic methods), which help to interpret phonological and functional properties of sounds as socially significant elements. They will be described later in the course.

1.4. PHONETICS AND OTHER DISCIPLINES

Phonetics is one of the basic branches of linguistics and it is closely connected with the other linguistic disciplines: lexicology, grammar, stylistics. This connection is determined by the fact that language is a system whose component parts are inseparably connected with one another, and therefore the sciences that study these component parts must be interconnected too.

S.F. Leontyeva points out that phonetics formulates the rules of pronunciation for separate sounds and sound combinations. The rules of reading are based on the relation of sounds to orthography and present certain difficulties in learning the English language. Thus, vowel sounds are pronounced not only as we name the letters corresponding to them: the letter **a** [ei] can be pronounced as [æ] – *can*, [ɑ:] – *car*, [eə] – *care*.

Through the system of rules of reading phonetics is connected with grammar. It helps to pronounce singular and plural forms of nouns, the past tense forms and past participles of English regular verbs correctly (*to beg* – *begged* [d], *to wish* – *wished* [t]). Another manifestation of the connection of phonetics with grammar is sound interchange (or sound

alternation). This connection can be observed in the category of number (the interchange of [f –v], [s –z], [θ –ð] helps to differentiate singular and plural forms of such nouns as: *calf – calves*, *leaf – leaves*, *house – houses*). Vowel interchange is connected with the tense forms of irregular verbs (*sing – sang – sung, write – wrote – written*). It can also be observed in onomatopoeic compounds (*flap-flop*, *hip-hop*).

Phonetics is also connected with lexicology. Due to the accurate presence of stress, or accent, we can distinguish certain nouns from verbs (*'object* предмет – *to ob'ject* возражать). Due to the position of word stress we can distinguish between homonymous words and word groups (*`blackbird* дрозд - *'black `bird* черная птица). Besides we can differentiate homographs only due to pronunciation, because they are identical in spelling (*bow* [bəʊ] лук – *bow* [baʊ] поклон).

S.F. Leontyeva also notes that phonetics is connected with stylistics. First of all, through intonation and its components: speech melody, utterance stress, rhythm, pausation and voice timbre which serve to express emotions, to distinguish between different attitudes on the part of the author and speaker. Phonetics is also connected with stylistics through repetition of words, phrases and sounds. Repetition of this kind serves the basis of rhythm, rhyme and alliteration. Onomatopoeia, a combination of sounds which imitate sounds produced in nature, is one more stylistic device which can serve as an example of the connection between phonetics and stylistics (*tinkle, jingle, clink, ting, chink; clap, dab, smack; crash, bang*).

Phonetics is also closely connected with a number of non-linguistic disciplines which study different aspects of speech production and speech

perception: physiology, anatomy, physics (acoustics). Mathematics, statistics, logic and computer science are used in phonetic research too.

1.5. Practical Application and Theoretical Significance of Phonetics

Phonetics is indispensable to the teaching of the pronunciation of foreign languages. The teachers have to know the sound system of the pupil's mother tongue and the sound system of the foreign language to be learnt so that they can help the pupils to master its pronunciation. It is necessary to be able to point out the differences between these two languages and to provide adequate training exercises. Ear training and articulation training are both equally important in modern language teaching.

For those who work in speech therapy (logopedics) phonetics forms an essential part of the professional training syllabus. Phonetics also enters into the training of teachers of the deaf and dumb people and can be of relevance to a number of medical and dental problems.

Phonetics is useful in such spheres as investigations in the historical aspects of languages, in the field of dialectology; designing or improving systems of writing or spelling (orthographies for unwritten languages, shorthand, spelling reforms), in questions involving the spelling or pronunciation of personal or place names borrowed from other languages.

Phonetics contributes important information to the research in criminology aimed at identifying individuals by voices. It is also widely used in teaching correct pronunciation and good elocution to actors, singers, radio-announcers and other public speakers.

Nowadays phonetics is important in a number of technological fields connected with communication. The results of phonetic investigations are used in communication engineering. For example, phonetic data is needed for creating machines converting the printed symbols or letters into synthetic speech or automatic typewriters that convert speech directly into printed words on paper.

According to S.F. Leontyeva, *theoretical significance* of phonetics is connected with the further development of the problem of the synchronic study and description of the phonetic system of a national language, the comparative analysis and description of different languages, the study of the correspondences between them, the diachronic description of successive changes in the phonetic system of a language or different languages.

Questions:

1. How do you prove that phonetics is an independent branch of linguistics?
2. What are the four components of the pronunciation of a language?
3. What are the aspects of speech sounds?
4. What are the branches and divisions of phonetics?
5. What are the methods and devices of phonetic investigation?
6. How is phonetics connected with other sciences?
7. What is the practical application of phonetics?
8. What is the theoretical significance of phonetics?

Give definitions of the following phonetic terms: *acoustic phonetics, articulation, articulatory phonetics, comparative phonetics, descriptive phonetics, general phonetics, historical phonetics, phonetics, phonology, phonosemantics, phonostylistics, practical phonetics, segmental phonetics, supra-segmental phonetics, theoretical phonetics.*

Exercises:

1. Write the plural form of the following words and transcribe them. Use these examples to prove that phonetics is connected with grammar:

calf, loaf, wife, foot, basis, knife, thief, goose, crisis.

2. These pairs of words are homographs. Transcribe and translate them. Use these examples to prove that phonetics is connected with lexicology:

bow – bow, lead – lead, row – row, sewer – sewer, tear – tear, wind – wind.

3. Read the words and word combinations. Translate them into Russian and prove that phonetics is connected with lexicology through word stress:

'bluebell – 'blue 'bell, 'bluestone – 'blue 'stone, 'bluecoat – 'blue 'coat, 'blackface – 'black 'face, 'bluestocking – 'blue 'stocking.

4. Read and translate the following. State what phonetic means is used to form such compounds:

knick-knack, ping-pong, slip-slop, tip-top, zig-zag, shilly-shally, wishy-washy.

CHAPTER 2

Sounds of Speech as Acoustic and Articulatory Units

2.1. Acoustic Aspect of Speech Sounds.

2.2. Articulatory Aspect of Speech Sounds.

2.3. The Main Criteria of the Articulatory and Acoustic Classification of Speech Sounds.

2.4. The Articulatory Classification of English Consonants.

2.5. Differences in the articulation Bases of the English and Russian Consonants.

2.6. The Articulatory Classification of English Vowels.

2.7. Differences in the Articulation Bases of the English and Russian Vowels.

2.1. Acoustic Aspect of Speech Sounds

As V.A. Vassilyev points out*, sound* is a physical phenomenon, a kind of energy generated by some vibrating body (a string, a tuning fork or the vocal cords) set into vibration by the application of some external force (a blow or the pressure of air). This energy travels in waves through the air and another medium.

Sounds can be *periodical* (the vibrations of a physical body are rhythmical) and *non-periodical* (the vibrations are not rhythmical). The auditory impression of periodical waves is a musical tone. The auditory impression of non-periodical waves is noise.

The sound has a number of physical properties which all exist and manifest themselves simultaneously, but each of them can be singled out and separated from the others for purposes of analysis.

V.A. Vassilyev remarks that the first property is *frequency* which is the number of vibrations per second. Sound waves may follow one another at different rates of frequency. Therefore, the number of vibrations per second varies greatly.

Dependent on the frequency of vibrations is the *length* of the sound wave, i.e. the distance between the points having the same phase (position) in two adjacent waves. Wave length is proportional to the frequency of vibrations: the higher the frequency, the shorter the wave length. Our perception of the frequency of repeated pressures on the ear-drum is the *pitch* of the sound. The greater the frequency, the higher the pitch, and vice versa.

The frequency of the sound depends on the mass, length and tension of the vibrator. The greater the mass of the vibrator, the slower its vibrations, and the lower the pitch. Some people's vocal cords are thicker and heavier than those of others and their voices are lower than the voices of those with thinner and lighter vocal cords. The longer the vibrator, the slower the vibrations, the lower the frequency and the pitch. A man's voice is lower than a woman's partly because his vocal cords are longer. As the tension increases, the frequency increases and the pitch rises.

The second physical property of the sound is *intensity*, changes in which are perceived as variations in the *loudness* of the sound. The intensity is produced by the amplitude of vibrations and it is measured in

decibels. The intensity and frequency of the sound are closely interdependent.

Sounds can only exist and move in time. In other words, any sound has a certain *duration*. The duration, or length, of a sound is the quantity of time, during which the same vibratory motion is maintained. For this reason, the duration of a sound is often referred to as its quantity.

The duration of speech sounds is usually measured in milliseconds. In speech there are no definite boundaries between different speech sounds: one speech sound gradually passes into another. Therefore, it is extremely difficult to measure the length of speech sounds exactly.

These physical properties of speech sounds will be referred to further in this course.

2.2. Articulatory Aspect of Speech Sounds

Speech is impossible without the work of the following four mechanisms:

− the power mechanism

− the vibrator mechanism

− the resonator mechanism

− the obstructor mechanism

This division is not rigid, because the four mechanisms are closely interconnected and the speech organs forming part of one mechanism may form at the same time part of another mechanism.

The power mechanism consists of the diaphragm, the lungs, the bronchi, the windpipe (or trachea), the glottis, the larynx, the mouth cavity

and the nasal cavity. The function of this mechanism is to supply energy in the form of air pressure and to regulate the force of the air-stream.

The vibrator mechanism (the voice producing mechanism) consists of the vocal cords. They are in the larynx. They are two horizontal folds of elastic tissue. They may be wide open (for breath), completely closed (for glottal stop [ʔ]) and incompletely closed and vibrating (for voice). So voice is produced by the vocal cords vibration. The pitch of the voice depends on the frequency of vibration: the higher the frequency, the higher the pitch of the sound produced. The space between the vocal cords is called the glottis.

S.F. Leontyeva points out that according to the data of acoustic investigations there are two more sources that participate in the production of speech sounds besides the vocal cords: *the turbulent noise* (it results from some constriction in the flow of air) and *the impulse wave* (it is formed when the complete construction to the flow of air in the mouth cavity is suddenly broken). These sources of speech sounds can work separately or simultaneously. For example, the vocal cords produce vibration in the articulation of vowels, the turbulent noise helps to produce voiceless constrictive consonants [f, s, ʃ], the impulse wave helps to produce voiceless plosive consonants [p, t, k].

The resonator mechanism consists of the pharynx, the mouth cavity and the nasal cavity. These three cavities function as the principal resonator. It influences the formation of the sounds and their quality, i.e. its main function is to form the sounds and intensify them. Each cavity has boundaries, or walls, which are formed by various parts of the speech apparatus.

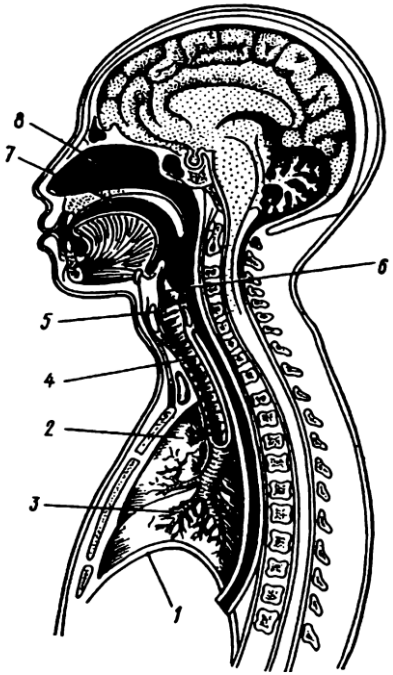


Fig. 1: 1 – the diaphragm, 2 – the lungs, 3 – the bronchi, 4 – the windpipe, 5 – the glottis, 6 – the larynx, 7 – the mouth cavity, 8 – the nasal cavity

Some of them are more or less soft and movable (the soft palate, the tongue, the lower jaw) while the others are hard and fixed (the teeth, the hard palate). *The obstructor mechanism* consists of the tongue, the lips, the teeth, the soft palate with the uvula, the hard palate and the alveolar ridge. This mechanism helps to create an obstruction for producing consonant sounds. There are two types of articulatory obstruction: *complete* (when

two organs of speech come in contact with each other and the air passage through the mouth is blocked) and *incomplete* (when an articulating organ is held so close to the point of articulation as to narrow or constrict the air passage without blocking it).

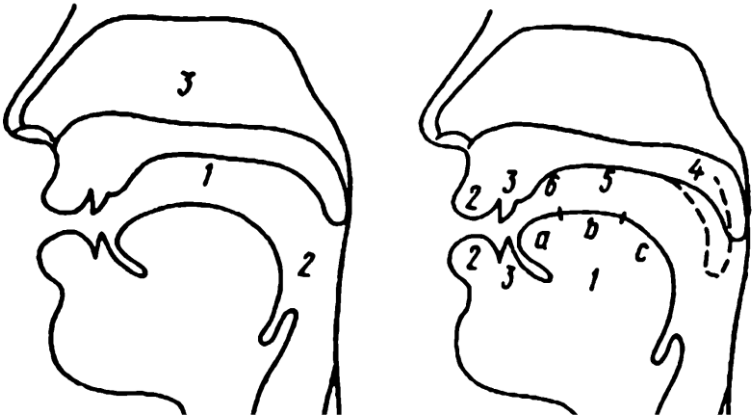


Fig. 2: 1 – the mouth cavity, 2 – the pharynx, 3 – the nasal cavity

Fig. 3: 1 – the tongue (a – the blade with the tip, b – front part, c – back part), 2 – the lips, 3 – the teeth, 4 – the soft palate with the uvula, 5 – the hard palate, 6 – the alveolar ridge

The bulk of the tongue can be approximately divided into the blade with the tip, the front part (middle part) and the back part (dorsum). The tip of the tongue can occupy a number of positions in the production of English and Russian forelingual consonants. The lips can be rounded,

slightly protruded or spread. The lower lip may move close to the upper teeth. The two lips can close to block the air stream. The teeth also act as an obstruction to the air stream. The upper teeth are the most important for the articulation. The alveolar ridge can be felt with the tip of the tongue as a corrugated ridge just behind the upper front teeth.

These four mechanisms work simultaneously and each speech sound is the result of the simultaneous work of all of them.

2.3. The Main Criteria of the Articulatory and Acoustic Classification of Speech Sounds

S.F. Leontyeva draws our attention to the fact that articulatory differences between vowels, consonants and sonorants depend on the following criteria:

- the presence or absence of an articulatory obstruction to the air stream in the larynx or in the supra-glottal cavities;
- the concentrated or diffused character of muscular tension;
- the force of exhalation.

On the basis of these criteria *consonants* may be defined as sounds in the production of which (a) there is an articulatory obstruction to the air stream (complete or incomplete); (b) muscular tension is concentrated in the place of obstruction; (c) the force of exhalation is rather strong.

Vowels may be defined as sounds in the production of which (a) there is no articulatory obstruction to the air stream; (b) muscular tension is diffused; (c) the force of exhalation is rather weak.

Sonorants are sounds intermediate between noise consonants and vowels because they have features common to both. The obstruction is complete or incomplete, but narrow enough to produce noise. Muscular tension is concentrated in the place of obstruction, but the force of exhalation is rather weak. English sonorants are: [m, n, ŋ, l, w, r, j].

2.4. The Articulatory Classification of English Consonants

Russian phoneticians classify English consonants according to the following principles:

– work of the vocal cords and the force of exhalation;

– active organ of speech and the place of articulation;

– manner of noise production and the type of obstruction;

– position of the soft palate.

1. According to the work of the vocal cords and the force of exhalation English consonants are divided into *voiced* [b, d, g, z, v, ð, ʒ, m, n, ŋ, l, r, j, w, dʒ] and *voiceless* [p, t, k, s, f, θ, h, ʃ, ʧ].

The force of exhalation and the degree of muscular tension are greater in the production of voiceless consonants therefore they are called “fortis”, which means “strong, energetic”. Voiced consonants are called “lenis”, which means “soft, weak”, because the force of exhalation and the degree of muscular tension in their articulation are weaker. The English consonants [h, m, n, ŋ, l, w, r, j] do not enter the fortis-lenis opposition according to some phoneticians. In Russian such energy contrast doesn’t play an important role.

2. According to the position of the active organ of speech against the place of articulation English consonants are classified into *labial*, *lingual* and *glottal*.

Labial consonants are subdivided into *bilabial* and *labiodental*. Bilabial consonants are produced with both lips. They are [p, b, m, w]. Labiodental consonants are articulated with the lower lip against the edge of the upper teeth. They are [f, v].

Lingual consonants are subdivided into *forelingual*, *mediolingual* and *backlingual*.

Forelingual consonants are articulated with the tip of the blade of the tongue. According to the position of the tip of the tongue they may be *apical* (articulated by the tip of the tongue against either the upper teeth or the alveolar ridge) – [θ, ð, t, d, l, n, s, z], *cacuminal* (articulated by the tongue tip raised against the back part of the alveolar ridge) – [r] and *dorsal* (there are no dorsal consonants in English). According to the place of articulation forelingual consonants may be *interdental, dental, alveolar, post-alveolar* and *palato-alveolar*. Interdental consonants are articulated against the upper teeth with the tip. They are [θ, ð]. Alveolar consonants are articulated with the tip of the tongue against the alveolar ridge. They are [t, d, s, z, n, l]. Post-alveolar consonants are articulated with the tip of the tongue against the back part of the alveolar ridge. In English it is [r]. Palato-alveolar consonants are articulated with the tip of the tongue against the alveolar ridge, but the front part of the tongue is raised towards the hard palate. They are [ʧ, ʤ, ʃ, ʒ]. There are no dental (articulated with the blade of the tongue against the upper teeth) consonants in English.

Mediolingual consonants are produced with the front part of the tongue raised high to the hard palate. In English it is [j].

Backlingual consonants are also called velar. They are produced with the back part of the tongue raised towards the soft palate. They are [k, g, ŋ].

The glottal consonant [h] is articulated in the glottis.

3. According to the manner of noise production and the type of obstruction English consonants can be classified in the following way. From the view point of the obstruction, which is formed in their articulation, they are *occlusive* (complete obstruction) and *constrictive* (incomplete obstruction).

According to the principle of voice or noise prevalence, Russian phoneticians suggest a subdivision of the group of occlusive and the group of constrictive consonants into *noise consonants* (in their production noise prevails over tone) and *sonorants* (in their production tone prevails over noise).

According to the manner of the production of noise, occlusive noise consonants are divided into *plosive consonants* or *stops* – [p, b, t, d, k, g] and *affricates* – [ʧ, ʤ]. In the production of plosive consonants, the speech organs form a complete obstruction which is then quickly released with plosion. In the production of affricates, the speech organs form a complete obstruction which is then released so slowly that considerable friction occurs at the point of articulation. They are also called *occlusive-constrictive* (there is a combination of the two obstructions).

There are different opinions on the nature of English affricates. The most extreme are the views expressed by B. Bloch and G. Trager who deny the existence of affricates as monophonemic entities and state that they

are biphonemic sequences. The other extreme point of view is that expressed by D. Jones and I. Ward who state that there are six or even eight affricates in the system of English consonants: [ʧ, ʤ, ts, dz, tr, dr, tθ, dð]. Russian phoneticians consider affricates as units which are articulatory and acoustically indivisible and morphologically unique. In English the only occlusive-constrictive consonants are [ʧ, ʤ].

In the production of occlusive sonorants [m, n, ŋ] the speech organs form a complete obstruction in the mouth cavity which is not released, the soft palate is lowered and the air escapes through the nasal cavity.

English constrictive noise consonants (*fricatives*) are [f, v, θ, ð, s, z, ʃ, ʒ, h]. In their production the speech organs form an incomplete obstruction.

In the production of constrictive sonorants, the air passage is fairly wide so that the air passing through the mouth does not produce audible friction and tone prevails over noise. Constrictive sonorants may be *median* [w, j, r] and *lateral* [l]. In the production of median sonorants, the air escapes without audible friction over the central part of the tongue, the sides of the tongue being raised. In the production of lateral sonorants, the tongue is pressed against the alveolar ridge or the teeth, and the sides of the tongue are lowered, leaving the air passage open along them.

4. According to the position of the soft palate all English consonants are divided into *oral* and *nasal*. When the soft palate is raised and the air from the lungs escapes through the mouth cavity, oral consonants are produced. When the soft palate is lowered and the air escapes through the nasal cavity, nasal consonants are produced. They are [m, n, ŋ].

