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Ahmedov Azimjon

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dots. S.O. Solijonov

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THEME: Suprasegmental units of phonetics

PLAN:

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Introduction.

I am Azimjon Ahmedov, a graduate from the Faculty of Foreign Languages, Department of the English Language and Literature, Andizhan State University named after Zahiriddin Muhammad Bobur. I am a citizen of my beloved country – Independent Uzbekistan, which is a real paradise for a human being just to be born in and enjoy living, studying and working for the further prosperity of the gifted, friendly and laborious multinational Uzbek people who are today equal among equals and continuing to make their worthy contribution to the development of the world civilization.

Our country is only 22 years old, but each year of this period, I think, may be compared to decades just too deeply estimate the ever high growth of my country in every walk of life: spirituality, economy, science, technique and culture, etc. In this connection the economy of the country deserves special mention, for unlike other countries', it has been developing as to the scientifically well-grounded model, well known throughout the world as the — Uzbek Model of Economic Development that has proved itself right by today, of which we are not only the witnesses, but also the participants and performers of this on-going national economic processes.

Special attentions were attached to the 5 main principles of the building of the sovereign state advanced by our President I.A.Karimov, which were recognized not only in our country, but also abroad.

These principles are the following:

- economy should be a priority task over politics;
- the state should act as the main reformer;
- leadership of law should be established in all spheres of life;
- strong social politics should be implemented in all spheres of life;
- transition to market economy should be evolutionary i.e. step by step

These 5 principles are at the basis of development of our state and branches of economy.

Only well-educated and professional person can be economically free and reliable proponents of the crucial economic transformation. Awarding this truth should lie in the bases of the whole development process of spiritual and cultural life of the people, in the renewal of the whole system of education.

—We should remember that only that country, that nation can advice great future, prosperity and well-being which would be able to train knowledgeable, professional and energetic persons, true patriots of their country, the country which would provide them with

huge spiritual legacy of the great national culture and give them access to the world treasure of science and culture.

There is possibility to radically reform the education system, to bring its contents, forms and 4 methods close to the real need of the society.

Educational establishment of a new type, such as professional colleges, academic lyceums, gymnasiums and business schools are intensively being created.

During the last year the most important documents aimed at creation of favourable condition to form a new highly educated generation and to support gifted children and the youth were adopted. Among these important documents are: the Laws of the Republic of Uzbekistan —On the National Program of Personnel training, —On Education, the Resolution of the Cabinet of Ministers —On the organization of general secondary education in the Republic of Uzbekistan. [5;89-91]

There are many opportunities in our country for language learning and teaching. One of the steps to improving English language teaching in secondary schools is the decree declared on December 10, 2012 by the President of Uzbekistan, **Islam Abduganievich Karimov**. He resolves to improve foreign language learning system with the decree about “On measures to improve further improve foreign language learning system”.

It is noted that in the framework of the Law of the Republic of Uzbekistan “On education and the National Programme for Training” in the country, a comprehensive foreign languages’ teaching system, aimed at creating harmoniously developed, highly educated, modern-thinking young generation, further integration of the country to the world community, has been created. During the years of independence, over 51.7 thousand teachers of foreign languages have graduated from universities, English, German and French multimedia tutorials and textbooks for 5-9 grades of secondary schools, electronic resources for learning English in primary schools have been created, more than 5000 secondary schools, professional colleges and academic lyceums were equipped with language laboratories.

However, the analysis of the current system of organizing language learning shows that learning standards, curricula and textbooks do not fully meet the current requirements, particularly in the use of advanced information and media technologies. Education is mainly conducted in the traditional methods. Further development of a continuum of foreign languages learning at all levels of education; improving skills of teachers and provision of modern teaching materials are required.

According to the decree, starting from 2013/2014 school year foreign languages, mainly English, gradually throughout the country will be taught from the first year of schooling in the

form of lesson-games and speaking games, continuing to learning the alphabet, reading and spelling in the second year (grade).

Also it is envisaged that university modules, especially in technical and international areas, will be offered in English and other foreign languages at higher education institutions.

The State Testing Centre, along with other relevant agencies, is tasked with preparing draft proposals on introducing foreign languages testing to the entrance examinations for all higher educational institutions.

In order to increase teaching standards in distant rural areas, the higher educational institutions are allowed targeted admission of people living in distant areas to foreign language programs on the condition that they will oblige themselves to work in the acquired specialty at their residence area for at least 5 years after graduation. The decree also envisages 30% salary increase for foreign language teachers in rural areas, 15% increase for those in other areas. [6;1-3]

The National Teleradio Company, State Committee for communications, information and telecommunication technologies, Agency for Press and Information of the Republic of Uzbekistan are tasked to prepare and broadcast language-learning programs, significantly increase access to international educational resources via “Ziyonet” educational network, promote publication of foreign language textbooks, magazines and other materials.

It is noteworthy that —the National Program of Personnel training‖ stimulates formation of many-sided individual, educated person through the system of continuous education, organically connected with intellectual, cultural and moral education of a citizen.

We clearly see that one of the main Constitutional guarantees – the right to receive education, realization of creativity, intellectual development – is realized through this program. The market of educational services is being formed through developing marketing in the sphere of education, and training qualified specialists, the system of governmental and non-governmental education establishments, paid consulting and educational services is being developed, market relating in the principles of self-financing, demand and supply.

In order to provide efficient work of educational establishments of a new type and their efficient functioning, the center of the special secondary professional education was formed as a part of the Ministry of Higher and Secondary Specialized Education of Uzbekistan.

Much work is performed in provisioning the branches of the national economy with educated specialists of various levels.

No less attention is paid to the problems of the development of scientific and research work because the state will not have its future without all sided elaboration of science. Taking this into

account much attention in our Republic is attached to expansion of research work, efficient application of scientific achievements in various spheres of the national economy.

In this connection assurance of an equal opportunity to general secondary education and to the free choice of occupation and adequate training is of crucial importance. We will have to face the need to develop a new democratic concept of education which integrates national, historical, intellectual, cultural, traditional and other experiences of the multinational Uzbek people living and creating wonders in the territory of the Republic which is today forming a cohesive system of upbringing and education and creating conditions for the development of all types of creative activities for discovering and cultivating talents and abilities and for the protection of intellectual prosperity.

Acquiring independence made it possible for Uzbekistan to boldly pursue an education meeting the interests of the republic and our talented hard working Uzbek people. The isolation from the outside world has ended and Uzbekistan has become an equal entity of international law, which enables it to win a decent place in international division of labour.

Nowadays English language is accepted as a language of communication all over the world and it is being paid great attention to in teaching foreign languages in our Uzbekistan. And the main sources of scientific and intellectual personnel are qualified specialists that graduate from universities and make their contribution to the development of the country by writing scientific research works, graduation qualification papers in various sciences and subjects, including linguistics and literature known together as —philology.

Philologists are involved in investigating urgent and actual problems of world modern philology. This is a new generation that helps the progress to move on in all of the spheres of the language study. Today a lot of new methodical recommendations, strategies and manuals are being designed on the basis of the results of their research works.

In order to be one of the best specialists in the market of education I've made up my mind to carry out my own tiny research work on a very interesting and not yet deeply investigated theme. I believe that the results to be achieved in this research will be very helpful in working out effective and useful strategies and methodologies for teaching English in the future.

Since independence our country has made much progress in every field. The Uzbek language became the state language of Uzbekistan on October 21 1989. National flag, emblem and anthem of the Republic of Uzbekistan were declared as the symbols of our motherland. They were made by our nation and truly reflect the main idea of Uzbek nation as peace, tolerance and origin. The future generation is the hope of any society and nation. The prosperous life of the country mostly depends on the intellect and aspirations of its youth.

Since the early days of independence, our government has been focusing on harmonic development of the young generation. Especially their physical, moral and spiritual upbringing has become one of the most important priorities of State policy. Our government is paying much attention to modernize education system to improve the quality of teaching and achieve highly educated young generation. The declaration of “The Constitution of the Republic of Uzbekistan” hopefully considered as maintenance of lifelong peace and right of the citizens. The rights and responsibilities of all citizens’ are reflected on it. It was a big turn and we still use it happily. Suggestion of “The Development of Uzbek Model” and its confirmation with great interest made a big role in the next development of our republic.

“Education is life or death” mentioned by the great scholar Abdulla Avloniy in XIX century. He was absolutely right and the history has already proved his consideration. Our president Islam Karimov pointed out the real importance of education in early days of our independence. His plan about improving the quality of spiritual life of people and teaching young generation was very practical and covered all spheres of our society.

In one of his speeches Islam Karimov pointed: “Education and upbringing, while being the product of consciousness, are the factors which define the level of consciousness and development. Without improving the system of education and upbringing one cannot alter the consciousness, and by not altering the consciousness, and consequently the mind, it would be impossible to achieve our highest goal-to build a free and prosperous society”. [5;20-21]

In 1997, under the leadership of the President of the Republic of Uzbekistan Islam Karimov, the National Program of Personnel Training was developed.

Reforms in the system of education in Uzbekistan and the large-scale programs which are aimed at the happy future of our children, are now giving their results.

My qualification paper is devoted to one of the actual themes of modern phonetics:
Suprasegmental units of phonetics

The actuality of the theme: Though the suprasegmental units have been more or less investigated in English, there has been many scientific research devoted to the study of suprasegmental features of phonetics in Modern English and to the effective methods of teaching in English.

The aim of the research: the analysis of suprasegmental units and methods of teaching in English at Uzbek schools.

In order to achieve the above mentioned aim we should carry out the following tasks:

1) to identify and justify the actuality of the chosen theme;

2) to make a qualitative and quantitative analysis of suprasegmental in Modern English.

3) to work out useful strategies and methodologies for teaching the suprasegmental units of phonetics in Modern English at Uzbek schools.

The object of the research: suprasegmental units which consists of word stress, syllable, intonation.

The subject matter of the research: to define all 3 aspects of suprasegmental unit

Materials for the research are the concrete examples which are used in speech.

Methods of the research are:

2) a detailed analysis of the whole suprasegmental units in Modern English .

3) useful strategies and methodical recommendations for teaching the means of verbalizing the concept of —purpose in Modern English at Russian schools have been worked out and offered for extensive use.

The theoretical value of the research lies in the fact that related languages has been further elaborated, and on the basis of the linguo-didactic comparison useful strategies (methodical recommendations) for teaching the means of expressing the Modern English at Uzbek schools have been worked out and offered.

The practical value of the research is traced in that : the results of the research can be used in lectures on theoretical phonetics of contemporary English, linguo-culturology, socio-linguistics, intercultural communication, in the theory and practice of phonetics, as well as when lecturing on methodology of teaching foreign (English) language and providing sources for seminars in the practice of teaching English phonetics. The main provisions of this research may serve a basis for further study of the suprasegmental units and other suchlike concepts.

Field of application: the results of this research work can be used in the process of teaching at schools, lyceums, colleges, and universities and may be extensively used in the theory and practice of phonetic.

The structure of the work: the work consists of an introduction, main part with two chapters, conclusion and list of the used literature.

Introduction notes specific topic chosen, which is determined by the relevance and novelty, sets goals and objectives and so on.

In the first chapter which consists of the two parts, we have given the analysis of the segmental units.

In the second chapter we discussed information about suprasegmental units of phonetics and their characteristic features.