2.5. Differences in the Articulation Bases of the English and Russian Consonants

S.F. Leontyeva differentiates some peculiarities of the articulation bases in English and in Russian which cause the differences in the systems of consonants in these two languages. They are the following:

1. The English forelingual consonants are articulated with the apico-alveolar position of the tip of the tongue. The Russian forelingual consonants are mainly dorsal: in their articulation the tip of the tongue is passive and lowered, the blade is placed against the upper teeth [т, т’, д, д’, н, н’, с, с’, з, з’, ч’, ц]. The Russian forelingual apical consonants are only [л, л’, ш, ш’, ж, ж’].

2. In the production of the Russian consonants the bulk of the tongue is mainly in the front-mid part of the mouth resonator. In the production of the English forelingual consonants the tip of the tongue and the front edges are very tense. It results in the depression in the front part of the tongue, which enlarges the size of the front resonator.

3. The English voiceless consonants [p, t, k, f, s, ʃ, ʧ] are pronounced more energetically than similar Russian consonants.

The English voiced consonants [b, d, g, v, ð, z, ʒ, ʤ] are not replaced by the corresponding voiceless sounds in word-final positions and before voiceless consonants ['big ˌteibl].

The English voiceless consonants [p, t, k] are aspirated, when followed by a stressed vowel and not preceded by [s].

4. Consonants in English which have no counterparts in Russian are: [w, θ, ð, ʤ, r, ŋ, h].

5. There is no opposition between palatalized and non-palatalized consonants in English.

The most common mistakes that may result from the differences in the articulation bases of the English and Russian languages are the following:

– dorsal articulation of the English forelingual apical [t, d];

– the use of the Russian rolled [р] instead of the English post-alveolar [r];

– the use of the Russian [х] instead of the English glottal [h];

– mispronunciation of the English interdental [θ, ð]: the use of [s, f] for [θ] and [d, z] for [ð];

– the use of the forelingual [n] instead of the backlingual velar [ŋ];

– the use of the labio-dental [v, в] instead of the bilabial [w];

– absence of aspiration in [p, t, k] when they occur initially;

– weak pronunciation of voiceless fortis [p, t, k, f, s, ʃ, ʧ];

– devoicing of voiced [b, d, g, v, ð, z, ʒ, ʤ] in the terminal position.

2.6. The Articulatory Classification of English Vowels

The first linguist who tried to describe and classify vowels for all languages was D. Jones. He invented the system of 8 Cardinal Vowels on the physiological bases. It is supposed to be an international standard set of vowel sounds chosen to form a scale of reference. According to D. Jones, they can be produced with the bulk of the tongue at the four cardinal points in the front part of the mouth cavity and at the four cardinal points

in the back part of the mouth cavity. But in spite of the theoretical significance of the Cardinal Vowel System its practical application is limited.

Russian phoneticians classify English vowels according to the following principles:

- position of the lips;
- position of the tongue;
- length;
- degree of tenseness and the character of the end;
- stability of articulation.

1. According to the position of the lips English vowels are classified into *rounded* (labialized) [ʊ - u:, ɒ - ɔ:] and *unrounded* (non-labialized). Rounded vowels are produced when the lips are more or less rounded and slightly protruded. Unrounded vowels are produced when the lips are spread or neutral. The main effects of lip rounding are to enlarge the mouth cavity and to diminish the size of the opening of the mouth cavity. Both of these deepen the pitch.

2. According to the position of the tongue it is the bulk of the tongue that is the most important in the production of vowels. It can move forward and backward, it can be raised and lowered in the mouth cavity. So Russian phoneticians divide vowels according to the *horizontal* and *vertical* movements of the tongue.

According to the horizontal movements of the tongue vowels are subdivided into *back* [ɒ, ɔ:, u:] (when the bulk of the tongue is in the back part of the mouth, while the back of the tongue is raised in the direction of the soft palate), *back-advanced* [ʊ, ɑ:] (when the back part of the tongue is raised highest towards the soft palate), *front* [i:, e, æ] (when the bulk of the

tongue is in the front part of the mouth, while he front of the tongue is raised in the direction of the hard palate), *front-retracted* [ɪ] (when the front part of the tongue is raised highest towards the hard palate) and *central* [ɜ:, ə, ʌ] (when the tongue is almost flat and its central part is raised towards the juncture between the hard and soft palate).

According to the vertical movements of the tongue English vowels are subdivided into *high* (*close*) [i:, ɪ, ʊ, u:], *mid-open* (*half-open, mid*) [e, ɜ:, ə, ɔ:] and *low* (*open*) [ʌ, æ, ɑ:, ɒ]. High (close) vowels are produced when one of the parts of the tongue comes close to the roof of the mouth and the air passage is narrowed, but not so much as to form a consonant. Low (open) vowels are produced when the raised part of the tongue is very low in the mouth, and the air passage is very wide. Mid-open (mid) vowels are produced when the raised part of the tongue is half-way between its high and low positions.

Each of the subclasses is subdivided into vowels of narrow variation and vowels of broad variation.

3. According to the length English vowels are subdivided into (historically) *long* and (historically) *short*.

Vowel length may depend on a number of linguistic factors: position of the vowel in a word (in the terminal position a vowel is the longest, it shortens before a voiced consonant and it is the shortest before a voiceless consonant: *be – bead – beat)*, word stress (a vowel is longer in a stressed syllable than in an unstressed syllable), the number of syllables in a word ([ɜ:] in *verse* is longer than in *university*), the character of the syllabic structure. Besides vowel length depends on the tempo of speech: the higher the rate of speech the shorter the vowels.

4. According to the degree of tenseness traditionally long vowels are defined as *tense* (when the muscles of the lips, tongue, cheeks and the back walls of the pharynx are tense) and short vowels are defined as *lax* (when these organs are relatively relaxed).

English vowels can be *checked* and *unchecked* according to the character of their end. The checked vowels are those which occur in stressed closed syllables, ending in a fortis voiceless consonant: [e] in [bet]. These vowels are pronounced without any lessening in the force of utterance towards their end. They are abruptly interrupted by the following voiceless consonant and they can only occur in a closed syllable. The unchecked vowels are those which are pronounced with lessening the force of utterance towards their end. Therefore, they have weak end and occur terminally, or are followed by a lenis voiced consonant: [iː] in [biː], [ɑː] in [kɑːd].

There are no checked vowels in Russian. All of them are unchecked.

5. According to the stability of articulation English vowels are subdivided into *monophthongs* (simple vowels) and *diphthongs* (complex vowels) by Russian phoneticians.

English monophthongs are pronounced with more or less stable lip, tongue and mouth walls position (the organs of speech do not perceptibly change their position throughout the duration of the vowel). They are [ɪ, e, æ, ɒ, ʊ, ʌ, ə, ɑː, ɔː, ɜː].

Diphthongs consist of two vowel elements pronounced so as to form a single syllable. In their pronunciation the organs of speech start in the position of one vowel and glide gradually in the direction of another vowel,

whose full formation is generally not accomplished. The first element of an English diphthong is called *the nucleus*. It is strong, clear and distinct. The second element is rather weak. It is called *the glide*. English diphthongs are [eɪ, aɪ, ɔɪ, aʊ, əʊ, iə, eə, uə].

Besides these diphthongs, there are two vowels in English [i:] and [u:] which may have a diphthongal pronunciation. In the articulation of these vowels the organs of speech change their position but very slightly. These vowels are called *diphthongoids*.

According to S.F. Leontyeva diphthongs are defined differently by different authors. One definition is based on the ability of a vowel to form a syllable (as in the diphthong only one element serves as a syllabic nucleus, a diphthong is a single sound). Another definition of a diphthong as a single sound is based on the instability of the second element. Some scientists define a diphthong from the accentual point of view (as only one element is accented and the other is unaccented, a diphthong is a single sound). D. Jones defines diphthongs as unisyllabic sounds in the articulation of which organs of speech change their position. N. Trubetskoy also defines diphthongs as unisyllabic and states that the parts of a diphthong cannot belong to two syllables. L. Zinder adds that phonemically diphthongs are sounds that cannot be divided morphologically.

The classification of English vowels suggested by Russian scientists is more exact from the articulatory point of view and more simple for teaching purposes.

2.6. Differences in the Articulation Bases of the English and Russian Vowels

Articulation bases of English and Russian vowels are different. S.F. Leontyeva differentiates the following peculiarities:

1. The lips. In the production of Russian vowels, the lips are considerably protruded and rounded: [o, y]. In the production of similar English [ɒ, ɔ:, ʊ, u:] protrusion does not take place.

2. The bulk of the tongue. In the articulation of the English vowels the bulk of the tongue occupies more positions than in production of the Russian vowels.

3. The length of the vowels. Long vowels in English are considered to be tense. There are no long vowels which can be opposed phonemically to short vowels in the Russian language. Length in the Russian vowel system is an irrelevant feature.

4. The stability of articulation. There are no diphthongs in the Russian vowel system.

5. There are 6 vowels in Russian and 20 vowels in English.

In articulating English vowels Russian students can make the following mistakes:

- they do not observe the quantitative character of the long vowels;
- they do not observe the qualitative difference in the articulation of such vowels as: [i: - ɪ], [u: - ʊ], [ɔ: - ɒ];
- pronounce [i:, ɪ, e, eɪ] without the “flat position” of the lips;
- pronounce initial vowels with a glottal stop;
- make both elements of the diphthongs equally distinct;

– do not observe the positional length of vowels;

– make the sounds [æ, ɒ] more narrow because they do not open the mouth properly;

– articulate [ɒ, ɔː, ʊ, uː] with the lips too much rounded and protruded.

Questions:

1. What are the mechanisms for the production of speech sounds?
2. What are the articulatory differences between vowels, consonants and sonorants?
3. What are the four main principles of consonant classification?
4. What are different opinions on the nature of English affricates?
5. What are the principal differences in the articulation bases of the English and Russian consonants?
6. What mistakes result from the differences in the articulation bases of English and Russian consonants?
7. What are the principles of vowel classification?
8. What are different opinions on English diphthongs?
9. What are the principal differences in the articulation bases of the English and Russian vowels?
10. What mistakes result from the differences in the articulation bases of English and Russian vowels?

Give definitions of the following phonetic terms*:* (1) *affricates, apical consonants, articulation, backlingual consonants, bilabial consonants, cacuminal consonants, consonants, constrictive consonants,*

forelingual consonants, glottal consonants, labial consonants, labio-dental consonants, lateral sonorants, lingual consonants, median sonorants, mediolingual consonants, nasal consonants, noise consonants, obstruction, occlusive consonants, oral consonants, organs of speech, plosive consonants, sonorants, voiced consonants, voiceless consonants; (2) *back vowels, back-advanced vowels, central vowels, checked vowels, close (high) vowels, diphthongs, diphthongoids, front vowels, front-retracted vowels, the glide of a diphthong, lax vowels, long vowels, mid vowels, monophthongs, the nucleus of a diphthong, open (low) vowels, rounded vowels, short vowels, tense vowels, unchecked vowels, unrounded vowels, vowels.*

Exercises:

1. Explain the articulation of [p, t, k] and [b, d, g] from the viewpoint of the work of the vocal cords and the force of exhalation. Define the sounds.

2. Explain the articulation of [m, n, ŋ] from the point of view of the position of the soft palate. Define the sounds.

3. Explain the articulation of [w, j, h] from the viewpoint of the active organ of speech. Define the sounds.

4. Explain the articulation of the sounds [b, v, ʧ] from the viewpoint of the manner of noise production. Define the sounds.

5. Explain the articulation of [uː, ʊ, æ] from the viewpoint of the horizontal and vertical movements of the tongue. Define the sounds.

6. Explain the articulation of [aʊ, ɑː, iː] from the viewpoint of the stability of articulation. Define the sounds.

7. Explain the articulation of the [i:, e, æ] sounds from the viewpoint of the horizontal and vertical movements of the tongue.

8. Explain the articulatory differences between the Russian [т, р] and the English [t, r] sounds.

9. Explain the articulatory differences between the [i: - ɪ], [u: - ʊ] sounds.

10. Give articulatory definitions of the following consonants: [l, f, r, ð, s, m, p, w, θ, k, d, n, ʃ, ʧ, ʤ, j, g].

11. Give articulatory definitions of the following vowels: [ɪ, i:, ʊ, æ, e, u:, ə, ɜ:].

12. Draw the following table: classification of English consonants according to the main principles (the work of the vocal cords and the force of exhalation, the active organ of speech and the place of obstruction, the manner of noise production and the type of obstruction, the position of the soft palate).

13. Draw the following table: classification of English vowels according to the main principles (the position of the lips, the position of the tongue, the degree of tenseness and the character of the end, the length, the stability of articulation).

CHAPTER 3

The Functional Aspect of Speech Sounds

3.1. Phonology. Methods of Phonological Investigation.

3.2. Different Conceptions of the Phoneme. Aspects and Functions of the Phoneme.

3.3. Phonemes and Allophones. Types of Allophones.

3.4. Patterns of Phoneme Distribution. Types of Phonological Oppositions.

3.5. Transcription. Types of Transcription.

3.1. PHONOLOGY. METHODS OF PHONOLOGICAL INVESTIGATION

S.F. Leontyeva states that phonetics studies speech sounds as articulatory and acoustic units, phonology investigates them as units, which serve communicative purposes. Phonetics and phonology are closely connected. The unit of phonetics is a speech sound, the unit of phonology is a *phoneme*. The phoneme is the smallest unit of the language system. Phonemes can be discovered by *the method of minimal pairs* (*commutation test* or *the method of substitution*), which consists in finding pairs of words which differ in one phoneme. For example, *ban – fan* is a

pair of words distinguished in meaning by a single sound change. Two words of this kind are termed "*minimal pair*". It is possible to take this process further and we can also produce *can – ran – man* – it is a minimal set. To establish the phonemes of the language the phonologist tries to find pairs that show which sounds occur or do not occur in identical positions.

The method of minimal pairs helps to identify 24 consonant phonemes and 20 vowel phonemes in the phonological system of the English language.

The phonemes of a language form a system of oppositions, in which any one phoneme is usually opposed to any other phoneme in at least one position, in at least one minimal pair. If the substitution of one sound for another results in the change of the meaning, the commuted sounds are different phonemes, speech sounds, which are phonologically significant.

The statistical method is also used in phonology. Its aim is to establish the frequency, probability and predictability of occurrence of phonemes and their allophones in different positions.

3.2. Different Conceptions of the Phoneme. Aspects and Functions of the Phoneme

The founder of the phoneme theory was L. A. Baudouin de Courtrney. His theory of the phoneme was developed and perfected by L.V. Shcherba. He stated that in actual speech we utter a much greater variety of sounds than we are aware of, and that in every language these

sounds are united in a comparatively small number of sound types, which are capable of distinguishing the meaning and the form of words; so they serve the purpose of social communication.

As S.F. Leontyeva points out, there are different opinions on the nature of the phoneme and its definition. Ferdinand de Saussure suggested the abstractional conception of the phoneme. It is regarded as independent of the phonetic properties according to this theory. N.S. Trubetskoy and L. Bloomfield viewed the phoneme as the minimal sound units by which meanings may be differentiated. D. Jones defined the phoneme as a "family" of sounds. The members of the family show phonetic similarity. No member of the family can occur in the same phonetic context as any other member. This view was shared by American scientists B. Bloch and G. Trager. They define the phoneme as a class of phonetically similar sounds, contrasting and mutually exclusive with all similar classes in the language.

L.V. Shcherba was the first to define the *phoneme* as a real, independent distinctive unit which manifests itself in the form of allophones. Prof. V.A. Vassilyev developed this theory and presented a detailed definition of the phoneme. He states that a phoneme is a dialectical unity of three aspects: (1) material, real and objective (it really exists in the material form of speech sounds and allophones), (2) abstract and generalized (it exists independently from our will or intention and we can make it abstract from concrete realizations for classificatory purposes), (3) functional. It performs the following functions: *constitutive* (it

constitutes words), *distinctive* (it makes one word distinct from the other) and *recognitive* (it helps to recognize words).

3.3. Phonemes and Allophones. Types of Allophones

The actually pronounced speech sounds are variants, *allophones* of phonemes. Allophones are realized in concrete words. They have phonetic similarity, i.e. their acoustic and articulatory features have much in common, but at the same time they differ in some degree and are incapable of differentiating words (S.F. Leontyeva). For example, [t] is labialized in the word *twice*, dental in the word *eighth*, post-alveolar in *try*, exploded nasally in *written*, exploded laterally in *little*, pronounced without aspiration in *stay*. Allophones usually occur in different positions in the word, and hence cannot contrast with each other so they cannot be used to make meaningful distinctions.

Each speech sound is an allophone of some phoneme. The number of sound types, or phonemes, in each language is much smaller than the number of sounds actually pronounced.

Phonemic variants, or allophones, are very important for language teaching because they are pronounced in actual speech. S.F. Leontyeva remarks that mispronunciation of allophones does not always influence the meaning of the words but it makes a person's speech sound as "foreign".

The variant of the phoneme which is described as the most representative and free from the influence of the neighbouring phonemes is *typical*, or *principal*. The variants used in actual speech are called *subsidiary*. Subsidiary allophones can be *positional* and *combinatory*. Positional allophones are used in certain positions traditionally. For

example, the English [l] is realized in actual speech as a positional allophone: it is clear in the initial position, and dark in the terminal position (*light, let* and *hill, mill*). Combinatory allophones appear in the process of speech and result from the influence of one phoneme upon another.

Learners of English usually make mistakes in the articulation of particular sounds. L.V. Shcherba classifies the pronunciation errors as *phonological* and *phonetic*.

If an allophone of some phoneme is replaced by an allophone of a different phoneme the mistake is called phonological, because the meaning of the word is inevitably affected. It happens when one or more relevant features (those ones that are capable of differentiating meanings) of the phoneme are not realized. When the vowel [i:] in the word *beat* becomes slightly more open, more advanced or is no longer diphthongized the word *beat* may be perceived as quite a different word *bit*. It is perfectly clear that this type of mistakes is not admitted in teaching pronunciation to any type of language learner.

If an allophone of some phoneme is replaced by another allophone of the same phoneme the mistake is called phonetic, because the meaning of the word is not affected. When the vowel [i:] is fully long in such a word as *sheep*, the meaning of the word does not change. Nevertheless, language learners should try to avoid phonetic mistakes in their pronunciation. If they do make them the degree of their foreign accent can be an obstacle to the listener's perception and understanding (M.A. Sokolova).

3.4. PATTERNS OF PHONEME DISTRIBUTION. TYPES OF PHONOLOGICAL OPPOSITIONS

To establish the distribution of phonemes, i.e. all the positions or combinations in which each phoneme of a given language occurs (or does not occur) in the words of the language, the *distributional method* is used.

Each phoneme manifests itself in a certain pattern of distribution. The simplest of them is *free variation*, i.e. the variation of one and the same phoneme pronounced differently (the pronunciation of the initial [k] with different degrees of aspiration).

Complementary distribution is another pattern of phoneme environment, when one and the same phoneme occurs in a definite set of contexts in which no other phoneme ever occurs ([ʊ] in *pool, food, cool*). The allophones of one and the same phoneme never occur in the same context, variants of one phoneme are mutually exclusive.

Contrastive distribution is one more pattern of phoneme environment (*pit – peat, bad – bed* – are minimal pairs).

The articulatory features that serve to distinguish meaning are called *distinctive (relevant) features*.

Minimal distinctive features are discovered through *oppositions*. This method helps to prove whether the phonemic difference is relevant or not, whether the opposition is *single*, *double* or *multiple*. For example, [t] and [d] have only one distinctively relevant feature (voiceless fortis – voiced lenis) – *single opposition*. We can prove that this opposition is really phonemic by the minimal pairs: *ten – den, time – dime, try – dry*. [p] and [b]

have two distinctively relevant features (voiceless fortis – voiced lenis; labial, bilabial – lingual, forelingual, apical, alveolar) – *double opposition*. The opposition is really phonemic. It can be proved by the minimal pairs: *pie – die, pry – dry*. [b] and [h] have three distinctively relevant features (voiced lenis - voiceless fortis; labial, bilabial – glottal; occlusive – constrictive) – *multiple opposition*. The phonemic nature of this opposition can be proved by minimal pairs: *be – he, bit – hit, bait – hate*.

The articulatory features which do not serve to distinguish meaning are called *non-distinctive* (*irrelevant*). For example, it is impossible in English to oppose an aspirated [p] to a non-aspirated one in the same phonetic context to distinguish meanings. That is why aspiration is a non-distinctive feature of English consonants.