Chapter I. Segmental and suprasegmental units of phonetics

I.1 General Notion of segmental units of phonetics

Phonetics is itself divided into two major components: segmental phonetics, which is concerned with individual sounds (i.e. "segments" of speech) and suprasegmental phonetics whose domain is the larger units of connected speech: syllables, words, phrases and texts. The way these elements of the phonetic structure of English function in the process of communication will be the main concern of this course. The description of the phonetic structure of English will be based on the so-called Received Pronunciation. [7;25]

We all agree that we are to study the "norm" of English, as a whole, and the "norm" of English pronunciation in particular. There is no much agreement, however, as far as the term "norm" is concerned. This term is interpreted in different ways. Some scholars, for instance, associate "norm" with the so-called "neutral" style. According to this conception stylistically marked parameters do not belong to the norm. More suitable, however, seems to be the conception put forward by Y. Screbnev, who looks upon the norm as a complex of all functional styles. We shall give priority to the second point of view as it is clearly not possible to look upon the pronunciation norm as something ideal which does not, in fact, exist in objective speech. We shall look upon the norm as a complex unity of phonetic styles realized in the process of communication in accordance with varying extralinguistic and social factors. [7;28]

The phonetic system of language is a set of phonetic units arranged in an orderly way to replace each other in a given framework. Phonetics is divided into two major components (or systems): segmental phonetics, which is concerned with individual sounds (i.e. "segments" of speech) and suprasegmental phonetics dealing with the larger units of connected speech: syllables, words, phrases and texts.

1. Segmental units are sounds of speech (vowels and consonants) which form the vocalic and consonantal systems;
2. Suprasegmental, or prosodic, units are syllables, stress, intonation groups and utterances.

Now we may define phonetics as a branch of linguistics that studies speech sounds in the broad sense, comprising segmental sounds, suprasegmental units and prosodic phenomena (pitch, stress, tempo, rhythm, pauses).

As we know the phoneme is the main unit of the segmental units of phonetics. There are several definitions of the phoneme in phonetics which were given by different linguists. So they differ from one another in a slightly way. Let`s take some of definitions of the phoneme as an example:

L.V.Shcherba: the phoneme may be viewed as a functional, material and abstract unit.

V.A.Vassilyev: The phoneme is a smallest unit capable of distinguishing one word from another word, one grammatical form of word from another

Bloch: phoneme is a class of phonemically similar sounds contrasting and mutually exclusive with all similar classes in the language

Jacobson: phoneme is a minimal sound by which meaning may be discriminated. [12;54]

And now, let us consider the phoneme from the point of view of its three aspects.

1. The phoneme is a functional unit. Function is usually understood to mean discriminatory function, that is, the role of the various components of the phonetic system of the language in distinguishing one morpheme from another, one word from another or also one utterance from another.

The opposition of phonemes in the same phonetic environment differentiates the meaning of morphemes and words, e.g. said— says, sleeper — sleepy, bath — path, light — like.

Also phoneme can fulfill a distinctive function - Sometimes the opposition of phonemes serves to distinguish the meaning of the whole phrases, e.g. He was heard badly — He was hurt badly. [7;42]

2. The phoneme is material, real and objective. That means that it is realized in speech in the form of speech sounds, its allophones. The sets of speech sounds, that is the allophones belonging to the same phoneme are not identical in their articulatory content though there remains some phonetic similarity between them.

English phoneme [d] when not affected by the articulation of the preceding or following sounds is a plosive, fore-lingual apical, alveolar, lenis stop. This is how it sounds in isolation or in such words as door, darn, down, etc., when it retains its typical articulatory characteristics. In this case the consonant [d] is called the principal allophone. The allophones which do not undergo any distinguishable changes in the chain of speech are called principal. At the same time there are quite predictable changes in the articulation of allophones that occur under the influence of the neighbouring sounds in different phonetic situations. Such allophones are called subsidiary, [d] is slightly palatalized before front vowels and the sonorant [j], e.g. deal, day, did, did you. [d] is pronounced without any plosion before another stop, e.g. bedtime, bad pain, good dog; it is pronounced with the nasal plosion before the nasal sonorants [n] and [m], e.g. sudden,

admit, could not, could meet; the plosion is lateral before the lateral sonorant [l], e.g. middle, badly, bad light. The alveolar position is particularly sensitive to the influence of the place of articulation of a following consonant. Thus followed by [r] the consonant [d] becomes post-alveolar, e.g. dry, dream; followed by the interdental [θ], [ð] it becomes dental, e.g. breadth, lead the way, good thing. When [d] is followed by the labial [w] it becomes labialized, e.g. dweller. In the initial position [d] is partially devoiced, e.g. dog, dean; in the intervocalic position or when followed by a sonorant it is fully voiced, e.g. order, leader, driver; in the word-final position it is voiceless, e.g. road, raised, old. These modifications of the phoneme [d] are quite sufficient to demonstrate the articulatory difference between its allophones, though the list of them could be easily extended. If you consider the production of the allophones of the phoneme above you will find that they possess three articulatory features in common, all of them are forelingual lenis stops. [7;45]

Consequently, though allophones of the same phoneme possess similar articulatory features they may frequently show considerable phonetic differences.

Allophones are arranged into functionally similar groups, that is groups of sounds in which the members of each group are opposed to one another, but are opposable to members of any other group to distinguish meanings in otherwise similar sequences. Consequently allophones of the same phoneme never occur in similar phonetic contexts, they are entirely predictable according to the phonetic environment, and thus carry no useful information, that is they cannot differentiate meanings.

But the phones which are realized in speech do not correspond exactly to the allophone predicted by this or that phonetic environment. They are modified by phonostylistic, dialectal and individual factors. In fact, no speech sounds are absolutely alike.