If there are more than one distinctive features in a pair, it is called *"sub-minimal"*. For example, the pair *treasure – pressure* is sub-minimal, because the opposition is due to: 1) the presence and absence of noise in the [ʒ] and [ʃ] phonemes; 2) forelingual articulation of the [t] phoneme and bilabial articulation of the [p] phoneme.

Minimal pairs occur in identical environments; sub-minimal pairs occur in similar environments.

3.5. Transcription. Types of Transcription

Transcription is a set of symbols representing speech sounds. M.A. Sokolova points out that there are two types of transcription depending on whether the aim is to indicate the phonemes or their allophones.

The *broad* (*phonemic*) *transcription* provides special symbols for all the phonemes of a language. The *narrow* (*allophonic*) transcription suggests special symbols for speech sounds representing particular allophonic features.

The broad transcription is mainly used for practical purposes (in teaching and learning, for example), the narrow type serves the purposes of research work. Slant brackets are used to mark phonemic transcription (/ /), square brackets are used for allophones ([ ]).

There are two types of broad transcription which are used for practical purposes. Their existence is conditioned by the fact that the vowel sounds differ in quality and in quantity (*sit – seat, pot – port*). The first type was introduced by D. Jones. He aimed at reducing the number of symbols to a minimum. According to his notation English vowels are denoted like this: [ɪ] – [iː], [e] – [æ], [ʌ] – [ɑː], [ɔ] – [ɔː], [u] – [uː], [ə] – [əː]. But this way of notation disguises the qualitative difference between the vowels [ɪ] – [iː], [ɔ] – [ɔː], [u] – [uː], [ə] – [əː]. The other type of broad transcription, first used by V.A. Vassilyev, provides special symbols for all vowel phonemes: [ɪ], [iː], [e], [æ], [ʌ], [ɑː], [ɒ], [ɔː], [ʊ], [uː], [ə], [ɜː]. Being a good visual aid this way of notation can be strongly recommended for teaching the pronunciation of English.

Questions:

1. What is phonology?
2. What methods of phonological investigation do you know? How are phonemes discovered?
3. What is the difference between phonemes and allophones?

4. What types of allophones do you know?
5. State the difference between phonological and phonetic mistakes.
6. What features are called distinctive (relevant) and non-distinctive (irrelevant)? Give examples.
7. What patterns of phoneme distribution do you know?
8. What types of oppositions can be distinguished?
9. How is phoneme defined by different scientists?
10. What are the aspects and functions of the phoneme?
11. What is transcription?
12. What types of transcription are distinguished?

Give definitions of the following phonetic terms: *allophones, allophonic (narrow) transcription, combinatory allophones, commutation test, distributional method, minimal pair, the method of minimal pairs, the method of distinctive oppositions, phoneme, phonemic (broad) transcription, phonology, positional allophones, principal allophones, statistical method, sub-minimal pair, subsidiary allophones, substitution method, transcription.*

Exercises:

1. Give examples of (a) single opposition, (b) double opposition, (c) multiple opposition.
2. Give theoretical and practical proofs to explain constitutive, recognitive and distinctive functions of phonemes.
3. Match the words below to obtain minimal pairs:

catch, pip, cheap, sap, he, jail, lap, pair, say, sink, rip, fail, lass, Sam, mink, cap, tear, she, lay, heap, match.

4. State what classificatory principles can be illustrated by the following pairs of words (consonants opposed initially):

pin – bin, pen – ten, pole – coal, fee – he, sob – rob, pity – city, pine – mine, tail – veil, fell – well, fail – sail, those – rose, debt – net, pay – say, seal – reel.

5. What minimal distinctive feature (or features) makes the following oppositions phonologically relevant:

cap – cab, pee – fee, till – chill, thigh – shy, bad – mad?

6. State which of the following pairs of words represent minimal pairs and which sub-minimal pairs:

thick – sick, mouth – mouse, leisure – ledger, zest – lest, they – lay, marry – measure, daily – daisy, Weller – weather, genre – jar, eel – ease, thigh – shy.

7. Match the following words to obtain minimal pairs. State the type of opposition:

lane, merry, knock, rice, berry, right, moat, dock, hair, fame, dare, same, vain, bee, thee, boat.

8. State what principles of vowel classification can be illustrated by the following pairs of words:

cod – cord, ten – tan, firm – form, pool – pull, man – main, caught – coat.

9. What classificatory principle of vowels can be illustrated by the following contrastive pairs:

bid – beard, dead – dared, ass – ice, manner – minor, too – tour, ate – eight, letter – later?

10. Read these words. Observe the allophonic difference of the [iː, eɪ, aɪ] phonemes conditioned by their positional length:

bee – been – beet, lay – laid – late, tie – tide – tight.

11. State the differences between the allophones in the following pairs of words:

scare – care, trick – tick, in the desk – in a desk.

12. Arrange these words into minimal distinctive pairs:

cart, wart, caught, don, what, cod, card, down, cot, cord.

13. Read these words. Observe the degree of aspiration (the strongest, less strong, practically no aspiration):

keep, spent, pause, till, put, stay, care, pity, toss, basket, plan, act, time, cold, cost, teacher, looked, splendid, took, curly, car, possible, tears, cook, cleaning, explain, platform.

14. Read the words. Observe the clear [l] before front, mixed and back vowels and the dark [ɫ] in terminal position and before a consonant (not [j]):

a) *large, lots, along, let, place, bloom, glass, lost, left, realize, gladly, learned, lived, looked*; b) *meals, cold, adult, deal, rule, I'll, helps, still, restful, twelve, world*.

15. If a student of English substitutes the English [d] by the Russian [д], does he make a phonetic or phonological mistake?

16. Suppose your fellow-student says *beer* instead of *bear*. Is this mistake phonetic or phonological?

17. Suppose your fellow-student pronounces the word *sing* as [sɪn]. Is this mistake phonetic or phonological?

18. If the word *port* sounds as [pɒt], is the mistake phonetic or phonological?

19. What is the difference between the two consonants [b] in the word *bob*?

20. Is the vowel [ɪ] longer in *lit* or *lid*?

21. Is the diphthong longer in *laid* or in *late*?

22. Is the diphthong longer in *pear* or in *pears*?

23. Is the vowel shorter in *nod* or *not*?

24. Give examples where [æ] is the longest.

25. What is aspiration? Are Russian stops aspirated?

26. What is palatalization? Why does this mistake occur in the pronunciation of Russian learners of English?

27. How are [b, d, g] pronounced in word final position?

28. State the allophonic differences of the phonemes: [t] – *table, bottle, written, stone, football*; [b] – *labour, bee, cab, stabbed, table, ribbon*; [k] – *come, baker, deck chair, taken, tickle, sky*; [d] – *day, leader, mad, good dog, middle, admit*; [g] – *again, gain, big, begged, dragon, eagle*.

29. Give examples to show variations in length of the vowel [i:] in different positions.

30. Give examples to illustrate that [ɑ:] is not equally long in different phonetic contexts.

31. How do voiced and voiceless stops influence the length of preceding vowels?

32. What articulatory feature of the opposed consonants makes the meanings of the following words different:

rip – rib, tear – dear, pick – pig, park – bark?

33. What articulatory feature of the vowel sounds differentiates the meanings of the words: *bet – boat, got – goat*?

34. What do the consonants [p, t, k] have in common?

35. Match the following words to obtain minimal pairs. State the type of opposition:

time, meal, rock, spool, low, spoon, know, wrong, tight, heal.

36. State which of the pairs illustrate (a) forelingual vs. mediolingual and (b) forelingual vs. backlingual oppositions:

tame – came, less – yes, rudder – rugger, bitter – bicker, bad – bag, sung – young, day -gay, rung – young.

37. Sort out the oppositions under the following headings: (a) labial vs. forelingual, (b) labial vs. mediolingual, (c) labial vs. backlingual:

pat – cat, leap – leak, wield – yield, seem – seen, man – map, coming – cunning.

CHAPTER 4

Modifications of Phonemes in Connected Speech

4.1. The Mechanism of Articulatory Transition of Phonemes in Connected Speech.

4.2. Assimilation. Types of Assimilation.

4.3. Elision and Reduction.

4.4. Sound Alternations.

4.1. The Mechanism of Articulatory Transition of Phonemes in Connected Speech

Sounds in actual speech are usually pronounced together with other sounds within single words and at the junction of words in phrases and sentences. To join the sounds together in the proper way it is necessary to understand the mechanism of articulatory transition.

Every speech sound pronounced in isolation has three stages of articulation.

The *on-glide* (the *initial stage, excursion*), or the beginning of a sound, is the stage during which the organs of speech move away from a neutral position to take up the position necessary for the pronunciation of a consonant or a vowel. The on-glide produces no audible sound.

The *hold stage* (the *medial stage,* the *retention stage*), or the middle of a sound, is the stage during which the organs of speech are kept for some time either in the same position necessary to pronounce the sound (in the case of non-complex sounds) or move from one position to another (in the case of complex sounds, such as diphthongs, diphthongoids or affricates).

The *off-glide* (the *final stage, recursion*), or the end of a sound, is the stage during which the organs of speech move away to a neutral position.

For example, the on-glide of [p] is the closure of the lips, the second phase is the pause, the off-glide is the explosion.

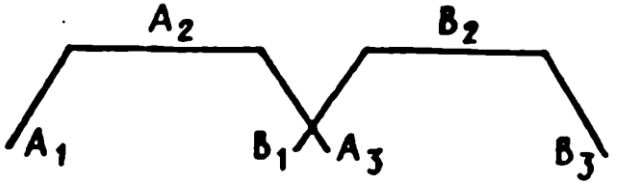
To illustrate these three articulatory stages let us analyse the work of the organs of speech in pronouncing the consonant [p]. During the on-glide of this consonant the soft palate is raised, and the lips are brought together to form a complete obstruction. At the same time the vocal cords are kept apart. As soon as the lips are closed to form a complete obstruction, the retention stage of the sound begins. It is immediately followed by the off-glide, or release. During this stage the lips are quickly opened, and the air escapes from the mouth with plosion. The soft palate is lowered. Thus the organs of speech take up a neutral position.

In English there are two principal ways of joining two adjacent speech sounds:

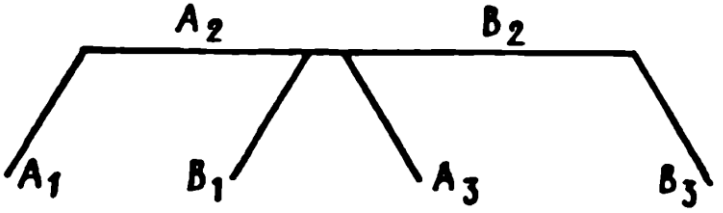
1. Merging of stages.
2. Interpenetration of stages.

The type of junction depends on the nature of the sounds that are joined together (C+V, V+C, C+C, V+V).

Merging of stages. It usually takes place when two adjacent sounds of different nature are joined together (the sounds articulated by different organs of speech, by different parts of the tongue or articulated both by different organs of speech and by different parts of the tongue). In this case the end of the preceding sound penetrates into the beginning of the following sound. In other words, the end of the first sound and the beginning of the second sound are articulated almost simultaneously (*arm* [ɑːm]). ***Fig. 4:***



Interpenetration of stages. It usually takes place when consonants of a similar or identical nature are joined. In this case the end of the first sound penetrates not only into the beginning but also into the middle part of the second sound ([tl] in *kettle* ['ketl]). ***Fig. 5***:



Two identical sounds are joined together in the following way: the second sound penetrates into the beginning of the first one, that is the

organs of speech, while moving to take up the position necessary to pronounce the first sound, are already fully prepared for the pronunciation of the second sound (*unknown* [ʌn'nəʊn], *this story* ['ðɪs 'stɔːrɪ]). There is no interruption in the articulation of the two sounds, but we hear both of them due to the change in their tenseness. The tenseness decreases at the end of the hold stage of the first sound and increases at the beginning of the hold stage of the second sound.

4.2. ASSIMILATION. TYPES OF ASSIMILATION

Two adjacent consonants within a word or at word boundaries often influence each other in such a way that the articulation of one sound becomes similar to or even identical with the articulation of the other one. This phenomenon is called *assimilation*. The consonant whose articulation is modified under the influence of a neighbouring consonant is called the *assimilated sound*; the consonant which influences the articulation of a neighbouring consonant is called the *assimilating sound*.

Assimilation can be conditioned by the complementary distribution of the phonemes, by the contextual variations in which phonemes may occur at the junction of words and by the style of speech (official or rapid colloquial).

Assimilation is the main factor under the influence of which the principal variants of the phonemes are modified into subsidiary ones.

Assimilation may affect all the features of the articulation of a consonant or only some of them. Thus we can speak of:

1. assimilation affecting the place of articulation, or, both the place of articulation and the active organ of speech (*tenth*);

2. assimilation affecting the manner of the production of noise (*give me*);

3. assimilation affecting the work of the vocal cords (*used to*);

4. assimilation affecting the lip position (*twenty*, *swim*);

5. assimilation affecting the position of the soft palate (*grandmother*).

Assimilation can be of three degrees: complete, partial and intermediate.

Assimilation is said to be *complete* when the articulation of the assimilated consonant fully coincides with that of the assimilating one (in the word *horse-shoe* ['hɔːʃ ʃuː] which is a compound of the words *horse* [hɔːs] and *shoe* [ʃuː], [s] in the word [hɔːs]) is changed to [ʃ] under the influence of [ʃ] in the word [ʃuː]).

Assimilation is said to be *partial* when the assimilated consonant retains its main phonemic features and becomes only partly similar in some feature of its articulation to the assimilating sound (in *twice* [twaıs] the principal (fully voiced) variant of the phoneme [w] is replaced by its partly devoiced variant).

Assimilation is said to be *intermediate* between complete and partial when the assimilated consonant changes into a different sound, but does not coincide with the assimilating consonant (in the word *gooseberry* ['guzbərı], [s] in *goose* [guːs] is replaced by [z] under the influence of [b] in *berry*).

Assimilation can be of three types as far as its direction is concerned: progressive, regressive and double (reciprocal).

In *progressive* assimilation the assimilated consonant is influenced by the preceding consonant (in the word *place* the fully voiced variant of the consonant phoneme [l] is assimilated to [p] and is replaced by a partly devoiced variant of the same phoneme).

In *regressive* assimilation the preceding consonant is influenced by the following one (the voiced consonant [z] in *news* [njuːz] is replaced by the voiceless consonant [s] in the compound *newspaper* ['njuːspeɪpə] under the influence of the voiceless sound [p]).

In *double*, or *reciprocal*, assimilation two adjacent consonants influence each other (in *twenty* ['twentɪ], the sonorant [w] is assimilated to the voiceless plosive consonant [t] by becoming partly devoiced and [t] is assimilated to [w] and is represented by its labialized variant).

Assimilation which occurs in everyday speech in the present-day pronunciation is called *living* (let you out [ˌlet ju 'aʊt - ˌletʃu 'aʊt]. If the present-day pronunciation of a word is the result of an assimilation which took place at an earlier stage in the history of the language, we have the so-called *historical* assimilation (*occasion* [ə'keɪʒən] from [o'kæzjon]).

In the pronunciation of such compounds as *horse-shoe* ['hɔːʃ ʃuː], *gooseberry* ['guzbərɪ], we have contextual assimilations. In *contextual* assimilation a word comes to have a pronunciation different from that which it has when said by itself.

It is useful to distinguish between *obligatory* assimilation and *non-obligatory* assimilation. Obligatory assimilation occurs in the speech of all people who speak a certain language, no matter what style of speech is used. Non-obligatory assimilation appears in rapid and careless speech.

Teachers, public speakers, lecturers should avoid using this assimilation and foreign students should not try to imitate such speech.

The modification in the articulation of a vowel under the influence of an adjacent consonant, or, vice versa, the modification in the articulation of a consonant under the influence of an adjacent vowel is called *adaptation*, or *accommodation*.

In accommodation the accommodated sound does not change its main phonemic features and is pronounced as a variant of the same phoneme slightly modified under the influence of a neighbouring sound. In modern English there are three main types of accommodation.

1. An *unrounded* variant of a consonant phoneme is replaced by its *rounded* variant under the influence of a following rounded vowel phoneme (*tea* [tiː] – *too* [tuː]).

2. A *fully* back variant of a back vowel phoneme is replaced by its slightly *advanced* variant under the influence of the preceding mediolingual phoneme [j] (*moon* [muːn] – *music* ['mjuːzık]).

3. A vowel phoneme is represented by its *slightly more open* variant before the dark [ł] under the influence of the latter's back secondary focus (the vowel sound in *bell*, *tell* is slightly more open than the vowel in *bed*, *ten*).

4.3. Elision and Reduction

In rapid colloquial speech certain notional words may lose some of their sounds (vowels and consonants). This phenomenon is called *elision*. Elision occurs both within words and at word boundaries (*next day* ['nekst 'deı] - ['neks 'deı]).

Elision can be *historical*: *walk* [wɔːk], *knight* [naɪt], *castle* ['kɑːsl]. There is a tendency nowadays to pronounce sounds which are not pronounced as a result of historical assimilation: *often* ['ɒf(ə)n] → ['ɒft(ə)n].

The most common cases of contemporary elision are the following:

– elision of [t, d] in [ft, st, ʃt, θt, vd, zd, ðd] sequences: *waste paper* [ˌweɪs ˈpeɪpə], *closed doors* [ˈkləʊz ˌdɔːz];

– elision of [t, d] in [pt, kt, bd, gd, ʧt, ʤd] sequences: *dubbed film* [ˈdub ˌfilm], *trapped by* [ˈtræp ˌbaɪ];

– elision of [d] in [md, nd, ŋd] sequences: *slammed the door* [ˈslæm ðə ˌdɔː];

There are some words in which elision frequently exists in everyday speech. Some of them are:

– *months* and *clothes* with elided dental fricatives: [mʌnθs] → [mʌns], [kləʊðz] → [kləʊz];

– *sixth* elides the consonant which precedes [θ]: [sɪksθ] → [sɪkθ];

– *of* elides [v] before [ð] or before other consonants in rapid colloquial speech: *six of the best* [ˈsiks ə ðəˌbest], *two pounds of pears* [ˈtuː ˈpaʊnz əˌpeəz];

– *going to* has the form [gənə] in all cases except very careful speech.

P. Roach states that producing elisions is something which foreign learners do not need to learn to do, but it is important for them to be aware that when native speakers of English talk to each other, quite a number of phonemes that the foreigner might expect to hear are not actually pronounced.

The phonetic process that affects English vowels in connected speech is called *reduction*. It is a process of shortening, weakening or

disappearance of vowel sounds in unstressed positions (*combine* ['kɒmbaın] – *to combine* [kəm'baın]). Vowel reduction in unstressed syllables is very common both in English and in Russian.

Reduction is realized:

(a) in unstressed syllables within words (*demonstrative* [dı'mɒnstrətıv]);

(b) in unstressed form-words, auxiliary and modal verbs, personal and possessive pronouns within intonation groups and phrases.

Reduction can be quantitative and qualitative.

1. *Quantitative* reduction (shortening of a vowel sound in the unstressed position) affects mainly long vowels (*he* [hiː - hi·- hi]).

2. *Qualitative* reduction (obscuration of vowels towards [ə, ı, ʊ]) affects both long and short vowels (*can* [kæn - kən]).

Vowels in unstressed form-words in most cases undergo both quantitative and qualitative reduction (*to* [tuː - tu· - tu]).

4.4. Sound Alternations

Sound alternations (or sound interchange) are sound variations in words, their derivatives and grammatical forms of words. It is obvious, that sound alternations are caused by assimilation, accommodation and reduction in speech.

Some sound alternations are traced to the phonetic changes in earlier periods of the language development and known as *historical*. Historical alternations include all alternations for which no causes can be found in the present-day language. They can only be explained on the basis

of the history of the language. Historical alternations always have definite grammatical functions. They are therefore very stable and are preserved in the language for centuries.

Historical alternations mark both vowels and consonants. The following list of examples presents the most common types of alternations:

1. Vowel alternations.

a) Distinction of irregular verbal forms:

[i: - e - e]: meet – met – met

[ɪ - ʌ - ʌ]: dig – dug – dug

[ɪ - æ - ʌ]: sing – sang – sung

[i: - ɔ: - ɔ:]: teach – taught – taught

[ɪ - æ - æ]: sit – sat – sat

[ʌ - eɪ- ʌ]: become – became – become

and other verbal alternations of this type.

b) Distinction of casual verbal forms:

[ɪ - e]: sit – set

[aɪ - eɪ]: rise – raise

[ɔ: - e]: fall – fell

c) Distinction of singular and plural forms of nouns:

[æ - e]: man – men

[ʊ - i:]: foot – feet

[u: - i:]: tooth – teeth

[aʊ - aɪ]: mouse – mice

[ʊ - ɪ]: woman – women

[aɪ - ɪ]: child – children

d) Distinction of parts of speech in etymologically correlated words:

[ɑ: - æ]: class – classify

[ɔ: - e]: broad – breadth

2. Consonant alternations.

a) Distinction of irregular verbal forms:

[d - t]: send – sent, lend – lent

e) Distinction of parts of speech in etymologically correlated words:

[s - z]: advice – advise, house – house, use – use

[s - d]: defence – defend

[t - d]: intent – intend

[k - ʧ]: speak – speech

3. Vowel + consonant alternations.

[ɪ - aɪ] + [v - f]: live – life

[ɑ: - eɪ] + [θ - ð]: bath – bathe.

Sound alternations are also widely spread in the present-day English and are known as *phonetic*. They are the result of the phonetic laws which function in the language. The causes of phonetic alternations can be easily observed.

In English the most important phonetic alternations are those which accompany grammatical phenomena. They are:

– [t - d - ɪd] – in the suffix *–(e)d* of the Past Tense of regular verbs;

– [s - z - ɪz] – in the plural suffix *–(e)s* of nouns;

– [s - z - ɪz] – in the suffix *–(e)s* of the 3rd person singular verbs (Present Simple).

An alternation of corresponding voiced and voiceless consonants can be explained by progressive assimilation in the three suffixes mentioned above.

The difference between the strong and the weak forms of auxiliary words and some other elements of speech is also based on phonetic alternations of vowels and consonants:

There she is! [ˊðeə ʃıˑ iz]

There's no time. [ðəz ˊnəʊ ˌtaım].

A great number of English words with a final "*r*" have two pronunciations:

with [r]: *four or six times* [ˊfɔ:r ə ˊsıks ˌtaımz]

without [r]: *four lamps* [ˊfɔ: ˊlæmps].

In this case, the historical "*r*" that has been preserved in the spelling of words, is used in present-day English in the form of the so-called "linking [r] ".

Another case of alternations concerns the definite and indefinite articles:

the – [i - ə]: *the open door* [ðı ˊəʊpn ˊdɔ:] and *the door* [ðə ˊdɔ:].

Questions:

1. What are the three stages of articulation of a speech sound?
2. What is the merging of stages?
3. What is the interpenetration of stages?
4. What is assimilation, adaptation, elision, reduction?
5. What types of assimilation do you know?

Give definitions of the following phonetic terms: *accommodation, assimilation, close transition, complete assimilation, contextual assimilation, elision, historical assimilation, incomplete (partial)*

assimilation, intermediate assimilation, living assimilation, loose transition, non-obligatory assimilation, obligatory assimilation, progressive assimilation, reciprocal (double) assimilation, reduction, regressive assimilation.

Exercises:

1. Show graphically the ways of transition between the sounds in the following words, define the type of transition:

five, kettle, part, month, give, needle, spell, fact, tenth.

2. Underline the sounds affected by assimilation, describe its type:

breadth, wealth, at that, afraid, thrive, place, horse-shoe, what's, twenty, quick, fivepence, three, width, twice, depth, tree, in the, gooseberry, plate, newspaper.

3. State what cases of assimilation can be observed in rapid, colloquial speech in the following examples:

a) *bright blue, dark board, whitewash*; b) *third part, head boy, red meat, hard work*; c) *short cake, bright green*; d) *hard cash, head gird*; e) *in Cardiff, sunglasses*; f) *in the corner, all the books*; g) *… won't you? … couldn't you? … can't you?*

4. Transcribe the words below. Single out the vowels that may be elided in these words:

nursery, temporary, reasonable, parliament, buffalo, phonetically, potato, policeman, petitioner, difficult, banana, boundary, several, suppose, history, preference, secretary, government, bachelor, naturally, awfully, comfortable, interesting, suffering, possibly, machine.

5. Transcribe the words below. Single out the consonants that may be elided in these words:

handbag, postman, last Saturday, next time, attempt, empty, night time, crumbs, landscape, next stop, lamb, a sixth round.

6. Transcribe and read the examples below, observe the elision of [t, d] preceded by a) fricatives, b) stops, c) nasals:

a) *cleft palate, waste paper, bathed the baby, crushed strawberries*;

b) *trapped by, cracked pots, dubbed film, bugged telephone*;

c) *slammed the door, hair-brained scheme, stringed musical instrument*.

7. Arrange these words under the headings:

a) lateral plosion, b) nasal plosion, c) loss of plosion: *actor, curdled, muddle, needless, mottled, Britain, begged, at last, what kind, admit, back to back, madness, witness, big books, partner, slept, cotton, great number, sudden, captain, top coat, red light, black goat, ripe cheese, huddle, at night, good looks*.

8. Consider the following cases of phoneme alternations and state their function:

see – saw – seen, hang – hung – hung, find – found – found, wide – width, long – length, breath – breathe, bath – bathe, life – live, goose – geese, child – children, mouse – mice, correct – correction, express – expression, object – objection.

CHAPTER 5

Syllable

5.1. The Phenomenon of the Syllable.
5.2. Syllable Formation.
5.3. Syllable Division.
5.4. Functional Aspect of the Syllable.
5.5. Graphic Characteristics of the Syllable.

5.1. THE PHENOMENON OF THE SYLLABLE

M.A. Sokolova points out that speech can be broken into minimal pronounceable units into which sounds show a tendency to group themselves. These smallest phonetic groups are called *syllables*. As syllables are the smallest pronounceable units, they can form language units of greater magnitude, i.e. morphemes, words, phrases and sentences. Each of these units is characterized by a certain syllabic structure.

According to J. Kenyon the syllable is one or more speech sounds forming a single uninterrupted unit of utterance, which may be a whole word, or a commonly recognized and separable subdivision of a word. The

syllable can be a single word (*chair* [ʧeə]), a part of a word (*English* ['ɪŋglɪʃ]), a part of the grammatical form of a word (*later* ['leɪ-tə]).

The study of the syllable has for a long time occupied an important place in linguistics as a field of theoretical investigation. A considerable amount of experimental work has been done but the problem of the syllable is still an open question in linguistics and phonetics.

The syllable is a complicated phenomenon and it can be studied on four levels: acoustic, articulatory, auditory and functional. Acoustically the syllable is characterized by the force of utterance, pitch of the voice and length. On the auditory level the syllable is the smallest unit of perception. The articulatory energy which constitutes the syllable results from the combined action of the power, vibrator, resonator and obstructor mechanisms. Phonologically the syllable is regarded and defined in terms of its structural and functional properties.

The fact that the syllable can be approached from different points of view gave rise to a number of theories: the so-called *expiratory theory* (experimentally proved by R.H. Stetson); *the sonority theory* (O. Jespersen); *the theory of muscular tension* (was sketched by L.V. Sherba and modified by V.A. Vasilyev); *the loudness theory* (worked by N.I. Zhinkin). The expiratory theory states that there are as many syllables in a word as there are expiration pulses. The sonority theory states that there are as many syllables in a word as there are peaks of prominence or sonority. Two points of lower sonority constitute the beginning and the end of one syllable. This theory helps to establish the number of syllables in a word. The loudness theory states that the centre of a syllable is the syllable forming phoneme. There are as many syllables as there are “arcs of

loudness" and the point of syllable division corresponds to the moment when the arc of loudness begins or ends.

The syllable can also be viewed in connection with its graphic representation. Syllables in writing are called *syllabographs* and are closely connected with the morphemic structure of words.

Syllables are characterized by some variation in the force of utterance. So they can be classified according to their accentual weight. From this point of view, syllables may be *stressed* and *unstressed*.

The syllabic structure of words has two aspects which are inseparable from each other: syllable formation and syllable division (or syllable separation).

5.2. Syllable Formation

A syllable is a speech unit consisting of a sound (V) or a sound sequence (VC, CS) one of which is heard to be more prominent than the others. The most prominent sound being the *peak* of the syllable is called *syllabic*. Only syllabic sounds are capable of forming syllables. Syllabic sounds are generally vowels and sonorants (in English). The latter become syllabic when they are joined to a preceding noise consonant. Among syllabic sonorants we find [l, n] and less commonly [m]. Syllabic sonorants are indicated by [ˌ] placed beneath the symbol: *apple* ['æpl̩], *trouble* ['trʌbl̩].

A word consisting of only one vowel sound represents a separate syllable (*I* [aɪ], *are* [ɑː]). In the case of a diphthong the peak of the syllable is formed by its nucleus.

Many words in English such as *parcel, level, person* can be pronounced with the neutral vowel before the sonorant thus making it non-syllabic (['pɑːs(ə)l], ['lev(ə)l], ['pɜːs(ə)n]). In all these words the second prominent sound or the peak is formed by [ə] corresponding to some vowel letter in an unstressed position before the sonorant. Moreover, some words in English not having any vowel-letter before the final sonorant may also be pronounced in both ways (*puzzle* ['pʌzl] - ['pʌzəl]).

On the other hand, many words having a vowel-letter before the final sonorant may be pronounced without the neutral vowel, whereby the sonorant is syllabic (*garden* ['gɑːdn], *lesson* ['lesn]).

The words with the sonorant [m] *blossom*, *rhythm* are more often pronounced with the neutral vowel (['blɒsəm], ['rɪðəm]).

So if a sonorant is preceded by a vowel sound it loses its syllabic character and the syllable is formed by the vowel.

In English there are four types of the syllable:

1) CV covered open (*no*)
2) VC uncovered closed (*on*)
3) CVC covered closed (*man*)
4) V uncovered open (*awe*)

It is necessary to point out that due to its structure the English language has developed the closed type of syllable as the fundamental one while in Russian it is the open type that forms the basis of syllable formation. As to the number of syllables in the English word it can vary from one to eight.

5.3. SYLLABLE DIVISION

It is not difficult to count how many syllables a word contains by noticing the peaks or the most prominent sounds in it, but it is not generally easy to determine precisely the syllable boundary.

Sometimes the beginning of a syllable is marked by a stress (*create* [krɪ'eɪt]).

In other cases, the transition from one vowel sound to another indicates the separation of syllables (*seeing* ['siːɪŋ]).

But there are cases when it is almost impossible to determine the syllable boundary (*extra* ['ek-strə] - ['eks-trə]).

Syllable division rules can be defined as follows:

1) An intervocalic consonant tends to belong to the following syllabic sound when it is preceded by a long vowel or a diphthong, as they are always free (unchecked) at the end and there is no need to close the syllable (*music* ['mjuː-zɪk]).

In case of a short stressed vowel followed by a consonant there are two viewpoints concerning the syllable boundary.

(a) the intervocalic consonant belongs to the short vowel preceding it (*pity* ['pɪt-ɪ]);

(b) the syllable boundary goes through the consonant (*pity* ['pɪtɪ]). In this case the sound [t] belongs structurally both to the preceding and the following vowels.

2) When two vowels are separated from each other by two consonants the point of syllable division is often conditioned by whether this cluster occurs at the beginning of English words or not. If it does, the

point of syllable division is before the cluster; if it does not, the syllabic boundary is between the consonants (*agree* - [ə'-griː], *admit* [əd'-mɪt]).

3) English diphthongs are unisyllabic, they consist of one vowel phoneme, English triphthongs are disyllabic, because they consist of two vowel phonemes (*science* ['saɪ - əns]).

5.4. Functional Aspect of the Syllable

The syllable performs three functions: constitutive, distinctive, identificatory. They are closely connected.

1. *Constitutive function*. Syllables constitute words, phrases and sentences. The phrase- and sentence-constitutive function of the syllable manifests itself indirectly.

2. *Distinctive function*. The syllable is characterized by its ability to differentiate words and word-forms.

There are rather many combinations in English distinguished from each other by means of the difference in the place of the syllabic boundary:

a name [ə'neɪm] – *an aim* [ən'eɪm], *ice cream* ['aɪs 'kri:m] – *I scream* [aɪ 'skri:m].

The distinctive function of the syllable boundary makes it possible to introduce the term “juncture”. Close juncture occurs between sounds within one syllable (*a name*, *I scream*): in the first example the close juncture is between [n] and [eɪ], in the second – between [s] and [k]. Open juncture occurs between two syllables. If to mark open juncture with / + /, then in the examples under study it will occur between *a + name*, *I + scream*.

3. *Identificatory (recognitive) function*. This function is conditioned by the pronunciation of the speaker. The listener can understand the exact meaning of the utterance only if he perceives the correct syllabic boundary *pea stalks* (стебли гороха) – *peace talks* (мирные переговоры). The existence of such pairs demands special attention to teaching not only the correct pronunciation of sounds but also the observation of the correct place for syllable boundary.

5.5. Graphic Characteristics of the Syllable

Parts of orthographic and phonetic syllables do not always coincide so it is very important to observe correct syllable division when necessity arises to divide a word in writing. Division of words into syllables in writing (syllabographs) is based on morphological principles. The morphological principle of word division in orthography demands that the part of a word, which is separated, should be either a prefix, or a suffix, or a root: *be-fore, un-divided, utter-ance*. However, if there are two or three consonants before *-ing*, these consonants can be separated in writing: *gras-ping, puz-zling*.

Words can be divided in writing according to their syllabic structure (*un-kind-li-ness*) or they can also be divided according to their meaning (*spot-light*).

The following rules can help with dividing a word in writing:

- never divide a word within a syllable;
- never divide a suffix of two syllables such as *-able*, *-ably*, *-fully*;

– with the exception of *-ly*, never divide a word so that an ending of two letters such as *-ed, -er, -ic* begins the next line;

– never divide a word so that one of the parts is a single letter;

– never divide a word of one syllable;

– never divide a word of less than five letters.

The system of syllable formation and syllable division in Russian has some peculiarities in contrast with English. In Russian the single intervocalic consonant between two phonetic syllables belongs to the next vowel, in English it tends to belong to the preceding one. In the system of the Russian language all consonants can begin a syllable, while in English there is an exception - [ŋ]. In Russian open syllables occur three times more often than closed ones.

There are some restrictions on the possible consonant clusters in English and in Russian. Final clusters in English are much more complex than initial ones. The structure of the Russian syllable is characterized by more complex and numerous initial clusters.

Questions:

1. What is the syllable?
2. What theories of syllable formation do you know?
3. What do you know about syllable formation?
4. What sonorous sounds are syllabic?
5. When does a sonorant lose its syllabic character?
6. What types of the syllable are there in English?
7. What types of syllables are the most widely spread in English and in Russian?

8. What do you know about syllable division?
9. What functions does the syllable perform?
10. What are the rules of dividing a word in writing?

Give definitions of the following phonetic terms: *syllabic sounds, syllable, syllable pattern, syllobograph.*

Exercises:

1. Give syllabic structural patterns of the following words:

pat, fact, lifts, plan, go, stay, eat, spray, asks, screams, students, split, flint, stamps, do, spy, pit.

2. Give syllabic structural patterns of the following words and arrange them into columns according to the type of syllabic structure:

write, pay, act, blur, err, orphan, mortal, sector.

3. Divide these words into phonetic syllables and give their syllabic structural patterns:

table, curtain, chaos, poet, paying, sewing, eyelid, murmur, border, April, about, pretty, along, wide, let, bit, army, finger, mixture, question, funny, petty, money, city, measles, cotton, little, pardon, season, hundred, writer, meeting, voices, housing, seeing, writing, music, skating, naturally, topic, measure, agree, abrupt, admire, maker, raging, lately, later, tired, teacher, former, learning, paper, owner, fighter, ago, elect, idea, admit.

4. Arrange these words into three columns according to the type of syllable structure: (a) closed uncovered, (b) closed covered, (c) open covered:

took, pray, lifts, at, straw, boy, aunt, texts, clenched, tip, pea, struck, strays, elks, thrust, bet, fact, fret, asks, ebbed, price.

5. Divide these words into syllabographs (where possible):

parents, fire, plural, rural, dinner, marry, disappear, speaking, writing, playing, walking, standing, passing breakfast, potatoes, tomatoes, coffee, cabbage, bananas, berries, pudding, pears, beer, shopping, ironing, housework, mistake, fishing.

6. Mark with / + / open juncture in the examples below. Turn them into examples with close juncture:

a name for it, a black tie, not at all, I saw her rice, I saw them eat, gray day, keep sticking, my train, why choose, a nice house, a nation, it swings.

7. Transcribe the following words, show the point of syllable division in each of them by putting a bar between the syllables and define each type of syllable.

reading, ready, standing, nature, picture, brightly, finish, many, pity, putting, pupil, flower, during, Mary, marry, starry, merry, study, enjoying, without, another, over, discover, father, story, brother, sorry, hurry, early, houses, stony, nearer, preparing, buyer, destroyer, power, poorer, August, September, modern, bedroom, orchard, dinner, breakfast, parents.

CHAPTER 6

Word Stress

6.1. The Nature of Word Stress.
6.2. Types of Word Stress.
6.3. Degrees of Word Stress.
6.4. Placement of Word Stress.
6.5. Tendencies in the Placement of Word Stress.
6.6. Functions of Word Stress.

6.1. The Nature of Word Stress

The sequence of syllables in the word is not pronounced identically: some syllables are more prominent than the others. They are called stressed syllables. Therefore, *stress* is a greater degree of prominence of a syllable or syllables as compared to the other syllables of the word. A particular combination of varying prominence of syllables in a word forms its *stress pattern*.

Stress is defined differently by different scientists. B.A. Bogoroditsky defined stress as in increase of energy, accompanied by an increase of expiratory and articulatory activity. D. Jones defined stress as the degree of force, which is accompanied by a strong force of exhalation and gives an

impression of loudness. H. Sweet also stated that stress is connected with the force of breath. A.C. Jimson admits that a more prominent syllable is accompanied by pitch changes in the voice, quality and quantity of the stressed sounds.

The nature of word stress can be studied from the point of view of production and perception; the two are obviously closely related but are not identical. The production of stressed syllables requires more muscular energy. Greater muscular effort and muscular activity produce higher subglottal pressure and an increase in the amount of air expelled from the lungs. On the acoustic level this extra articulatory activity leads to the increase of intensity, duration and fundamental frequency of the stressed syllable. On the perception level it corresponds to the increase of loudness, length and pitch.

The effect of prominence of the stressed syllable is achieved by a number of phonetic parameters such as pitch, loudness (force of utterance), length, vowel quality or their combination. As a result, there appears a contrast between stressed and unstressed syllables.

If to compare stressed and unstressed syllables in the words *contract* ['kɒntrækt] *договор* and *to contract* [kən'trækt] *заключать договор*, one may note that in the stressed syllable:

– the force of utterance is greater, which is connected with more energetic articulation;

– the pitch of the voice is higher, which is connected with stronger tenseness of the vocal cords and the walls of resonance cavity;

– the quantity of the vowel [æ] in [kən'trækt] is greater, the vowel becomes longer;

– the quality of the vowel [æ] in the stressed syllable is different from the quality of this vowel in the unstressed position, in which it is more narrow.

Generally, these four factors work together in combination, though syllables may sometimes be made prominent by means of only one or two of them. Experimental work has shown that these factors are not equally important. The strongest effect is produced by pitch and length. Loudness and quality have much less effect.

Word stress can be defined as the singling out of one or more syllables in a word, which is accompanied by the change of the force of utterance, pitch of the voice, qualitative and quantitative characteristics of the sound, which is usually a vowel.

Stress in connected speech is termed *sentence stress*.

6.2. Types of Word Stress

The balance of the components of word stress may be different in different languages, so we can distinguish different types of word stress.

If special prominence in a stressed syllable or syllables is achieved by greater force with which the syllable is pronounced, such type of stress is called *dynamic* (*force*) stress. European languages such as English, German, French, Russian, have dynamic word stress.

If special prominence in a stressed syllable is achieved mainly through the change of pitch, or musical tone, such type of stress is called *musical* (*tonic*) stress. It is characteristic of the Japanese, Korean and other oriental languages.

If special prominence in a stressed syllable is achieved through the changes in the quantity of the vowels, which are longer in the stressed syllables than in the unstressed ones, such type of stress is called *quantitative*.

Qualitative type of stress is achieved through the changes in the quality of the vowel under stress.