The relationships between the phoneme and the phone (speech sound) may be illustrated by the following scheme:

3. Allophones of the same phoneme, no matter how different their articulation may be, function as the same linguistic unit. Phonemes differentiate words like tie and die from each other, and to be able to hear and produce phonemic differences is part of what it means to be a competent speaker of the language. Allophones, on the other hand, have no such function: they usually occur in different positions in the word (i.e. in different environments) and hence cannot be opposed to each other to make meaningful distinctions. For example the dark occurs following a vowel as in pill cold, but it is not found before a vowel, whereas the clear [l] only occurs before a vowel, as in lip, like. These two vowels cannot therefore contrast with each other

in the way that [l] contrasts with [r] in lip — rip or lake — rake, there are no pairs of words which differ only in that one has and the other — [l].

The function of phonemes is to distinguish the meaning of morphemes and words. So the phoneme is an abstract linguistic unit, it is an abstraction from actual speech sounds, that is allophonic modifications. [7;48]

Allophones of each phoneme possess a bundle of distinctive features, that makes this phoneme functionally different from all other phonemes of the language concerned. This functionally relevant bundle of articulatory features is called the invariant of the phoneme. Neither of the articulatory features that form the invariant of the phoneme can be changed without affecting the meaning. All the allophones of the phoneme [d], for instance, are occlusive, forelingual, lenis. If occlusive articulation is changed for constrictive one [d] will be replaced by [z], cf. breed— breeze, deal — zeal; [d] will be replaced by [g] if the forelingual articulation is replaced by the backlingual one, cf. dear — gear, day - gay. The lenis articulation of [d] cannot be substituted by the fortis one because it will also bring about changes in meaning, cf. dry — try, ladder— latter, bid— bit. That is why it is possible to state that occlusive, forelingual and lenis characteristics of the phoneme [d] are generalized in the mind of the speaker into what is called the invariant of this phoneme. [9;86]

On the one hand, the phoneme is objective real, because it is realized in speech in the material form of speech sounds, its allophones. On the other hand, it is an abstract language unit. That is why we can look upon the phoneme as a dialectical unity of the material and abstract aspects. Thus we may state that it exists in the material form of speech sounds, its allophones. Speech sounds are necessarily allophones of one of the phonemes of the language concerned. All the allophones of the same phoneme have some articulatory features in common, that is all of them possess the same invariant. Simultaneously each allophone possesses quite particular phonetic features, which may not be traced in the articulation of other allophones of the same phoneme.

The articulatory features which form the invariant of the phoneme are called distinctive or relevant. If the opposed sounds differ in one articulatory feature and this difference brings about changes in the meaning of the words the contrasting features are called relevant - f.e. port and court

The articulatory features which do not serve to distinguish meaning are called non-distinctive, irrelevant or redundant; for instance, 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.

Basic functions of the phoneme are:

1. Constitutive – phoneme constitutes words, word combinations etc.
2. Distinctive – phoneme helps to distinguish the meanings of words, morphemes
3. Recognitive – phoneme makes up grammatical forms of words, sentences, so the right use of allophones

3. The classification of English consonant sounds [11;112]

There are two major classes of sounds traditionally distinguished by phoneticians in any language. They are termed consonants and vowels. The distinction is based mainly on auditory effect. Consonants are known to have voice and noise combined, while vowels are sounds consisting of voice only. From the articulatory point of view the difference is due to the work of speech organs. In case of vowels no obstruction is made. In case of consonants various obstructions are made. So consonants are characterized by so-called close articulation, that is by a complete, partial or intermittent blockage of the air-passage by an organ or organs. The closure is formed in such a way that the air-stream is blocked or hindered or otherwise gives rise to audible friction. As a result consonants are sounds which have noise as their indispensable and most defining characteristic.

On the articulatory level each consonant may be identified by stating two general facts about it:

- 1) what sort of articulatory posture it is formed by;
- 2) whereabouts in the mouth (or pharynx) it is produced.

Besides these major characteristics the particular quality of a consonant may depend on a lot of other factors, that is by what articulatory organ (or organs) an obstruction is made, how vocal cords work at the moment of production, what cavity is used as a resonator, what is the force of articulatory effect and many others. [24;89]

According to V.A.Vassilyev primary importance should be given to the type of obstruction and the manner of production of noise. On this ground he distinguishes two large classes of consonants:

- a) occlusive, in the production of which a complete obstruction is formed;
- b) constrictive, in the production of which an incomplete obstruction is formed.

The phonological relevance of this feature could be exemplified in the following oppositions:

[ti:] – [si:] – tea – sea (occlusive – constructive)

[si:d] – [si:z] – seed – seas (occlusive – constructive)

[pul] – [ful] – pull – full (occlusive – constructive)

[bʊt] – [vʊt] – boat – vote (occlusive – constructive)

Each of two classes is subdivided into noise consonants and sonorants. The division is based on the factor of prevailing either noise or tone component in the auditory characteristic of a sound. In their turn noise consonants are divided into plosive consonants (or stops) and affricates.

Another point of is that the first and basic principle of classification should be the degree noise. Such consideration leads to dividing English consonants into two general kinds:

A — noise consonants

B — sonorants

In production of sonorants the air passage between the two organs of speech is fairly wide, that is much wider than in the production of noise consonants. As a result, the auditory effect is tone, not noise - [r], [j], [w], for example. They are also characterized by sharply defined formant structure and the total energy of most of them is very high. [13;58]

The phonological relevance of the degree of noise could be proved by the following oppositions:

[beik] — [meik] bake — make (noise consonant — sonorant)

[vi:l – [wi:l] veal — wheel (noise consonant — sonorant)

The place of articulation is determined by the active organ of speech against the point of articulation. According to this principle the English consonants are classed into:

1) labial,

2) lingual,

3) glottal.

The class of labial consonants is subdivided into: a) bilabial; b) labio-dental; and among the class of lingual consonants three subclasses are distinguished; they are: a) forelingual, b) mediolngual and c) backlingual.

[pæn] — [tæn] pan — tan (bilabial - forelingual)

[wai] - [lai] why — lie (bilabial — forelingual)

[weil] - [jeil] weil — yale (bilabial - mediolingual)

[pik] - [kik] pick — kick (bilabial - backlingual)

[les] — [jes] less — yes (forelingual .— mediolingual)

[dei] — [gei] day — gay (forelingual — backlingual)

[sai] - [hai] sigh — high (forelingual — glottal)

[fi:t] - [si:t] feet — seat (labio-dental — forelingual)

Another sound property is voiced — voiceless characteristic which depends on the work of the vocal cords. [p, b], [t, d], [k, g], [s, z], [f, v]. All voiced consonants are weak (lenis) and all voiceless consonants are strong (fortis).

Thus it may be said that the oppositions [p — b], [t — d], [k — g], [f — v], [s — z], [f — 3], [tf — dj] are primarily based on energy difference, that is on fortis — lenis articulation, which are their phonologically relevant features. It is for this reason that such characteristics as voiceless — voiced have given place to "fortis" — "lenis" terms. [21;102]

There is one more articulatory characteristic which is usually included into the set of principles on the basis of which the English consonants are classified, that is the position of the soft palate. According to this principle consonants can be oral and nasal. There are relatively few consonantal types in English which require the lowered position of the soft palate. They are the nasal occlusive sonorants [m], [n]. They differ from oral plosives in that the soft palate is lowered allowing the escape of air into the nasal cavity.

4. The classification of English vowel sounds. There are two major classes of sounds traditionally distinguished by phoneticians in any language. They are termed consonants and vowels. The distinction is based mainly on auditory effect. Consonants are known to have voice and noise combined, while vowels are sounds consisting of voice only. From the articulatory point of view the difference is due to the work of speech organs. In case of vowels no obstruction is made. In case of consonants various obstructions are made. So consonants are characterized by so-called close articulation, that is by a complete, partial or intermittent blockage of the air-passage by an organ or organs. The closure is formed in such a way that the air-stream is blocked or hindered or otherwise gives rise to audible friction. As a result consonants are sounds which have noise as their indispensable and most defining characteristic. [22;113]

Vowels unlike consonants are produced with no obstruction to the stream of air, so on the perception level their integral characteristic is naturally tone, not noise. The most important characteristic of the quality of these vowels is that they are acoustically stable. They are known to be entirely different from one another both articulatorily and acoustically.

The quality of a vowel is known to be determined by the size, volume, and shape of the mouth resonator, which are modified by the movement of active speech organs, that is the tongue and the lips. Besides, the particular quality of a vowel can depend on a lot of other articulatory characteristics, such as the relative stability of the tongue, the position of the lips, physical duration of the segment, the force of articulation, the degree of tenseness of speech organs. So vowel quality could be thought of as a bundle of definite articulatory characteristics which are sometimes intricately interconnected and interdependent. [15;121]

The analysis of the articulatory constituents of the quality of vowels suggests the following criteria termed:

- a) stability of articulation;
- b) tongue position;
- c) lip position;
- d) character of the vowel end;
- e) length;
- f) tenseness.

Stability of articulation specifies the actual position of the articulating organ in the process of the articulation of a vowel. There are two possible varieties: a) the tongue position is stable; b) it changes, that is the tongue moves from one position to another. In the first case the articulated vowel is relatively pure, in the second case a vowel consists of two clearly perceptible elements. There exists in addition a third variety, an intermediate case, when the change in the tongue position is fairly weak. So according to this principle the English vowels are subdivided into:

- a) monophthongs,
- b) diphthongs,
- c) diphthongoids.

Though the interpretation we have just given is an obvious matter for Soviet phoneticians it does not mean that this way of seeing the situation is shared-by British phoneticians. A.C.Gimson, for example, distinguishes twenty vocalic phonemes which are made of vowels and vowel glides. Seven of them are treated as short phonemes: [i], [e], [u], and thirteen as long ones: [a:], [o:] [ɜ:] [i:], [u:], [ei], [ɜu], [ai], [au], five of which are considered relatively pure: [a], [o:] [ɜ:], [i:], [u:]; the rest are referred to long phonemes with different glides: [ei], [ai], with a glide to [i]; [ɜu], [au] with a glide to [u].

Diphthongs consist of two elements, the first of which, the nucleus, being strong and distinct and the second, the glide, being very weak and indistinct.

Another principle of classification is the position of the tongue. The position of the tongue in the mouth cavity is characterized from two aspects, that is the horizontal and vertical movement. [21;160]

According to the horizontal movement there are five classes of English vowels. They are:

- 1) front: [i:], [e], [ei], [a];
- 2) front-retracted: [ɪ];
- 3) central: [ɜ:] [ɜ (u)];
- 4) back [ʊ], [o:], [ɪu:], [a:];
- 5) back-advanced: [u].

Vertical movement of the tongue:

- 1) close a) narrow: [i:] [u:];
- b) broad: [ɪ], [ʊ];
- 2) mid a) narrow: [e], [ɜ:], [e(i)], [ɜ(u)];
- b) broad: [a(i, u)];
- 3) open a) narrow: [o:], [o(i)];
- b) broad: [a(i, u)], [ʊ], [a:]

Another principle of classification is lip rounding. Three lip positions are distinguished: spread, neutral and rounded. For the purpose of classification it is sufficient to distinguish

between two lip positions: rounded and unrounded, or neutral. Any back vowel is produced with rounded lips, the degree of rounding is different and depends on the height of the raised part of the tongue; the higher it is raised the more rounded the lips are. So lip rounding is a phoneme constitutive indispensable feature, because no back vowel can exist without it.