English word stress is traditionally defined as dynamic, but in fact, the special prominence of the stressed syllables is manifested in the English language not only through the increase of intensity, but also through the changes in the vowel quantity, consonant and vowel quality and pitch of the voice.

Russian word stress is not only dynamic but mostly quantitative and qualitative. The length of the Russian vowels always depends on the position in a word. The quality of the unstressed vowels in Russian may differ greatly from the quality of the same vowels under stress.

All English vowels may occur in stressed syllables, the only exception is [ə], which is never stressed. English vowels [ɪ, ʊ, əʊ] tend to occur in unstressed syllables. Syllables with the syllabic [l, m, n] are never stressed. Unstressed diphthongs may partially lose their glide quality.

6.3. Degrees of Word Stress

The syllables in a word are characterized by different degrees of prominence. Objectively, there are as many degrees of stress in a word as there are syllables (stress is distributed through the word).

In English they generally distinguish three degrees of stress: *primary* (*strong, main, principal*), *secondary* (*half-strong, half-stressed*) and *weak* (*unstressed*).

American phoneticians distinguish four contrastive degrees of word stress: primary, secondary, *tertiary* and weak. Tertiary stress does not show much difference from secondary stress, but it has a different placement in a word. It is generally associated with American English, where it marks the last but one syllable in the words with suffixes *-ary*, *-ory*, *-ony* (*ˌrevo'lutioˌnary, 'dictioˌnary).*

However, in terms of teaching English as a foreign language the British conception of three degrees of word stress is more acceptable.

Stress is indicated in transcription by placing the stress mark before the symbol of the first sound of the stressed syllable. Primary stress is marked by a raised short vertical stroke and secondary stress is marked by a lowered one: *examination* [ɪgˌzæmɪ'neɪʃ(ə)n]. Most English scientists do not mark monosyllabic words.

In the Russian word-stress system there are two degrees of word stress: primary and weak. The stress marks in the Russian phonetic tradition are placed above the stressed vowels.

6.4. Placement of Word Stress

According to its placement in a word, stress can be *fixed* and *free*. In languages with a *fixed* stress, the position of the word stress is always the same. It is restricted to a particular syllable in a multisyllabic word. For example, in French word stress is normally fixed on the last syllable of the

word, in Finnish and Czech it falls on the first syllable, in Polish it falls on the last but one syllable.

In languages with a *free* stress, its location is not confined to a specific position. It can fall on any syllable of the word. The number of languages with free word stress is relatively small: English, Russian, Italian, Greek, Spanish and some others.

In English (as well as in Russian) the word stress is not only free, but it is also *shifting*, which means that it can change its position in different forms of the word and its derivatives ('*music – mu'sician*).

To define the position of word stress in each individual word it is necessary to take into account a number of factors:

- phonological structure of the syllables;
- the number of syllables in the word;
- morphological factor (whether the word is simple, complex or compound);
- the part of speech the word belongs to (noun, verb, adjective, etc.).

1) The phonological structure of the syllable is related to the status of a particular syllable in terms of the degree of sonority. The sounds that possess a greater degree of sonority contribute to the greater prominence of the syllable. A syllable is considered to be strong when it contains a long vowel or a diphthong or a short vowel followed by two consonants. For example, in English verbs the stress falls on the last syllable if it is strong and on the last but one syllable if the last one is weak (*a'rrive - de'velop*).

2) The number of syllables in a word influences the number of stresses and to a certain extent the position of stress. There are stress patterns typical of two-syllable words, three-syllable words and so on. In multi-syllable words there appears secondary stress.

3) Morphological factor shows that in complex words the placement of stress depends on the type of suffix. Suffixes are divided into those which do not affect the stress placement in the stem (*stress-neutral*), those which influences stress in the stem (*stress-fixing*) and those which carry stress themselves (*stress attracting*).

In the words with stress-neutral suffixes the stress remains on the same syllable in the stem (*re'fuse - re'fusal, 'comfort - 'comfortable*). This group of suffixes includes: *-al, -able, -en, -ful, -ing, -ish, -less, -ness, -ly, -ment*, and others. Stress-fixing suffixes (*-ion, -ic, -ity, -ial, -ive*) determine the placement of stress on a particular syllable of the stem and attracts stress to the syllable that precedes them, i.e. the last syllable of the stem (*'curious - curi'osity*). Stress attracting suffixes include such suffixes as *-ade, -eer, -ee, -esque, -ette -ain* (*ˌrefu'gee, ˌciga'rette*). But in some cases this factor is to be considered together with another one – the number of syllable in a word. For example, the verbal suffix *-ate* is stress attracting in the words containing two syllables (*mig'rate*), and in words containing more than two syllables it is stress-fixing: it fixes the stress on the third syllable from the end (*com'municate*).

Compound nouns contain more than one root or more than one word, but they function as one word. The rules of word stress in such words will be presented later in the text.

4) The fourth factor to be considered is the grammatical category the word belongs to. The influence of this factor can be illustrated by the pairs of words, in which adjectives and nouns are contrasted to verbs: *'insult – to in'sult, 'record – to re'cord, 'present – to pre'sent*.

6.5. TENDENCIES IN THE PLACEMENT OF WORD STRESS

Phoneticians generally distinguish the following tendencies in the placement of word stress: *recessive tendency*, *rhythmic tendency*, *retentive tendency* and *semantic factor*.

Recessive tendency is the tendency to stress the beginning of the word. It can be of two sub-types. Unrestricted recessive tendency is observed in the native English words with no prefix ('*mother, 'daughter, 'brother, 'swallow*) and in assimilated French borrowings ('*reason, 'colour*). Restricted recessive tendency is characterized by placing the word stress on the root of the word if this word has a prefix, which has lost its meaning (*fore'see, with'draw, be'gin*).

The *rhythmic (rhythmical) tendency* reflects the rhythm of alternating stressed and unstressed syllables. This tendency caused the appearance of the secondary stress in the multisyllabic French borrowings (*ˌrevo'lution, ˌorgani'sation*). It also explains the placement of primary stress on the third syllable from the end in three- and four-syllable words ('*cinema, sig'nificant*). The interrelation of recessive and rhythmic tendencies can be traced in borrowed three-syllable words ('*family, 'library, 'faculty*). In most cases, however, these two tendencies contradict each other, which leads to the existence of such accentual variants as '*hospitable – hos'pitable*, '*distribute – dist'ribute*. The stress on the initial syllable is caused by the diachronical recessive tendency and the stress on the second syllable is under the influence of rhythmic tendency. In sentences, words with two stresses can be pronounced with one singular stress under the influence of rhythm: *ˌthir'teen* / *Her 'number is 'thirteen ˌhundred*. Under the influence

of rhythm compounds of three elements may have a strong stress on the second element (*hot ’water bottle, waste ’paper basket*). The rhythmic tendency is very strong in modern English.

The third tendency is called *retentive*. A derivative retains the stress of the original word ('*similar – as'similate*). Sometimes in the derivative the primary stress of the original word turns into secondary stress ('*demonstrate – ˌdemonst'ration*).

The *semantic factor* is observed in compound words. The stress generally falls on the elements, which have a greater semantic, distinctive weight. For example, in such pairs as *’gentleman – ’gentle ’man*, *’blackboard – ’black ’board* the placement of stress on the first morpheme signifies that these words have a single meaning, which is not made up from the meanings of their sub-parts. Two equal stresses on both parts of these word combinations show that each element has its own meaning. The semantic factor is also observed when the first element of the compound is more important (*’birthday*), when it is contrasted with some other word (*’flute player*, not *’violin player*), or when a compound is very common and frequently used (*’midsummer, ’midnight*).

Given below are the most common rules of word-stress in English:

Two-syllable words:

– if a word is a verb the basic rule is that if the second syllable contains a long vowel or a diphthong, or if it ends with more than one consonant, the second syllable is stressed: *apply* [ə'plaı], *assist* [ə'sıst]; if the final syllable contains a short vowel and one (or no) final consonant, the first syllable is stressed: *enter* ['entə], *open* ['əʊpən]; a final syllable is unstressed if it contains [əʊ]: *follow* ['fɒləʊ];

– two-syllable simple adjectives are stressed according to the same rule: *lovely* ['lʌvlɪ], *alive* [ə'laɪv] (as with most stress rules there are exceptions: *honest* ['ɒnɪst] – ends in two consonants);

– nouns require a different rule – if the second syllable contains a short vowel the stress is usually on the first syllable, otherwise it is on the second syllable: *money* ['mʌnɪ], *estate* [ɪs'teɪt];

– other two-syllable words such as adverbs and prepositions seem to behave like verbs and adjectives.

Three-syllable words:

– in verbs if the last syllable contains a short vowel and ends with not more than one consonant, that syllable is unstressed, and stress is on the preceding syllable: *determine* [dɪ'tɜːmɪn]; if the final syllable contains a long vowel or a diphthong, or ends with more than one consonant, that final syllable is stressed: *entertain* [ˌentə'teɪn];

– in nouns if the final syllable contains a short vowel or [əʊ], it is unstressed; if the syllable preceding this final syllable contains a long vowel or a diphthong, or if it ends with more than one consonant, that middle syllable will be stressed: *disaster* [dɪ'zɑːstə]; if the final syllable contains a short vowel and the middle syllable contains a short vowel and ends with not more than one consonant, both final and middle syllables are unstressed, and the first syllable is stressed: *cinema* ['sɪnəmə];

– adjectives seem to need the same rule: *insolent* ['ɪnsələnt].

Words with suffixes or prefixes:

– in words with prefixes the primary stress typically falls on the syllable following the prefix: *im*'*possible*, *re*'*call*;

– in words with prefixes with their own meaning, the place of secondary stress is on the prefix: *ˌex-'minister, ˌanti-'capitalist*;

– in prefixal verbs which are distinguished from similarly spelt nouns and adjectives, the place of stress is on the second syllable, nouns and adjectives have their stress on the initial syllable: *to com'pound* - '*compound*, *to in'crease - 'increase*;

– suffixes *-esce, -esque, -ate, -ize, -fy, -ette, -ique, -ee, -eer, -ade* have the place of stress on themselves (or on the preceding syllable): *ˌmari'nade, ˌspecia'lize*;

– suffixes *-ical, -ic, -ion, -ity, -ial, -cient, -iency, -eous, -ual, -uous, -ety, -itous, -ive, -ative, -itude, -ident, -inal, -ital*, *-wards* have the place of stress on the preceding syllable: *eco'nomic, ma'jority*;

– in words of 4 or more syllables the place of stress is on the antepenultimate syllable (third form the end): *e'mergency, his'torical*.

In compound words the first element is stressed when:

– compounds are written as one word: *'appletree, 'bedroom*;

– nouns are compounded of a verb and an adverb: *'pickup, 'make-up*;

– nouns in the possessive case are followed by another noun: *'doll's house, 'lady's maid*;

In compound words the second element is stressed when:

– food items have the first element which is of a material used in manufacturing the whole: *ˌapple 'tart*;

– parts of the house and other buildings are implied: *ˌfront 'door*;

– adjectives with past participles characterize people: *ˌthick 'skinned*;

– compound nouns ending in *-er* or *-ing* are followed by adverbs: *ˌpasser'by*;

– the first element of compounds is a number: *second-'class, three-'wheeler*;

– compounds function as adverbs: *head-'first*;

Two equal stresses are observed:

– in composite verbs: *to 'give 'up* (in speech stress may be neutral);

– in numerals from 13 to 19: *ˌsix'teen*.

According to the data given by Russian and foreign phoneticians the most common types of English stress pattern are: '_ _ (*after*), _ '_ (*before*), '_ _ _ (*family*), _ '_ _ (*importance*).

All the rules have exceptions and the learner of English may feel that the rules are so complex that sometimes it is best to learn the stress for each word individually when the word itself is learned. Besides, learners of English should be aware of the fact that some words have two variants of stress and they are both considered to be correct: *kilometer* [kı'lɒmıtə], ['kıləmı:tə].

6.6. Functions of Word Stress

Word stress performs the following functions:

Word stress organizes the syllables into a word. It creates a particular pattern of relationships among syllables, making some syllables more prominent than others and shapes the word as a whole. Thus word stress performs the *constitutive function*.

Word stress makes it possible for the listener to identify a succession of syllables with a definite recurrent stress pattern as a word. In other words, it helps us to recognise the word in the chain of speech. This function is called *recognitive* (*identificatory*).

Word stress is capable of differentiating the meaning of words or their forms, thus performing its *distinctive function*. Primary stress placement can distinguish the grammatical category of the word in the opposition ('*import* – *im'port*), the meaning of the word ('*billow* – *be'low*), compound nouns from free word combinations ('greenhouse – 'green 'house).

Questions:

1. What is stress on the auditory, articulatory and acoustic level?
2. What types of word stress do you know?
3. What is the difference between fixed and free type of word stress?
4. How does stress perform constitutive, distinctive and recognitive functions?
5. What is the terminology suggested by different authors to distinguish between different degrees of word stress?
6. What factors determine the place and different degree of word stress?
7. What tendencies affect the position of word stress in English?
8. What are the rules of word stress in English?

Give definitions of the following phonetic terms: *dynamic stress, fixed stress, free stress*, *musical stress, primary stress*, *qualitative stress, quantitative stress, secondary stress, shifting stress, word stress.*

Exercises:

1. Read the words below paying attention to the position of the secondary stress:

centralization, modification, composition, nationalization, administration, organization, anticipation, intersession, overbalance, justification, hospitality, satisfactory, sentimentality, impossibility, artificial, uncountable, qualification, consideration, examination, temperamental, pronunciation, ornamentation, fundamental, distribution, representation, characteristic, interrogation.

2. Put down stress marks in the words below. Consult the dictionary. Translate them into Russian and read according to the stress pattern:

ascertain, acquiesce, grotesque, cigarette, antique, saloon, employee, career, lemonade, atomic, phonetic, phonological, familiarity, beneficial, efficient, aqueous, residual, impetuous, propriety, active, relative, gratitude, attitudinal.

3. Provide these words with necessary stress marks:

birdcage, coalmine, teapot, daybreak, birthday, pillowcase, housewife, schoolboy, timetable, hairdo, sheepdog, fireplace, washstand, mailbag, dance music, grandfather, handwriting, shopkeeper, ladybird, office-boy, waiting room, dinner jacket, tape recorder, ground floor, knee-deep, cross-question, flat-footed, shop window, hot-water-bottle, waste-paper-basket, postgraduate, secondhand.

4. Transcribe the words and put down stress marks in these verbs and nouns. Translate them into Russian.

absent n – absent v; compress n – compress v; consort n – consort v; combine n – combine v; concert n – concert v; desert n – desert v; outlay n – outlay v.

5. Read the sentences below to prove the distinctive function of the stress. Translate them into Russian.

1. *The abstract is short. Abstract this theory*. 2. This *accent is on the first syllable. Mark it with a weak accent. He accents the word. It's the word "**son**" you are to accent.* 3. *A conflict took place. They conflict with this theory. It's finished in a conflict. Still, they conflict.* 4. *The contest was friendly. They contest this statement. It's a contest. They contest it.* 5. *Export is forbidden. These islands export sugar and fruit*. 6. *He is a suspect. He is the man we suspect. I began to suspect they were trying to get rid of me. He is the prime suspect in the case*. 7. *The riot began as a peaceful protest. Students took the streets to protest against the decision. This protest was wrong. They decided to protest*. 8. *The work you did today is quite a contrast to what you did last week. Contrast Tom with his sister. These two colours contrast very well. In contrast to their neighbours, they live modestly*.

6. Define word stress of the words given below in respect of its position.

finish, together, malice, family, qualify, agitate, apologise, remarkable, educated, interesting.

7. Mark stresses in the following words and explain the location of the stress.

mother, ready, misbehave, sub-librarian, put on, take off, watchdog, bedroom, fifteen, seventeen.

CHAPTER 7

Intonation

7.1. Definition of Intonation.
7.2. Components of Intonation.
7.3. The Structure of Intonation Pattern.
7.4. Sentence Stress and Rhythm.
7.5. Functions of Intonation.
7.6. Stylistic Use of Intonation.

7.1. Definition of Intonation

M.A. Sokolova and other scientists state that the flow of speech does not consist only of segmental units (speech sounds), there are also other phonetic means that characterize a sequence of speech sounds. They are called *suprasegmental* or *prosodic means*. *Intonation* is a complex unity of these prosodic features of speech: melody (pitch of the voice); sentence stress; temporal characteristics (duration, tempo, pausation); rhythm; timber (voice quality). The term "prosody" is widely used in linguistic literature alongside with the term "intonation" but in the broad sense. Intonation organizes a sentence, determines communicative types of sentences and clauses, divides sentences into intonation groups, gives

prominence to words and phrases, expresses contrasts and attitudes. There are no sentences without a particular intonation and we cannot express any meanings without it.

Intonation can be described on the acoustic level (in terms of its acoustic characteristics), on the perception level (in terms of the characteristics perceived by a human ear) and on the linguistic level (in terms of meanings expressed by intonation) according to M.A. Sokolova.

There exist different approaches to the description of intonation and different definitions of this phenomenon.

According to most Russian phoneticians, intonation on the perception level is defined as a complex, formed by significant variations of *pitch, loudness and tempo* (the rate of speech an pausation) closely related. There are definitions that also include timbre, which is sometimes regarded as the fourth component of intonation by some linguists (it shows the speaker's emotions, such as joy, sadness, irony, anger, indignation, etc.).

In the British and American tradition intonation is restricted to the pitch (tone) changes only. Intonation is identified with pitch movements (melody), because pitch has the greatest linguistic value.

Russian phoneticians have a broader view of intonation. They are convinced that it is impossible to restrict intonation to pitch parameters only because generally all the three prosodic parameters function as a whole.

There are different methods of indicating intonation, but the most vivid are staves (two horizontal parallel lines which represent the approximate upper and lower limits of the pitch range of the voice in speech) with dots, dashes and curves (which correspond to unstressed and stressed syllables

within the voice range) which are placed on different levels and tonetic symbols (used in the line of the text itself). They are widely used in textbooks.

7.2. Components of Intonation

The components of intonation can be viewed on the acoustic level. Each of them has its own acoustic correlate and can be objectively measured. Pitch correlates with frequency of the vibrations of the vocal cords, loudness correlates with intensity, tempo correlates with time (duration) during which a speech unit lasts.

Pitch is usually described as a system of tones (*fall, rise, fall-rise* and so on), pitch levels (keys, registers), which can be high, medium and low, and pitch ranges (intervals between the highest and the lowest pitched syllables), which can be wide, normal and narrow.

Pitch performs the constitutive function within a sentence. It manifests itself in the fact that each syllable in a sentence has certain pitch and cannot exist without it. Simultaneously pitch performs the delimitative function both within a sentence and at its end. Within a sentence it consists in delimiting from each other its portions, which are known as sense-groups or intonation groups or syntagms (their definitions and descriptions will be given further in the text). Variations of pitch at the end of a sentence delimit it from the following sentence.

Loudness is described as normal, increased or low.

Tempo includes rate of speech and pausation. The rate of speech can be normal, slow and fast. The parts of the utterance which are particularly

important are usually pronounced at a slow rate, while in less important parts the rate of speech tends to be faster.

Any stretch of speech can be split into smaller segments by means of pauses. A *pause* is a complete stop of phonation. Pauses are classified according to their length, their position in the utterance and their function. In teaching English intonation, it is sufficient to distinguish the following types of pauses:

– short pauses which may be used to separate intonation groups within a phrase;

– longer pauses which normally manifest the end of the phrase;

– very long pauses which are used to separate bigger phonetic units.

Pauses made between two sentences are obligatory. They are longer than pauses between sense-groups and are marked by two parallel bars (||). Pauses made between sense-groups are shorter than pauses made between sentences. They are marked by one bar (|).

Pauses are usually divided into filled and unfilled, corresponding to voiced and silent pauses.

Functionally there may be distinguished syntactic pauses (which separate phonopassages, phrases, intonation groups), emphatic pauses (which serve to make some parts of the utterance especially prominent) and hesitation pauses (which are mainly used in spontaneous speech to gain some time to think over what to say next). Besides the segmentation of the speech continuum, pauses contribute to the temporal and rhythmical organization of speech (constitutive function).

All the components of intonation are closely interconnected in the processes of speech production and speech perception.

7.3. THE STRUCTURE OF INTONATION PATTERN

The basic unit of intonation is an *intonation pattern*: pitch movements (which are inseparably connected with variations of loudness) and tempo. Intonation patterns serve to actualize syntagms in oral speech. A *syntagm* (sense-group) is a group of words which is semantically and syntactically complete. In phonetics actualized syntagms are called *intonation groups*. Each intonation group can consist of one or more potential syntagms. For example, the sentence *I think he is coming soon* has two potential syntagms: *I think* and *he is coming soon.*

A phrase (a sentence actualized in oral speech) can contain one or several intonation groups. The number of intonation groups depends on the length of the phrase and the semantic importance given to various parts of the phrase:

This ’bed was ’not ’slept ˎin.

ˏThis bed | was ’not ’slept ˎin.

The intonation pattern may include the following components:

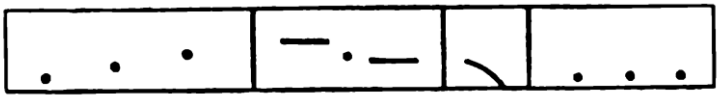
– the pre-head (unstressed and half stressed syllables preceding the first stressed syllable);

– the head, or scale (stressed and unstressed syllables up to the last stressed syllable);

– the nucleus, or nuclear tone (the last stressed syllable, within which fall or rise in the intonation group is accomplished);

– the tail (the syllables or on syllable that follow the nucleus).

It's been a 'very 'good ˌevening for me.



pre-head head nucleus tail

The head and the pre-head form the pr e-nuclear part of the intonation pattern. According to the changes in the voice pitch pre-heads can be rising, mid and low.

rising mid low

Heads (scales) can be *descending* (when the pitch gradually descends to the nucleus), *ascending* (when the syllables form an ascending sequence) and *level* (when all the syllables are more or less on the same level). According to the direction of pitch movement within and between syllables, descending and ascending heads (scales) can be stepping, sliding and scandent.

The most important part of the intonation pattern is the nucleus, which carries *nuclear tone*. The intonation pattern cannot exist without it. The nucleus can be described as a syllable which is marked by a significant change in pitch direction (where pitch goes distinctly up or

down). It has greater prominence than the other syllables. The nucleus indicates the *communicative centre* of the intonation group, defines the communicative type of the sentence and determines the semantic value of the intonation group. The communicative centre is associated with the most important word of the intonation group.

The nuclear tones are generally classified into *simple* (Low Fall, Low Rise, High Fall, High Rise), *complex* (Fall-Rise, Rise-Fall) and *compound* (Rise + Fall + Rise). Different phoneticians distinguish different nuclear tones which are considered to be the most important from their point of view. It is possible to give a very general overview of the basic nuclear tones.

The falling tones of any level and range convey completeness, finality, certainty and independence; they are categorical in character: *Where is John? – He 'hasn't ˎcome yet.*

The rising tones of any level and range are incomplete, uncertain and non-categorical. They convey the impression that the conversation is not finished and something else is to follow. The rising tone is used when the speaker wants to encourage further conversation: *'Are you ˌready?*

The rising tones are frequently used in polite requests, invitations, greetings, farewells and other cases of social interaction.

The Fall-Rise (it consists of a fall in pitch followed by a rise) is often used in English and expresses a variety of meanings. When used at the end of the phrase it asserts something and at the same time suggests that there is something else to be said: *It's very interesting. – ˇYes.*

This tone can also be used in non-final intonation groups. It indicates that another point is to follow: *'When I 'come ˇback | we will 'talk about it aˎgain*.

The Fall-Rise is also chosen by speakers when they want to refer to something already mentioned in the conversation or to the information shared by the interlocutors.

Level tone is used in short utterances when it conveys a feeling of saying something routine, uninteresting and boring. It also frequently used in intonation groups boundaries to convey non-finality.

Mid-level tone is particularly common in spontaneous speech. It may convey hesitation and uncertainty.

Rise-Fall and Rise-Fall-Rise tones add refinement to speech, but it is generally recommended to introduce them at the advanced level, when foreign learners have already mastered the basics of English intonation.

The tone of a nucleus determines the pitch of the tail. After a falling tone the rest of the intonation pattern is at a low pitch. After a rising tone the rest of the intonation pattern is in an upward pitch direction. The nucleus and the tail form what is called *terminal tone*.

The head, the pre-head and the tail are optional elements of the intonation pattern. An intonation pattern can consist of only one syllable, which is its nucleus.

The meaning of the intonation group is the combination of the meanings conveyed by the terminal part, the pre-nuclear part, the pitch level and the pitch range. Obviously the elements of the intonation pattern can be combined in various ways and express a variety of meanings. But in teaching it is necessary to select a limited number of intonation patterns which are frequently used in English discourse and have a particular communicative value.

7.4. Sentence Stress and Rhythm

Sentence stress is a greater prominence of words, which are made more or less prominent in an intonation group. The special prominence of accented words is achieved through the greater force of utterance and changes in the direction of voice pitch, constituting the nuclear tone.

The difference between stress and accent is based on the fact that in the case of stress the dominant perceptual component is loudness, in the case of accent it is pitch. Degrees of stress in an utterance correlate with the pitch range system. Nuclear stress is the strongest, because it carries the most important information. Non-nuclear stresses are subdivided into full and partial. Full stress occurs only in the head of an intonation group, partial stress occurs in the pre-head and tail.

In an intonation group stress may undergo alternations under the influence of rhythm, but there are some rules concerning words that are usually stressed or unstressed in an utterance.

The words that are usually stressed (the notional parts of speech): nouns; adjectives; numerals; interjections; demonstrative pronouns; emphatic pronouns; possessive pronouns (absolute form); interrogative pronouns; indefinite pronouns *somebody, someone, something, anybody, anyone, anything* used as subject; indefinite negative pronouns *no, none, no one, nobody, nothing*; indefinite pronouns *some, any* (expressing quality); determinatives *all, each, every, other, either, both*; pronouns *much, many, a little, a few*; notional verbs; auxiliary verbs (negative

contracted forms); two-word prepositions; two-word conjunctions; particles *only, also, too, even, just*.

The words that are usually unstressed (form-words): personal pronouns; reflexive pronouns; reciprocal pronouns; relative pronouns; possessive pronouns; indefinite pronouns somebody*, someone, something, anybody, anyone, anything* used as object; indefinite pronouns *some, any* (expressing quantity); auxiliary verbs (affirmative form); one-word prepositions and conjunctions; articles; particles *there, to*; modal verbs (contracted forms and general questions are exceptions).

It is necessary to point out that any word in a sentence may have logical stress (*He 'is a student. – Он действительно студент*.). A word which is made prominent by logical stress may stand at the beginning, in the middle or at the end of a sense group, and it is usually the last stressed word in it. Sentence stress on words following logical stress either disappears or become weak. Besides, form-words may be stressed in some special cases.

In the Russian language nearly all the words in a sentence are usually stressed, with the exception of prepositions.

Rhythm is the regular alternation of stressed and unstressed syllables. In connected English speech stressed syllables have a strong tendency to follow each other as nearly as possible at equal intervals of time and the unstressed syllables occupy the time between the stressed syllables. The greater is the number of unstressed syllables the quicker they are pronounced. The phenomenon of rhythm is closely connected with the phonetic nature of stress. The basic unit of the rhythmical structure of an

utterance is the *rhythmic group* (a speech segment containing a stressed syllable and unstressed syllables attached to it). A sense group may consist of one or more rhythmic groups. The perception of boundaries between rhythmic groups is associated with the stressed syllables or peaks of prominence.

Unstressed syllables have a tendency to cling to the preceding stressed syllables – *enclitics*, or to the following stressed syllables – *proclitics*. In English, as a rule, only initial unstressed syllables cling to the following stressed syllable, non-initial unstressed syllables are usually enclitics.

Rhythm is connected with sentence stress. Under the influence of rhythm words which are normally pronounced with two equally strong stresses may lose one of them, or may have their word stress realized differently. The word immediately preceded by a stressed word loses its first stress; the word immediately followed by a stressed word loses its second stress:

He is ’fifteen ’years ˌold.
He is ’just fifˌteen.

7.5. Functions of Intonation

Because of the complex nature of intonation there is no agreement among scientists about the functional aspect of intonation. Different phoneticians name, describe and classify the functions of intonation in different ways. But it is important to recognize nowadays that the basic

function of intonation is *communicative*. It has a great value for expressing ideas and emotions and contributes to mutual understanding between people. One of the aims of communication is the exchange of information between people. The meaning of an utterance derives not only from the grammatical structure and the lexical composition but from variations of intonation as well. Other functions of intonation may be regarded as the realization of the communicative function.

Intonation serves to structure the text and thus performs the *organizing function*. On the one hand, it delimitates the text into smaller units (*delimitative function*), on the other hand, it ties smaller units into bigger ones (*constitutive function*). These two processes take place simultaneously.

Intonation is capable of distinguishing the syntactic (communicative) type of the sentence, thus performing the *distinctive* function. In other words, intonation can indicate whether the utterance is a statement, a question, a command or an exclamation:

'Will you 'stop ˎtalking? (command)

'Will you 'stop ˌtalking? (request).

It can be seen from these examples that it is the change of the nuclear tone that leads to the change of the syntactic type of the sentence.

Intonation helps to express attitudes of the speakers to what is said, to the listener or to the situation. It can convey a wide range of attitudes (*attitudinal function*). When people speak they can sound angry or happy, pleased or surprised, interested or indifferent, and so on. The same

sentence can be pronounced in different ways and thus express a variety of attitudinal meanings.

When can you do it? – ˎNow. (detached, reserved)

When did you finish? – `Now. (involved)

You are to do it right now. –ˇ Now? (astonished)

Intonation can also differentiate the actual meaning of the sentence. The change of the meaning is achieved by the opposition of nuclear tones:

Have you read the book? – Not ˎonce. (the speaker has not read the book)

Have you read the book? – Notˇonce. (the book has been read several times)

The change of the meaning can also be the result of the shift of terminal tone:

He's a 'French ˎteacher. (He comes from France.)

He's a ˎFrench teacher. (He teaches French.)

7.6. STYLISTIC USE OF INTONATION

Phonistylistics came into existence as an attempt to start bridging the gap between linguistic and extra-linguistic factors in analysing stylistic differentiation of oral texts. It is mostly concerned with *how* a person talks about something rather than *what* he talks about. In real life people find themselves in various situations and select those language means not only lexical and grammatical but phonetic means as well, which match the needs of every particular situation. Phonostylistics studies the way

phonetic means are used in this or that situation. Its aim is to analyse all possible kinds of utterances, then to identify all phonetic features both segmental and suprasegmental which are restricted to certain kinds of context and explain why such features have been used.

One of the objectives of phonostylistics is the study of functional phonetic (intonational) styles. A *phonetic style* can be defined as a system of intonational means which are used in a certain social sphere and serves a definite aim in communication.

Different scientists distinguish different phonetic styles and give their own classifications. But the most appropriate classification of phonetic styles is based on the idea that the main style forming factor is the purpose (or aim) of communication. According to this factor it is possible to single out the following phonetic styles (M.A. Sokolova):

- informational style
- academic (scientific) style
- publicistic (oratorical) style
- declamatory (artistic) style
- conversational (familiar) style.

In the real process of communication these styles can seldom be realized in their pure form. Each utterance may include phonetic characteristics of different styles.

The knowledge of these phonetic styles is very useful for learners of English and it can help them to communicate effectively in different situations. The awareness of stylistic variations of speech is necessary both

for the correct understanding of the conversation and for adequate producing of speech.

Informational style is considered to be neutral because the main purpose of the speaker is to convey some information and not to express his attitudes and ideas. In its pure form this style is realized in the written informational texts read aloud. Another realizations of informational style are press reporting, broadcasting (reading the news on the radio and TV), business and legal intercommunication, the reading of official and administrative documents and so on. The prosodic features of informational style are the following:

– the loudness is relatively normal throughout the text;

– the tempo is normal or it can be rather slow;

– the rhythm is systematic and organized properly;

– the most common terminal tone is a low falling tone (mid-level and low-rising tones may be used in non-final intonation groups).

Academic style is used when the main aim of the speaker is to educate or to instruct the listener. It is often realized in lectures, different discussions, at conferences and seminars in class. The person (lecturer) sounds self-assured and rather authoritative. The prosodic features of academic style are the following:

– the degree of loudness usually depends on the size of the audience;

– the rate is normal or slow (in the most important parts of the lecture);

– pauses are rather long and the rhythm is properly organized;

– the prevailing tones are high falling and fall-rising.

It should be born in mind that each particular public presentation is characterized by certain variations of prosodic features. It depends on the topic of the speech, the qualitative peculiarities and the number of listeners, the character of the relationship between the speaker and the audience (formal – informal) and the individual manner of the speaker (lecturer).

Publicistic style serves for many kinds of rhetorical activities (it is often called "oratorical"). Publicistic style is manifested in political, judicial, oratorical speeches, in sermons, parliamentary debates meetings, press conferences and so on. It is evident that intonation is of primary importance in publicistic style. It helps to make presentations more effective and to achieve excessive emotional colouring of the speech. Publicistic style speeches are never spontaneous. They are written and rehearsed beforehand (however, the speaker tries to create the effect of spontaneity to avoid the impression of complete preparedness). The purpose of this style is to stimulate and inspire the listeners. The speaker sounds self-assured, concerned and personally involved. On the prosodic level publicistic style is characterized by great variations of pitch, loudness, tempo and timbre:

– the loudness is enormously increased;

– the rate is moderately slow (to draw the listeners' attention to the most important parts);

– pauses are definitely long between the passages and sometimes voiceless hesitation pauses can occur to produce the effect of spontaneity;

– the rhythm is properly organized;

– the terminal tones are mostly emphatic and emotional; in non-final intonation groups falling-rising tones are frequent.

Declamatory style is also called artistic or stage. It is a highly emotional and expressive style and it needs special training. Declamatory style is used on the stage, in films or in prose and poetry recitations. It is always a written form of the language read aloud or recited. The speaker sounds concerned, personally involved and emotionally rich. The prosodic features of declamatory style are the following:

– the loudness varies according to the size of the audience and to the emotional setting;

– the rate is deliberately slow, but it can change depending on the importance of information and the degree of emphasis;

– pauses are long, especially between the passages;

– the rhythm is properly organized;

– terminal tones are mostly low and high falls (sometimes mid-level and rising tones are used to break the monotony).

Conversational style is the most commonly used phonetic style. It is realized in natural spontaneous everyday speech. The variations within this style are familiar to the great majority of English-speaking people. That is why it is called familiar. It is also heard in conversational interaction between the speakers. So it is generally called conversational. Some scientists call it informal, because it often occurs in informal relationships in the speech of relatives, friends and so on. This style is characterized by

peculiar features on the grammatical and lexical levels. On the prosodic level the following generalizations can be made:

– variations within the length of pauses, speed, rhythm, pitch ranges, pitch levels and loudness are great;

– intonation groups are rather short;

– the most common tones are falling and rising, and in highly emotional contexts emphatic tones occur;

– the tempo of colloquial speech is very varied; it is flexible;

– pauses may occur randomly.

Questions:

1. How is intonation defined?
2. What are the components of intonation?
3. What types of pauses are distinguished according to their length and function?
4. Give the definition of the intonation pattern. What are its components?
5. Speak on the sentence stress and rhythm.
6. What are the functions of intonation?
7. What is phonostylistics?
8. Speak on the stylistic use of intonation.

Give definitions of the following phonetic terms: *ascending scale, descending scale, head, intonation, intonation group, intonation pattern, melody, nucleus of an intonation group, pause, pre-head, rhythm, scale,*

sentence stress, speech melody, staves, syntagm (sense-group), tempo of speech, tail, timbre, terminal tone, tonogram.

Exercises:

1. Read these words with the six main tones: Low Fall (˩deed), Low Rise (˧deed), High Fall (˥deed), High Rise (˦deed), Fall-Rise (˨˩˦deed), Rise-Fall (˦˩˨deed):

feed, cord, window, matter, quarter.

2. Transcribe and intone the following sentences. Divide them into rhythmical groups:

1) *My books are fairly new*. 2) *It's easier to speak than to understand*.

3) *When did you last see your parents*?

3. Indicate the intonation of the following sentences on the staves, define all the parts of the intonation pattern and the communicative type of the sentence:

1) *He doesn't speak English*. 2) *What did you say*? 3) *This story was wonderful*. 4) *Such a beautiful girl!* 5) *Open your books at page five*.

4. Intone the following sentences, divide them into rhythmic groups. Identify enclitics and proclitics:

1) *She is eager to see them again*. 2) *She can give them a piece of advice*. 3) *Pete is an honest person*. 4) *Their child is as big as mine*. 5) *Bring six books*.

CHAPTER 8

Varieties of English Pronunciation

8.1. The Orthoepic Norm.
8.2. National Variants of English Pronunciation.
8.3. Regional Types of Pronunciation in Great Britain.
8.4. Regional Types of Pronunciation in the USA.
8.5. The Main Points of Difference between RP and GA.
8.6. Styles of Pronunciation.
8.7. The Choice of the Teaching Norm.

8.1. THE ORTHOEPIC NORM

There are two forms of a *national language* (the language of a nation and its literature): written (the literary language) and spoken (the speech of the nation). The written form of a national language is usually a generally accepted standard and it is the same throughout the country. Spoken language may vary from locality to locality. Such distinct forms of a language are called *dialects*. Dialects are distinguished from each other by differences in pronunciation, grammar

and vocabulary (when only the varieties in pronunciation are referred to, the word "accent" is used).

In fact, any language exists as a collection of forms coexisting side by side. These forms are known as *varieties* of the language. They can be observed and described. Among all the existing variants of pronunciation there is one which is considered to be *literary pronunciation* or *orthoepic norm.* Some phoneticians prefer the term *standard pronunciation*.

Literary pronunciation is a higher form as compared with other local variants of pronunciation. It can be defined as the elaborated variety of the national language in its spoken form which obeys definite norms recognized as standard and therefore acceptable in all kinds of discourse.

The orthoepic norm is the regulator which determines the inventory of the variants, the borders of variation and also acceptable and non-acceptable variants of pronunciation.

Literary pronunciation is the pronunciation used by educated people. It is maintained and extended by educational institutions, the radio and by television. It is recorded in pronunciation dictionaries. The existence of such literary norm is very important because it is the universal norm, i.e. understandable to all the population of the country and to all the native speakers of the language.

Within the literary pronunciation of the language there may be variants too. They are considered to be equally correct and acceptable (*direct* [dɪ'rekt], [daɪ'rekt]; *Sunday* ['sʌndeɪ], ['sʌndɪ]).

Natural changes in a language is normally a very slow process and many people are not aware that it is taking place. The orthoepic norm is also not fixed. It changes due to the normal evolution of the language, i.e. due to the linguistic factors and it changes as a result of the extra-linguistic factors (the movement of the population, for example). But the rate of these changes in not rapid.

8.2. National Variants of English Pronunciation

A language which is the mother tongue of more than one nation has national variants (types) of pronunciation. One of such languages is English. It is the national language of several countries (Great Britain, the United States of America, New Zealand and the greater part of Canada and South Africa). Today all the English-speaking nations have their own national variants. The pronunciation of every national variant has peculiar features that distinguish this variety from other varieties of English. These differences are determined by the new conditions of the development of the variant after the separation from British English. Though every national variant of English has considerable differences in pronunciation, lexis and grammar, they all have much in common because they are of common origin and they do not exist separately, they influence each other.

Within the varieties of English pronunciation English-based pronunciation standards (British English, Irish English, Australian English, New Zealand English, South Africa English) and American-based

pronunciation standards (American English, Canadian English) can be distinguished.

8.3. Regional Types of Pronunciation in Great Britain

Each national variety may fall into several regional standards. On the British Isles there are three standard regional types of pronunciation: (1) Southern English Pronunciation, (2) Northern English Pronunciation, (3) Standard Scottish Pronunciation. Welsh English and Northern Ireland English are also distinguished.

The term "Southern English" indicates the birth place of this variant and it does not mean that it is only used in the South of England. Southern English was basically the London form of the south-east dialect. Due to some political reasons, commerce and the presence of the court, the pronunciation of the south-east of England, and particularly that of the London region began to acquire an exceptional social prestige. In time it lost its local characteristics and in the 19th century was fixed as the speech of the educated people. After a while this type of pronunciation began to be recognized not so much as the pronunciation of some particular region but as a social standard. All the dialect-speaking people who were eager for social advancement had to modify their accent and acquire standard pronunciation, which became a marker of position in society.