Our next point is checkness. This quality depends on the character of the articulatory transition from a vowel to a consonant. As a result all English short vowels are checked when stressed. The degree of checkness may vary and depends on the following consonant. Before fortis voiceless consonant it is more perceptible than before a lenis voiced consonant or sonorant. All long vowels are free. [16;57]

Another articulatory characteristic of English vowels is their length or quantity. The monophthongs are divided into two varieties according to their length:

a) short vowels: [i], [e], [ɛ], [u];

b) long vowels: [i:], [a:], [o:], [ɜ:], [u:].

Vowel like any sound has physical duration — time which is required for its production (articulation). When sounds are used in connected speech they cannot help being influenced by one another. Duration is one of the characteristics of a vowel which is modified by and depends on the following factors:

- 1) its own length,
- 2) the accent of the syllable in which it occurs,
- 3) phonetic context,
- 4) the position of the sound in a syllable,
- 5) the position in a rhythmic structure,
- 6) the position in a tone group,
- 7) the position in a phrase,
- 8) the position in an utterance,
- 9) the tempo of the whole utterance,
- 10) the type of pronunciation,
- 11) the style of pronunciation.

There is one more articulatory characteristic - tenseness. It characterizes the state of the organs of speech at the moment of production of a vowel. Historically long vowels are tense while historically short vowels are lax. [26;145]

I.2 General Notion of suprasegmental units of phonetics

Within the last few decades the ever-increasing recognition of the importance of phonetics in the study of a language has led to great achievements in the field of phonetics. Today the sphere of phonetics is wider and deeper than ever before. Now the following problems have become the object of phonetic investigations - phonemes and their distribution in words, their mutual adaptation, syllable formation and syllable division, stress, intonation, the relation between oral and written speech, pronunciation types and others.

This shows that phonetics is an independent science on the one hand, and on the other, it is closely connected with a number of sciences such as physics (acoustics), biology, physiology and others. The more phonetics develops the more various branches of science become involved in the field of phonetic investigations.

Being an independent branch of linguistics, phonetics has, in its turn, developed branches of its own. [13;86]

As an independent science it began to develop in Western Europe and in Russia only in the 19th century. Within the last century especially, new concepts have sprung up, new theories and new schools have come into existence, new methods of investigation have been developed. Not only has the sphere of investigation in phonetics become widened, but several new branches of phonetics have also arisen. [11;113]

The most important of these are:

1. Special phonetics;
2. General phonetics.

S p e c i a l phonetics, in its turn, is subdivided into:

- 1) Descriptive
- 2) Historical

D e s c r i p t i v e phonetics is concerned with the study of the phonetic structure of one language only at a particular period, i.e. synchronically.

H i s t o r i c a l phonetics deals with the study of the phonetic structure of a language in its historical development, i.e. diachronically.

G e n e r a l phonetics is based on the data of special phonetics and provides valuable theoretical material, which enables us to understand clearly and to interpret correctly the different phonetic phenomena of concrete languages. It is also based on other sciences, such as physics, biology etc., and on the extensive material of special phonetics of a number of languages.

The phonetic system of language is a set of phonetic units arranged in an orderly way to replace each other in a given framework. Phonetics is divided into two major components (or

systems): **segmental phonetics**, which is concerned with individual sounds (i.e. "segments" of speech) **and suprasegmental phonetics** dealing with the larger units of connected speech: syllables, words, phrases and texts. [10;66]

1. Segmental units are sounds of speech (vowels and consonants) which form the vocalic and consonantal systems;
2. Suprasegmental, or prosodic, units are syllables, accentual (rhythmic) units, intonation groups, utterances, which form the subsystem of pitch, stress, rhythm, tempo, pauses.

Now we may define phonetics as a branch of linguistics that studies speech sounds in the broad sense, comprising segmental sounds, suprasegmental units and prosodic phenomena (pitch, stress, tempo, rhythm, pauses).

The first and the basic component of the phonetic structure of language is the system of its segmental phonemes existing in the material form of their allophones. The phonemic component has 3 aspects, or manifestations:

1. The system of its phonemes as discrete isolated units;
2. The distribution of the allophones of the phonemes;
3. The methods of joining speech sounds together in words and at their junction, or the methods of effecting VC, CV, CC, and VV transitions. [9;77]

The second component is the syllabic structure of words. The syllabic structure has two aspects, which are inseparable from each other: syllable formation and syllable division.

The third component is the accentual structure of words as items of vocabulary (i.e. as pronounced in isolation). The accentual structure of words has three aspects: the physical (acoustic) nature of word accent; the position of the accent in disyllabic and polysyllabic words; the degrees of word accent.

The fourth component of the phonetic system is the intonation structure of utterances. The four components of the phonetic system of language (phonemic, syllabic, accentual and intonation) all constitute its pronunciation (in the broad sense of the term).

Phoneme is a minimal segmental unit and it cannot be divided into other smaller units. It is impossible to pronounce the same sound in the same way many times.