Southern English Pronunciation is also known as *Received English Pronunciation* – RP (this term was introduced by D. Jones), Public School Pronunciation, or Standard English Pronunciation.

The British Broadcasting Corporation (BBC) adopted RP for its announcers and news readers on series of national and international BBC channels. RP is the form of pronunciation which is widely understood and described in textbooks on the phonetics of British English. It is traditionally used for teaching foreign learners.

The majority of dictionaries in Great Britain represent Received Pronunciation but it would be wrong to think that RP is used by the entire population of Britain. RP speakers form a very small part of the British population (only about 3–5 %).

Northern English is the speech of people who were born and brought up in the region between Birmingham and the border of Scotland. This variant cannot be sharply separated from the South English type, because it contains some features of the latter, modified by the local speech habits. But it has certain distinctive feature, such as the use of vowels other than in RP in the same words:

- [a] for RP [æ] in words like *bad* [bad], *man* [man];
- [æ] for [ɑ:] in words like *glass* [glæs], *ask* [æsk];
- [ʊ] for [ʌ] in words like *cup* [kʊp], *love* [lʊv];
- [e] for [ei] in words like *take* [tek], *may* [me].

Northern English represents the earlier type of London English that was the standard speech in the 16th, 17th and early 18th centuries. It was

carried to America. That is why there are many features in common between American and Northern English types of pronunciation.

Some features of Standard Scottish Pronunciation go back to the dialect of the Anglo-Saxon tongue. It differs from RP both in the inventory of phonemes and in the distribution of the phonemes common to both types. The most important differences are as follows:

– [æ] is used instead of [ɑ] – *glass* [glæs], *ask* [æsk];

– [a] is used instead of [æ] – *bad* [bad], *man* [man];

– monophthongs followed by [r] are pronounced instead of diphthongs – *here* [hır], *sure* [ʃu:r], *poor* [pu:r], *there* [ðe:r];

– the cluster [hw] is used in words with the initial digraph *hw* – *which* [whɪʧ];

– rolled [r] (of the Russian type) is used instead of constrictive RP [r] in all positions – *born* [born], *more* [mor].

Scottish intonation also differs considerably from RP intonation.

8.4. Regional Types of Pronunciation in the USA

In the United States there may be distinguished three main types of pronunciation: (1) the General American type (GA), (2) the Eastern type, (3) the Southern type.

General American is the most widespread type of educated American speech. Besides, it is the least regional in character like RP in Great Britain. It is also used by the radio and television, in scientific, cultural and business

discourse. This type of pronunciation is also known as Northern American or Western American. It is spoken in the central American States.

The Eastern type is spoken along the east coast on New England and largely in New York City. This type resembles the Southern English variant. It is explained by the fact that New England and Britain were in close contact during the colonization of America. But there are some slight differences between the Eastern American type and RP.

The Southern type is used in the south and south-east of the United States. Its most striking distinctive feature is a specific way of pronouncing vowels, consisting in the diphthongization and even triphthongization of some simple vowels and monophthongization of some diphthongs at the expense of prolonging their nuclei and dropping the glides (*that* may be pronounced as [ðæıət], *fine* may be pronounced as [fɑ:n]).

8.5. The Main Points of Difference between RP and GA

Since RP and GA are the most widely accepted types of pronunciation the learners of English should know the principal differences between them.

Within the consonant system.

1. The sound [r] is one of the most characteristic of GA pronunciation. In its articulation the tip and the blade of the tongue occupy a retroflex position (they are turned upwards, towards the hard palate). Its pronunciation is accompanied by some slight protrusion of the lips. RP [r] is a cacuminal sonorant, GA [r] is a retroflex sonorant. GA [r] is pronounced

not only initially but also before a consonant and in the word final position: *form* [fɔːrm], *bird* [bɜːrd], *sister* ['sɪstər]. In RP [r] never occurs between a vowel and a consonant or between a vowel and silence.

2. The phoneme [l] exists in GA only in the form of its dark variant [ɬ] and occurs both before vowels and [j] (in which positions clear variants are used in RP) and after a vowel or between a vowel and a consonant (as in RP):

GA: *look* [ɬʊk], till [tɪɬ]

RP: *look* [lʊk], *till* [tɪɬ].

3. The phoneme [t] in GA is extremely short and voiced. It is intermediate in character between a brief [d] and one-tap alveolar [r]. It can be represented by the phonetic symbol [ţ]. It occurs between a strongly stressed vowel and a weakly stressed one or a sonorant:

GA: *city* ['sɪţɪ], *better* ['bɛţə]

RP: *city* ['sɪtɪ], *better* ['betə].

4. When orthographic *nt* occurs in a similar positions the sound [ţ] is so brief that the impression is that it is omitted: *plenty* ['płɛn(t)ɪ].

5. Some Americans use the glottal stop [ʔ] instead of [t] before [m, n, r, l, j, w]: *certainly* ['sɜːʔnɬɪ], *that one* [ðæʔ wən].

6. In GA the optional phoneme [ʍ] (voiceless [w]) or the cluster [hw] are used in words with the initial digraph *wh*:

GA: witch [ʍɪʧ] [whɪʧ]

RP: witch [wɪʧ].

7. The phoneme [j] is usually weakened or omitted altogether in GA between a consonant and [u:] as in the word *news* [nuːz].

Within the vowel system.

1. The GA vowel [ɪ] is a little more open than RP vowel phoneme [ɪ].

2. The GA vowel [e] is a lower front vowel, it almost coincides with [æ].

3. The GA [æ] is longer than in RP and its distribution is different. In GA [æ] is used, in addition to words in which RP uses [æ], also in place of the RP vowel [ɑ:] in most words in which the latter is spelt by the letter *a* followed by a consonant letter other than *r*:

GA: *glass* [głæ·s], *last* [łæ·st]

RP: *glass* [glɑːs], *last* [lɑːst].

The exception is the stressed vowel in *father* [ɑː].

4. The GA counterpart of the RP vowel [ɒ] is its unrounded variety [ɑ] (similar to the RP [ɑ:], but short and checked):

GA: *box* [bɑks], *clock* [kłɑk]

RP: *box* [bɒks], *clock* [klɒk].

5. The phoneme [ʌ] in GA is pronounced as the central vowel [ə] but stressed. Other linguists say that GA [ʌ] is a little closer than the RP vowel [ʌ].

6. There is no strict division of vowels into long and short in GA.

Within the accentual structure.

1. In words of French origin GA tends to have stress on the final syllable, while RP has it on the initial:

GA: *beret* [be'reɪ], *ballet* [bæ'leɪ]

RP: *beret* ['bereɪ], *ballet* ['bæleɪ].

2. Some words have first-syllable stress in GA whereas in RP the stress may be elsewhere:

GA: *address* ['ædres], *magazine* ['mægəzın]

RP: *address* [ə'dres], *magazine* [ˌmægə'ziːn].

3. Polysyllabic words ending in *-ory, -ary, -ery, -ative, -mony* have secondary stress in GA, often called "tertiary": *dictionary* ['dıkʃəˌnərı], *secretary* ['sekrəˌtərı].

Within the intonational system.

American English intonation in comparison with British English intonation is unemphatic, or emotionally neutral speech. In sentences where the most common pre-nuclear contour in RP is gradually descending, in GA it is mid-level. The unstressed syllables in GA fall to a lower pitch, in RP unstressed syllables gradually descend. GA intonation produces an impression of level or monotonous melody.

The GA general questions take a falling tone whereas in RP they are pronounced with the rising tone. The rising tone in GA general questions is used to show politeness.

The monotony of GA intonation is explained by the following factors:

- pitch characteristics;
- narrow range of the utterance;
- slow tempo;
- more complicated than RP rhythmical structure of intonation.

8.6. Styles of Pronunciation

The pronunciation of one and the same person may be different on different occasions, for instance, when delivering a lecture, speaking on the

radio, when talking to officials or chatting with close friends. These differences concern not only the choice of words, but also the way we pronounce and join them.

These different ways of pronouncing words and joining them in the flow of speech are called *styles of pronunciation*. There is no generally accepted classification of styles of pronunciation. D. Jones classifies them in the following manner:

- the rapid familiar style;
- the slower colloquial style;
- the natural style used in addressing a fair-sized audience;
- the acquired style of the stage;
- acquired style used in singing.

The distinctive principle according to professor L.V. Shcherba is the degree of carefulness with which words are pronounced. He differentiates *the full style* from *the colloquial style*.

The full style is characterized by a moderately slow tempo and a careful pronunciation. the words are pronounced in their full form, without vowel reduction or loss of consonants and without unnecessary assimilation.

The colloquial style differs from the full style both in tempo and in clearness. It is useful to distinguish two main types of colloquial style: *the careful colloquial style* (which may have subdivision in tempo) and *the careless colloquial style* (which differs from the careful colloquial style in the free use of non-obligatory assimilations).

The knowledge of these differences is of great importance in mastering a foreign language. During the first stage of learning the teacher should draw the attention of the learners to the peculiarities typical for the careful or full style of speech. At the advanced stage of learning the other types of stylistic changes should be also introduced to enable the learners to understand rapid colloquial style.

8.7. The Choice of the Teaching Norm

The first objective criterion for the choice of the teaching norm is the degree of the understandability of this or that type of pronunciation in all the English-speaking countries.

The second important objective criterion is the extent to which this or that type has been investigated and the number of textbooks in which it is described and illustrated, as well as the amount of available audio-visual aids indispensable to teaching the chosen norm.

For these reasons the prevailing teaching norm is RP. No other type has been thoroughly investigated in all of its components as RP.

Questions:

1. In what countries is English spoken as the native language?
2. What is orthoepic norm?
3. What is the national variant of the language?
4. What are the regional types of pronunciation in Great Britain?
5. What are the regional types of pronunciation in the United States?

6. What are the main differences between RP and GA?
7. What are the styles of pronunciation?

Give definitions of the following phonetic terms: dialect, national language, orthoepic norm, Received Pronunciation, styles of pronunciation.

Exercises:

1. Read the following words according to the GA standard: *farm, bird, sister, leave, let, berry, merry, very, Betty, bottle, little, city, certainly, that one, mountain, which, what, when, due, tune, excursion, version, man, name, national, noun*.

2. Read the following words with the GA [æ] more front and longer than the RP [æ]: *ask, dance, last, answer, half, aunt*.

3. Read the words according to the GA standard: *hurry, current, worry, courage, furrow; winter, doctor, mister, sister, perceiver; not, crop, dock, nod, father, palm balm, calm*.

4. Read the GA general questions with a falling tone: *Are you going? Does he care? Shall we stay here?*

5. Say how the following sentences would sound in different styles of pronunciation (the full, the careless colloquial, the careful colloquial styles). Transcribe the three variants of each sentence: 1) *This year I am going to visit Great Britain*. 2) *I am sorry that you should think so*.

GLOSSARY OF PHONETIC TERMS

PHONETICS AS A BRANCH OF LINGUISTICS

Acoustic phonetics – a branch of phonetics which deals with physical properties of speech sounds.

Articulatory phonetics is concerned with the description and classification of speech sounds articulated by the speech apparatus.

Comparative phonetics – a branch of phonetics which studies the correlation between the phonetic systems of two or more languages.

Descriptive phonetics studies the contemporary phonetic system of a language, i.e. the system of its pronunciation, and gives a description of all the phonetic units of this language.

General phonetics is concerned with the analysis, description, and comparison of phonetic phenomena in different languages.

Historical phonetics – a branch of phonetics, which studies phonetic components on the diachronic level; it is a part of the history of language, which studies the history of the development of the phonetic laws.

Phonetics – the science that studies the sound matter of the language, its semantic functions and the lines of development.

Phonology – the science that deals with phonemes and their sequences. It is functional phonetics since it investigates the functional side of phonemes, accent, syllable, and intonation.

Phonosemantics investigates the connection between the sound form and the meaning.

Phonostylistics studies the phonetic phenomena from the stylistic point of view.

Practical phonetics studies the substance, the material form of phonetic phenomena in relation to meaning.

Segmental phonetics deals with individual sounds, i.e. segments of speech.

Supra-segmental phonetics is concerned with the larger units of connected speech, i.e. syllables, words, phrases, texts.

Theoretical phonetics is mainly concerned with the functioning of phonetic units in the language.

Affricates are consonants in the production of which the speech organs form a complete obstruction which is then realized so slowly that considerable friction occurs at the point of articulation.

Alveolar consonants are articulated by the tip of the tongue against the alveolar ridge.

Apical consonants are articulated by the tip of the tongue against either the upper teeth or the alveolar ridge.

Articulation – coordinated movements of speech organs in the process of speech.

Back vowels are produced with the bulk of the tongue in the back part of the mouth while the back of the tongue is raised in the direction of the soft palate, forming an empty space in the front part of the mouth.

Back-advanced vowels are produced with the bulk of the tongue in the back part of the mouth, but somewhat advanced while the back part of the tongue is raised in the direction of the front part of the soft palate.

Backlingual consonants are articulated by the back of the tongue against the soft palate.

Bilabial consonants are articulated by the two lips.

Cacuminal consonants are articulated by the tongue tip raised against the back part of the alveolar ridge.

Central vowels are those in which the central part of the tongue is raised towards the juncture between the hard and soft palate.

Checked vowels are those which are pronounced without any lessening the force of utterance towards their end. They have, therefore, a strong end. They end abruptly and are interrupted by the consonant immediately following. Therefore, they can only occur in a close syllable.

Close (high) vowels are those which are produced when one of the parts of the tongue comes close to the roof of the mouth and the air-passage is narrowed, but not so much as to form a consonant.

Complete obstruction is formed when two organs of speech come in contact with each other and the air-passage through the mouth is blocked.

Consonant is a sound produced with an obstruction (complete or incomplete) to the air stream. The organs of speech are tense at the place of obstruction. In the articulation of voiceless consonants the air stream is strong, while in voiced consonants it is weak.

Constrictive consonants are produced with an incomplete obstruction, that is by a narrowing of the air-passage.

Dental consonants are articulated against the upper teeth with the tip, or with the blade of the tongue.

Diphthong – a complex sound consisting of two vowel elements pronounced so as to form a single syllable. In its pronunciation the organs of speech start in the position of one vowel and glide gradually in the direction of another vowel, whose full formation is generally not accomplished. The first element of an English diphthong is called ***the nucleus***, it is strong, clear and distinct; the second element is rather weak, it is called ***the glide***.

Diphthongoids – vowels in the articulation of which the organs of speech change their position but very slightly.

Forelingual consonants are articulated by the blade of the tongue, the blade with the tip or by the tip against the upper teeth or the alveolar ridge.

Front vowels are produced with the bulk of the tongue in the front part of the mouth while the front of the tongue is raised in the direction of the hard palate, forming a large empty space in the back part of the mouth.

Front-retracted vowels are produced with the bulk of the tongue in the front part of the mouth but somewhat retracted, while the front of the tongue is raised in the direction of the hard palate.

Incomplete obstruction is formed when an articulating organ is held so close to a point of articulation as to narrow or constrict the air-passage without blocking it.

Labio-dental consonants are articulated with the lower lip against the upper teeth.

Lateral sonorants are those in the production of which the tongue is pressed against the alveolar ridge or the teeth, and the sides of the tongue are lowered, leaving the air-passage open along them.

Lax vowels are those which are produced with lesser tenseness of the speech organs.

Median sonorants are those in the production of which the air escapes without audible friction over the central part of the tongue, the sides of the tongue being raised.

Mediolingual consonants are articulated with the middle part of the tongue against the hard palate.

Mid-open (mid) vowels are those which are produced w the raised part of the tongue is half-way between its high and low positions.

Monophthong – a pure (unchanging) vowel sound. In its pronunciation the organs of speech do not perceptibly change their position throughout the duration of the vowel.

Nasal consonants are produced with the soft palate lowered while the air-passage through the mouth is blocked. As a result, the air escapes through the nasal cavity.

Noise consonants are those in the production of which noise prevails over tone.

Occlusive consonants are produced with a complete obstruction formed by the articulating organs; the air-passage in the mouth cavity is blocked.

Open (low) vowels are those which are produced when the raised part of the tongue is very low in the mouth, and the air-passage is very wide.

Oral consonants are produced when the soft palate is raised and the air escapes through the mouth.

Organs of speech are divided into movable and fixed. The movable speech organs take an active part in the articulation of speech sounds and are called *active organs of speech*. The fixed speech organs with which the active organs form obstruction are called *passive organs of speech*. They serve as points of articulation. The organs of speech together with biological functions, such as breathing, feeding, smelling and tasting serve to carry out intercommunication through the elaborate work of the four mechanisms: the power, the vibrator, the resonator, the obstructor.

Palato-alveolar consonants are articulated by the tip and blade of the tongue against the alveolar ridge or the back part of the alveolar ridge, while the front of the tongue is raised in the direction of the hard palate.

Plosive consonants (stops) are those in the production of which the speech organs form a complete obstruction which is then quickly realized with plosion.

Post-alveolar consonants are articulated by the tip of the tongue against the back part of the alveolar ridge.

Rounded vowels are produced when the lips are more or less rounded and slightly protruded.

Sonorants – the sounds in the production of which voice prevails over noise.

Sound – a material unit, produced by speech organs. A sound can be viewed from the articulatory, acoustic, auditory and functional points of view.

Tense vowels are produced when the organs of speech are tense.

Unchecked vowels are those which are pronounced with lessening the force of utterance towards their end. Therefore, they have a weak end.

Unrounded vowels are produced when the lips are spread or neutral.

Vowel – is a voiced sound produced in the mouth with no obstruction to the air stream. The air stream is weak. The tongue and the vocal cords are tense; the muscular tension is distributed more or less evenly throughout the mouth cavity and the pharynx.

THE PHONOLOGICAL ASPECT OF SPEECH SOUNDS

Allophones – variants of one and the same phoneme, which never occur in identical positions, but are said to be in complementary distribution, they are actual speech sounds.

Allophonic transcription – a type of transcription which is based on the principle "one symbol per allophone". This transcription provides a special sign for each variant of each phoneme. A phoneme is reflected in this transcription as a unity of all its allophones. The symbols of an allophonic transcription are usually placed between square brackets [ ].

Combinatory allophones – variants of a phoneme which appear in speech as a result of assimilation and adaptation or of the specific ways of joining sounds together.

Commutation method – one of the basic methods of phonemic investigation, which consists in the discovery of minimal pairs.

Distributional analysis – a method that helps to establish the distribution of speech sounds, i.e. all the positions or combinations in which each speech sound of a given language occurs (or does not occur) in the words of the language.

Method of minimal pairs – the discovery of as many pairs of words as possible, that differ in one phoneme. It is based on the substitution of one sound for another, commutation.

Method of distinctive oppositions enables to prove whether the phonetic difference is relevant or not.

Phoneme – the shortest functional unit of a language. Each phoneme exists in speech in the form of mutually non-distinctive speech sounds, its allophones. Each speech sound is an allophone of some phoneme.

Phonemic transcription – a type of transcription which is based on the principle “one symbol per phoneme”. A phoneme is reflected in this transcription as an abstraction and generalization. The symbols of a phonemic transcription are placed within two slanting lines / /.

Phonology – the science that deals with phonemes and their sequences. It is functional phonetics since it investigates the functional side of phonemes, accent, syllable, and intonation.

Positional allophones – variants of a phoneme which are used in definite positions due to the tradition of a language pronunciation, e.g. dark and light /l/.

Principal allophone – that variant of a phoneme which is considered to be free from the influence of the neighbouring sounds.

Statistical method – a method which helps to establish frequency, probability and predictability of occurrence of phonemes and their allophones in different positions.

Subsidiary allophones – variants of phonemes that appear under the influence of the neighbouring phonemes with which they are in complementary distribution. They are subdivided into combinatory and positional.

Substitution method – the method of replacing of one speech sound by another in the same position to see whether it results in a minimal pair, e.g. *pen, ten, den*.

Transcription – the system of signs in which sounds are symbolized. Transcription represents sounding speech.

MODIFICATION OF PHONEMES IN CONNECTED SPEECH

Accommodation – adaptation of vowels to different adjacent sounds.

Assimilation – a modification of a consonant under the influence of a neighbouring consonant. It is the result of coarticulation, when one sound is made similar to its neighbour.

Close transition – articulation of two neighbouring sounds when the first stage of the second sound takes place already during the medial stage of the first sound.

Complete assimilation – when the articulation of the assimilated consonant fully coincides with that of the assimilating one.

In ***contextual assimilation*** a word comes to have a pronunciation different from that which it has when said by itself.