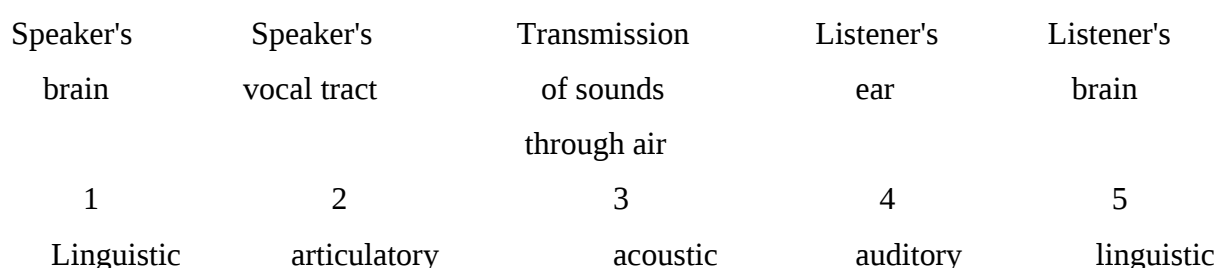
If segmental phonology studies phonemes realized in various speech sounds, then suprasegmental phonology studies the distinctive features realized in syllables, stress and intonation. [11;48]

The rapid development and great popularity of phonetics during the last 2 decades is due to the wide-spread interest of numerous linguistic scholars in cybernetic methods and techniques. This interest seems to be activated by 2 motives:

-the desire to apply precise methods of investigation to linguistic sciences;

-the desire and sometimes the necessity, to convert languages into codes which might be used for programming machines, as, for example, for the purpose of machine translation, mechanical teaching and the like. Owing to these purposes much attention is being paid to the experimental method and is considered to be the main basis of the development and improvement of pedagogical phonetics. Laboratories for phonetic research exist in most of the higher educational institutions and they are equipped with up-to-day apparatus.

Human speech is the result of a highly complicated series of events. Let us consider the speech chain, which may be diagrammed in simplified form like this:



The formation of the concept takes place in the brain of a speaker. This stage may be called psychological. The message formed within the brain is transmitted along the nervous system to the speech organs. Therefore, we may say that the human brain controls the behavior of the articulating organs which effects in producing a particular pattern of speech sounds. This second stage may be called physiological. The movements of the speech apparatus disturb the air stream thus producing sound waves. Consequently, the third stage may be called physical or acoustic. Further, any communication requires a listener, as well as a speaker. So the last stages are the reception of the sound waves by the listener's hearing physiological apparatus, the transmission of the spoken message through the nervous system to the brain and the linguistic interpretation of the information conveyed. [22;58]

The sound phenomena have different aspects:

- (a) The articulatory aspect;
- (b) The acoustic aspect;
- (c) The auditory (perceptive) aspect;
- (d) The functional (linguistic) aspect.

Now it is possible to show the correlation between the stages of the speech chain and the aspects of the sound matter.

Articulation comprises all the movements and positions of the speech organs necessary to pronounce a speech sound. According to their main sound-producing functions, the speech organs can be divided into the following four groups:

- (1) The power mechanism;
- (2) The vibration mechanism;
- (3) The resonator mechanism;
- (4) The obstruction mechanism.

The functions of the power mechanism consist in the supply of the energy in the form of the air pressure and in regulating the force of the air stream. The power mechanism includes: (1) the diaphragm, (2) the lungs, (3) the bronchi, (4) the windpipe, or trachea. The glottis and the supra-glottal cavities enter into the power mechanism as parts of the respiratory tract. The vibration mechanism consists of the larynx, or voice box, containing the vocal cords. The most important function of the vocal cords is their role in the production of voice. The pharynx, the mouth, and the nasal cavity function as the principal resonators thus constituting the resonator mechanism. The obstruction mechanism (the tongue, the lips, the teeth, and the palate) forms the different types of obstructions. [8;69]

The acoustic aspect studies sound waves. The basic vibrations of the vocal cords over their whole length produce the fundamental tone of voice. The simultaneous vibrations of each part of the vocal cords produce partial tones (overtones and harmonics). The number of vibrations per second is called frequency. Frequency of basic vibrations of the vocal cords is the fundamental frequency. Fundamental frequency determines the pitch of the voice and forms an acoustic basis of speech melody. Intensity of speech sounds depends on the amplitude of vibration.

The auditory (sound-perception) aspect, on the one hand, is a physiological mechanism. We can perceive sound waves within a range of 16 Hz-20.000 Hz with difference in 3 Hz. The human ear transforms mechanical vibrations of the air into nervous and transmits them to brain. The listener hears the acoustic features of the fundamental frequency, formant frequency, intensity and duration in terms of perceptible categories of pitch, quality, loudness and length. On the other hand, it is also a psychological mechanism. The point is that repetitions of what might be heard as the same utterance are only coincidentally, if ever, acoustically identical. Phonetic identity is a theoretical ideal. Phonetic similarity, not phonetic identity, is the criterion with which we operate in the linguistic analysis. [7;132]

Functional aspect. Phonemes, syllables, stress, and intonation are linguistic phenomena. They constitute meaningful units (morphemes, words, word-forms, utterances). Sounds of speech perform different linguistic functions.

Language can perform its function as the most important means of human intercourse only as a language of sounds, because words in all languages consist of speech sounds, and speech without words is impossible. Letters only serve to represent spoken words in writing. But words pronounced or written in isolation cannot express complete thoughts. More or less complete thoughts can only be expressed in sentences consisting of one or several words put together according to the grammar rules of the language and pronounced with proper intonation.

Chapter II. Suprasegmental units of phonetics and their characteristic features

II.1 The syllable and its nature

We have seen that suprasegmental, or prosodic, units are syllables, stress, intonation groups and utterances and now we try to define the nature of suprasegmental units of phonetics. First of all it is very important to know about syllable and its nature.

A **syllable** is a unit of organization for a sequence of speech sounds. For example, the word *water* is composed of two syllables: *wa* and *ter*. A syllable is typically made up of a syllable nucleus (most often a vowel) with optional initial and final margins (typically, consonants). [10;47]

Syllables are often considered the phonological "building blocks" of words. They can influence the rhythm of a language, its prosody, its poetic meter and its stress patterns.