Elision – the process when one of the neighbouring sounds is not realized in rapid or careless speech (complete loss of sounds, both vowels and consonants. It is likely to be minimal in slow careful speech and maximal in rapid relaxed colloquial forms of speech).

Historical assimilation – assimilation which took place at an earlier stage in the history of the language (sound changes which are the result of the historical development of the language).

Intermediate assimilation – the process when the assimilated consonant changes into a different sound, but does not coincide with the articulating consonant.

Living assimilation – assimilation which occurs in everyday speech in the present day pronunciation.

Loose transition – articulation of two neighbouring sounds when the final stage of the first sound is not affected by the initial stage of the second sound.

Non-obligatory assimilation – appears in careless and slovenly speech.

Obligatory assimilation – occurs in the speech of all persons who speak a certain language no matter what style of speech is used.

Partial (incomplete) assimilation – the process when the assimilated consonant retains its main phonemic features and becomes only partly similar in some feature of its articulation to the assimilating sound.

Progressive assimilation – the process when the first of the two neighbouring sounds influences the second and makes it similar to itself.

Reduction – actually qualitative or quantitative weakening of vowels in unstressed position (a historical process of weakening, shortening or disappearance of vowel sounds in unstressed positions).

Regressive assimilation – the process when the second of the two neighbouring sounds influences the first one and makes it similar to itself.

Reciprocal (double) assimilation takes place when the neighbouring sounds are equally affected by assimilation (when the two adjacent sounds influence each other).

Syllable

Syllable – the shortest segment of speech continuum. It is one or more speech sounds, forming a single uninterrupted unit of utterance, which may be a word, or a commonly recognized and separable subdivision of the word (J. Kenyon).

Syllable pattern – the type of syllable most common for the language.

Syllabic – capable of forming a syllable.

Syllabic sounds – sounds that can form the peaks of prominence.

WORD STRESS

Dynamic stress – force stress based mainly on the expiratory effort.

Fixed stress – this type of stress which is characterized by the fixed position.

Free word-stress – the type of stress which is characterized by the free accidence of the word stress.

Primary stress – the stress which is the strongest compared with the other stresses used in a word.

Secondary stress – this type of stress which appears in words of five or more syllables. It falls on the second pretonic syllable.

Word stress – a singling out of one or more syllables in a word by giving them a greater degree of prominence as compared with the other syllable or syllables in the same word.

Intonation

Ascending scale – gradual rising of the voice pitch.

Descending scale – gradual lowering of the voice pitch.

Head – stressed syllables preceding the nucleus together with the intervening unstressed syllables.

Intonation is a component of the phonetic structure which is viewed in the narrow meaning as pitch variations, or speech melody.

Intonation group is an actualized sense group (syntagm).

Melody – changes in the voice pitch in the process of speech.

Nucleus of an intonation group – the last stressed syllable of a sense group.

Pause – a short period of time when sound stops before starting again.

Pre-head – unstressed and half-stressed syllables preceding the head.

Rhythm – the regular alternation of stressed and unstressed syllables.

Scale (head) – the arrangement of stressed and unstressed syllables of a syntactic whole.

Sentence stress – the greater degree of prominence given to certain words in a sentence.

Speech melody – variations in the pitch of the voice in connected speech.

Staves – two parallel lines for intonation recording (by means of special symbols).

S*yntagm* is a group of words which is semantically and syntactically complete.

Tempo of speech – the rate of utterance.

Tail - unstressed or partly stressed syllables that follow the nucleus of the intonation group.

Timbre – the quality of a musical sound, depending on what overtones are present and their respective amplitudes.

Terminal tone – a change of pitch at the junction of two sense-groups.

Tonogram – graphic representation of intonation.

Varieties of English Pronunciation

Dialect – a form of a language that is spoken in a particular area.

National language – a language of a nation and its literature.

Orthoepic norm – the correct pronunciation of the words of a language.

Received Pronunciation – the type of standard pronunciation most commonly described in books on the phonetics of British English and traditionally taught to foreigners.

Styles of pronunciation – different ways of pronouncing words and joining them in the flow of speech.

PHONETIC VOCABULARY

A

accent ['æksənt] ударение, акцент
accommodation [əˌkɒmə'deɪʃn] аккомодация, приспособление
acoustic [ə'kuːstɪk] акустический, звуковой
adjacent [ə'ʤeɪsnt] смежный, соседний
affricate ['æfrɪkət] аффриката
air-passage проход для воздуха
air-stream поток воздуха
allophone [ˈæləfəʊn] аллофон
alternation [ˌɔːltə'neɪʃn] чередование
alveolar [ˌælvɪ'əʊlə] альвеолярный
alveolar ridge альвеолярный отросток
analysis [ə'næləsɪs] анализ, изучение, исследование
apical ['æpɪkl] апикальный
articulate [ɑːˈtɪkjuleɪt] артикулировать
articulation [ɑːˌtɪkju'leɪʃn] артикуляция
articulatory [ɑːˈtɪkjuleɪtəri] артикуляционный
ascending scale [ə'sendɪŋ] восходящая шкала
aspiration [ˌæspə'reɪʃn] аспирация, придыхание
assimilate [ə'sɪməleɪt] ассимилировать, уподоблять
assimilation [əˌsɪmə'leɪʃn] ассимиляция, уподобление
audible ['ɔːdəbl] слышимый (о шуме)
auditory ['ɔːdətrɪ] слуховой

B

back-advanced vowel [əd'vɑːnst] гласный задне-продвинутого вперед ряда
backlingual ['bæk'lɪŋgwəl] заднеязычный
back of the tongue задняя часть языка
back vowel ['bæk 'vaʊəl] гласный заднего ряда
bilabial [ˌbaɪ'leɪbiəl] билабиальный, губно-губный, двугубный
blade [bleɪd] передняя часть языка
bronchi ['brɒŋkaɪ] бронхи
bulk of the tongue ['bʌlk əv ðə 'tʌŋ] масса языка

C

cacuminal [kæ'kjuːmɪnəl] какуминальный
central vowel ['sentrəl] гласный среднего ряда
checked [ʧekt] усеченный (гласный)
clause [klɔːz] предложение (часть сложного предложения)
close vowel закрытый гласный, гласный высокого подъема части языка
closed syllable закрытый слог
closure ['kləʊʒə] смыкание
cluster ['klʌstə] скопление, сочетание согласных звуков
colloquial [kə'ləʊkwiəl] разговорный
communicative centre коммуникативный центр
comparative [kəm'pærətɪv] сравнительный
complete assimilation [kəm'pliːt] полная ассимиляция
compound ['kɒmpaʊnd] составной сложный; сложное слово

consonant ['kɒnsənənt] согласный
constitutive function [kən'stɪtjutɪv] конститутивная, словоформирующая, словообразовательная функция
constrictive [kən'strɪktɪv] щелевой
contextual assimilation [kən'tekstʃuəl] контекстуальная ассимиляция
correlation [ˌkɒrə'leɪʃn] взаимосвязь, взаимоотношение
covered syllable прикрытый слог

D
define [dɪ'faɪn] определять, давать определение
definition [ˌdefɪ'nɪʃən] определение
dental ['dentl] дентальный, зубной
derivative [dɪ'rɪvətɪv] производное слово
descending scale [dɪ'sendɪŋ] нисходящая шкала
devoice [ˌdi:'vɔɪs] оглушать
devoiced [ˌdi:'vɔɪst] оглушенный
dialect ['daɪəlekt] диалект
diaphragm ['daɪəfræm] диафрагма
digraph ['daɪgrɑ:f] диграф
diphthong ['dɪfθɒŋ] дифтонг
diphthongoid дифтонгоид
direct observation прямое наблюдение
distinctive feature [dɪ'stɪŋktɪv] смыслоразличительный, дистинктивный признак
distinctive function различительная функция
distribution [ˌdɪstrɪ'bju:ʃn] дистрибуция, распределение

disyllabic [ˌdaɪsɪ'læbɪk, ˌdɪ-] двусложный
dorsal ['dɔːsl] дорсальный
double opposition двойная оппозиция
duration [dju'reɪʃn] длительность, продолжительность
dynamic stress [daɪ'næmɪk] динамическое (силовое) ударение

E
elision [ɪ'lɪʒn] элизия, выпадение (звука)
emphatic [ɪm'fætɪk] эмфатический, выразительный
enclitic [ɪn'klɪtɪk] энклитика, энклитический
exhalation [ˌekshə'leɪʃn] выдыхание, выдох
expiratory [ɪk'spɪrətərɪ] экспираторный, выдыхательный

F
falling ['fɔːlɪŋ] нисходящий (о тоне)
fall-rise нисходяще-восходящий тон
fixed stress [fɪkst] фиксированное ударение
forelingual ['fɔː'lɪŋgwəl] переднеязычный
form-word служебное слово
fortis [´fɔːtɪs] сильный
free stress свободное ударение
free variation свободная вариация
frequency ['friːkwənsɪ] частота
fricative ['frɪkətɪv] фрикативный
friction ['frɪkʃn] шум трения
front-retracted vowel [rɪ'træktɪd] гласный передне-отодвинутого назад ряда

front vowel ['frʌnt 'vaʊəl] гласный переднего ряда
full style полный стиль

G
glide [glaɪd] скольжение, призвук
glottal ['glɒtl] гортанный
glottal stop ['glɒtl 'stɒp] гортанный взрывной звук
glottis ['glɒtɪs] голосовая щель

H
hard palate ['hɑːd 'pælɪt] твердое нёбо
head первый ударный слог
high vowel ['haɪ 'vaʊəl] гласный высокого подъема
historical assimilation историческая ассимиляция
homograph ['hɒməgrɑːf] омограф
homonym ['hɒmənɪm] омоним
homonymous [hə'mɒnɪməs] омонимический, омонимичный

I
initial [ɪ'nɪʃl] начальный
intensify [ɪn'tensɪfaɪ] усиливать
intensity [ɪn'tensətɪ] интенсивность, сила, мощность
interdental [ˌɪntə'dentl] межзубный
intermediate assimilation [ˌɪntə'miːdiət] промежуточная ассимиляция
interpenetration ['ɪntə ˌpenɪ'treɪʃn] взаимопроникновение
intervocalic [ˌɪntəvəʊ'kælɪk] интервокальный (находящийся между гласными)

intonation [ˌɪntə'neɪʃn] интонация
intonation group [ˌɪntə'neɪʃn 'gru:p] интонационная группа

J
jaw [ʤɔ:] челюсть
junction ['ʤʌŋkʃn] стык (о словах), соединение (о звуках речи)
juncture ['ʤʌŋkʧə] стык

L
labial ['leɪbiəl] губной
labiodental [ˌleɪbiə'dentl] губно-зубной, лабио-дентальный
larynx ['lærɪŋks] гортань
lateral ['lætərəl] боковой
lax [læks] ненапряженный
length [leŋθ] долгота
lenis ['li:nɪs] слабый
level tone ровный тон
lexicology [ˌleksɪ'kɒləʤɪ] лексикология
lingual ['lɪŋgwəl] языковой, язычный
logical stress ['lɒʤɪkl] логическое ударение
long vowel долгий гласный
loudness ['laʊdnəs] громкость
low fall низкий нисходящий тон
low rise низкий восходящий тон
low vowel ['ləʊ 'vaʊəl] гласный низкого подъема
lung [lʌŋ] легкое

M

median ['mi:diən] серединный, занимающий срединное положение
mediolingual ['mi:djə 'liŋgwəl] среднеязычный
merging [´mɜ:dʒɪŋ] слияние (о фазах артикуляции звука)
mid-open vowel ['mɪdəʊpən 'vaʊəl] гласный среднего подъема
minimal pairs минимальные пары
monophthong ['mɒnəfθɒŋ] монофтонг
monosyllabic [ˌmɒnəsɪ'læbɪk]
односложный
morpheme ['mɔ:fi:m] морфема
morphology [mɔ:'fɒlədʒɪ] морфология
mouth cavity ротовая полость
movable ['mu:vəbl] подвижный
movement ['mu:vmənt] движение
multiple opposition ['mʌltɪpl] множественная оппозиция
muscular ['mʌskjələ¸ 'mʌskjulə] мускульный
muscular tension мускульное напряжение
musical stress ['mju:zɪkl] музыкальное (тональное) ударение

N

narrowing ['nærəʊɪŋ] сужение, щель
nasal ['neɪzl] носовой, назальный
nasal cavity носовая полость
nasal consonant носовой согласный
nasal plosion носовой взрыв
noise consonant шумный согласный

non-distinctive недистинктивный (признак звука)
non-obligatory assimilation необязательная ассимиляция
nuclear tone ['nju:kliə] ядерный тон
nucleus ['nju:kliəs] ядро; слог, несущий главное ударение

O

obligatory assimilation [ə'blɪgətrɪ] обязательная ассимиляция
observation [ˌɒbzə'veɪʃn] наблюдение
obstruction [əb'strʌkʃn] преграда, барьер
occlusive [ə'klu:siv] смычный
off-glide рекурсия, конечная фаза (о звуке)
on-glide экскурсия, начальная фаза (о звуке)
onomatopoeia [ˌɒnəˌmætə'pi:ə] ономатопея, звукоподражание
open syllable открытый слог
open vowel открытый гласный, гласный низкого подъема части языка
opposition [ˌɔpə'zɪʃn] оппозиция
oral consonant ['ɔ:rəl] ротовой согласный
orthography [ɔ:'θɒgrəfɪ] орфография, правописание

P

palatal ['pælətl] нёбный, палатальный
palatalization [ˌpælətəlaɪ'zeɪʃn] палатализация, смягчение
palate ['pælət] нёбо
palato-alveolar нёбно-альвеолярный
partial assimilation ['pɑ:ʃl] частичная ассимиляция

pause [pɔːz] пауза
perception [pə'sepʃn] восприятие
pharynx ['færɪŋks] глотка, зев
phonation [fəˈneɪʃn] голосообразование, фонация
phoneme ['fəʊniːm] фонема
phonemic [fə'niːmɪk] фонематический
phonetic [fə'netɪk] фонетический
phonetics [fə'netɪks] фонетика
phonological [ˌfəʊnə'lɒʤɪkl)] фонологический
phonology [fə'nɒləʤɪ] фонология
pitch [pɪʧ] высота (тона, звука)
pitch level уровень высоты тона
pitch range диапазон высоты тона голоса
plosion ['pləʊʒn] взрыв
plosive consonant ['pləʊsɪv] взрывной согласный
point of articulation место артикуляции
polysyllabic [ˌpɒlɪsɪ'læbɪk] многосложный
positional [pə'zɪʃənəl] позиционный
post alveolar заальвеолярный
prefix ['priːfɪks] префикс, приставка
pre-head начальные безударные слоги, предшествующие первому ударному слогу
primary stress ['praɪmərɪ] главное ударение
proclitic [prə'klɪtɪk] проклитический; проклитика
progressive assimilation прогрессивная ассимиляция
prominence ['prɒmɪnəns] усиление, подчеркивание

prominent ['prɒmɪnənt] усиленный, подчеркнутый. выделяющийся
pronounce [prə'naʊns] произносить
pronunciation [prəˌnʌnsɪ'eɪʃn] произношение
prosody ['prɒsədɪ] просодия, интонация
protruded [prə'truːdɪd] вытянутые вперед (о губах)

Q
qualitative ['kwɒlɪtətɪv] качественный
quantitative ['kwɒntɪtətɪv] количественный

R
range [reɪnʤ] диапазон
rate [reɪt] скорость
recessive tendency [rɪ'sesɪv] рецессивная тенденция (словесного ударения)
reciprocal assimilation [rɪ'sɪprəkl] взаимная ассимиляция
reduced [rɪ'djuːst] редуцированный
reduction [rɪ'dʌkʃn] редукция, ослабление
regressive assimilation [rɪ'gresɪv əˌsɪmə'leɪʃn] регрессивная ассимиляция
release [rɪ'liːs] размыкать, устранять преграду
resonator ['rezəneɪtə] резонатор
retention stage [rɪ'tenʃn] выдержка, вторая фаза (о звуке)
retentive tendency [rɪ'tentɪv] ретентивная тенденция (словесного ударения)
retroflex ['retrəfleks] загнутый назад, ретрофлексивный

rhythm ['rɪðəm] ритм
rhythmic group ['rɪðmɪk] ритмическая группа
rhythmical ['rɪðmɪkl] ритмический
rhythmical tendency ритмическая тенденция (словесного ударения)
rise-fall восходяще-нисходящий тон
rise-fall-rise восходяще-нисходяще-восходящий сложный тон
rising ['raɪzɪŋ] восходящий (о тоне)
root [ruːt] корень (слова)
round [raʊnd] округлять (о губах)
rounded ['raʊndɪd] лабиализованный (огубленный)
RP (Received pronunciation) [ɑː(r) piː] литературное английское произношение

S
scale [skeɪl] шкала (мелодическая)
secondary stress ['sekəndrɪ] второстепенное ударение
segmental [səg'mentl] сегментный
sense-group синтагма, смысловая группа
sentence stress фразовое ударение
shape [ʃeɪp] форма
shifting stress ['ʃɪftɪŋ] подвижное ударение
short vowel краткий гласный
single opposition одинарная оппозиция
soft palate ['sɒft 'pælɪt] мягкое нёбо
sonorant [səˈnɔːrənt] сонант
sonority [sə'nɒrətɪ] звонкость, звучность

sonorous ['sɒnərəs] сонорный, произносимый с участием голоса
sound [saʊnd] звук
sound interchange [ˌɪntə'ʧeɪnʤ] чередование звуков
speech [spi:ʧ] речь, речевая деятельность
speech melody мелодика речи
speech organ орган речи
speech sound звук речи
spelling ['spelɪŋ] орфография, правописание
spread [spred] растягивать (о губах)
staves [steɪvz] две параллельные линии для обозначения верхнего и нижнего пределов голосового диапазона
stem [stem] основа
stop [stɒp] взрывной согласный
stress [stres] ударение
stress mark знак ударения
stressed [strest] ударный
stylistics [stai'lıstıks] стилистика
subglottal находящийся ниже складок голосовой щели
subsidiary [səb'sıdiərı] второстепенный
supra-glottal надгортанный
suffix ['sʌfıks] суффикс
suprasegmental [ˌsu:prəseg'mentl] сверхсегментный
syllabic [sı'læbık] слоговой, слогообразующий
syllable ['sıləbl] слог
syllable division слогоделение
syllable formation слогообразование

syntactic [sɪn'tæktɪk] синтаксический
syntagm [ˈsɪntæm] синтагма

T
tail [teɪl] безударная часть терминального тона, следующая за ядром
tempo ['tempəʊ] темп
tense [tens] напряженный
tenseness ['tensnəs] напряженность
terminal tone ['tɜːmɪnl] терминальный тон, мелодическое завершение (синтагмы, предложение)
tertiary stress ['tɜːʃərɪ] третичное ударение
timbre ['tæmbə] тембр
tip of the tongue кончик языка
tone [təʊn] тон
tongue [tʌŋ] язык
trachea [trə'kiːə] трахея
transcription [træn'skrɪpʃn] транскрипция

U
unchecked [ʌn'ʧekt] неусеченный
uncovered syllable неприкрытый слог
unrounded [ʌn'raʊndɪd] нелабиализованный (неогубленный)
unstressed [ʌn'strest] безударный
upper lip ['ʌpə 'lip] верхняя губа

upper teeth ['ʌpə 'tiːθ] верхние зубы
utter ['ʌtə] издавать (о звуке), произносить
utterance ['ʌtərəns] высказывание
uvula ['juːvjələ] маленький язычок

V
variant ['veəriənt] вариант, оттенок
variation [ˌveərɪ'eɪʃn] разновидность
velar ['viːlə] велярный, задненёбный
velum ['viːləm] мягкое нёбо
vibrate [vaɪ'breɪt] вибрировать, колебаться
vibration [vaɪ'breɪʃn] вибрация, колебание
vocal cords ['vəʊkl 'kɔːdz] голосовые связки
vocal tract голосовой тракт
vocalism ['vəʊkəˌlɪzəm] вокализм, система гласных
voice [vɔɪs] голос, озвончать
voiced [vɔɪst] звонкий
voiceless ['vɔɪsləs] глухой
volume ['vɒljuːm] объем
vowel ['vaʊəl] гласный (звук)
vowel duration длительность гласного (позиционная)

W
weak stress слабое ударение
windpipe ['wɪndpaɪp] дыхательное горло
word stress ['wɜːdstres] словесное ударение

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