Syllabic writing began several hundred years before the first letters. The earliest recorded syllables are on tablets written around 2800 BC in the Sumerian city of Ur. This shift from pictograms to syllables has been called "the most important advance in the history of writing"

A word that consists of a single syllable (like English *dog*) is called a **monosyllable** (and is said to be *monosyllabic*). Similar terms include **disyllable** (and *disyllabic*) for a word of two syllables; **trisyllable** (and *trisyllabic*) for a word of three syllables; and **polysyllable** (and *polysyllabic*), which may refer either to a word of more than three syllables or to any word of more than one syllable. [7;49]

The syllabic structure of words has two aspects which are inseparable from each other:

1. Syllable formation

2. Syllable division, or syllable separation. Both aspects are sometimes designated by the cover term *syllabification*.

Languages may differ from one another both in syllable formation and syllable division.

Differences in syllable formation involve differences in the capacity of speech sound to form syllables (to be syllabic) in different position.

For instance, the consonant [m] is syllabic in the English word "rhythm", whereas the Russian sound [m] is non-syllabic in the same position in the Russian equivalent of the same word: "ритм".

Differences in syllable division involve differences in the position of syllable division, or the syllabic boundary, and in the types of the resulting syllables (mainly open and closed), "money", in which the first syllable is closed, and "Мани", in which the first syllable is open. In English, differences in syllable division may form a distinctive function.

In the process of speech the segmental phonemes are realized and these means that listening the speech we observe the peaks of loudness of some phonemes and the minimal unit of utterance is known as a syllable. [9;98]

A syllable is a speech unit higher than a sound, because sounds are not pronounced separately but are usually formed into syllables, which, in their turn, are joined into words, phrases and sentences. A syllable is the minimal unit of sounding speech.

The syllable can be analyzed from the acoustic and auditory, articulatory and functional points of view.

a) Acoustically and auditory a syllable is characterized by the force of utterance or accent, pitch of the voice, sonority and length, i.e. by prosodic features.

b) Articulatory characteristics of a syllable are connected with sound juncture and with the theories of syllable formation and syllable division

c) Functional, or phonemic, characteristics of a syllable are connected with constitutive, precognitive and distinctive properties of a syllable.

The syllabic structure of words has 2 aspects which are inseparable from each other:

1. syllable formation

2. syllable division

Differences in syllable formation involve differences in the capacity of speech sounds to form syllables as in different positions.

Differences in syllable division involve difference as in the position of the point of syllable, division or syllabic boundary and in the types of resulting syllables. [11;57]

There are different points of view on syllable formation which are briefly the following:

1. The most ancient theory states that there are as many syllables in a word as there are vowels. This theory is primitive insufficient since it does not take into consideration consonants, which also can form syllables in some languages, neither does it explain the boundary of syllables.

2. The expiratory theory states that there are as many syllables in a word as there are expiration pluses. The borderline between the syllables is, according to this theory, the moment of the weakest expiration. This theory is inconsistent because it is quite possible to pronounce several syllables in one articulator expiration.

3. The sonority theory states that there are as many syllables in a word as there are peaks of prominence according to the scale of sonority.

Scale of sonority:

1) Low-vowels;

- 2) mid-vowels;
- 3) high-vowels;
- 4) semi- vowel ;
- 5) sonorant ;
- 6) voiced constrictive consonant ;
- 7) voiced plosive consonant;
- 8) voiceless constrictive consonant and affricates;
- 9) voiceless plosive consonant;

The sonority theory helps to establish the number of syllables in a word, but fails to explain the mechanism of syllable division because it does not state to which syllable the weak sound at the boundary of two syllables belongs.

4. The muscular tension theory, put forward by Z.V. Scherba states that the center of a syllable in the syllable forming phoneme. Sounds which precede or follow it constitute a chain or an arc which is weak in the beginning and in the end and strong in the middle.

According to the theory the following types of consonants are distinguished:

- 1) finally strong (initially weak)
- 2) finally weak (initially strong)
- 3) double peaked (geminate)

If a syllable consists of one vowel, then its strength increases in the beginning, reaches the maximum of loudness and then, gradually decreases and in polysyllabic words the number of syllables coincides with the number of "arcs of loudness", the point of syllable division corresponds to the moment when the arc of loudness begins or ends. [25;42]

The only theory current in linguistics and applied to English is the theory worked out by academician Shcherba Z.V. This theory was further developed by V.A Vasilyev and applied to English words.

V.A Vasilyev pays the prominent attention to the constructive elements of the syllable to be more exact, to the consonant element of the syllable. Here he differentiates the following functions of the consonant: "strong-end consonant" — "weak-end consonant" [13;24]

1. word distinctive function:

a name - an aim

an ice house- a nice house

2. phrasedistinctivefunction:

a black tie- a blacked eye

3. sentence distinctive function:

I saw the meat- I saw them eat

Syllables consisting of two or more speech sounds are not just mechanical groupings of segmental phonemes. These phonemes are organized into syllables through being joined together in them by specific articulatory means while syllables themselves are joined together by specific means in words and word forms and, through the letter, in phrases and sentences. [7;55]

It is generally known that syllable is always formed by a vowel sound and, in some languages it may be formed by a consonant sound as well, usually by a sonorant, (m, n, l in English). When one or more consonants are pronounced together with vowel sound in the same syllable, the vowel forms the crest or peak (centre) of the syllable. The consonants preceding or following the crest of the syllable forms its slopes.

As we have already mentioned the English sonorant [l, m, n, o, r] can form syllables with consonant preceding or following or following them in certain positions and their combinability is strictly regulated by the phonetic system of the language.

The structural patterns of syllables formed by sonorant with consonants in English are similar to V+C patterns: CS- written

According to the generally accepted classification of syllables they may be of 4 types: open, closed, covered and uncovered.

The first type (open) includes on the one form -V

The second type (closed) includes: CVC, CVCC, CCVC

The third type (covered) includes – CV, CCV, CCCV

the fourth type (uncovered) includes - VC, VVC, VCCC Thus there are structural subtypes of syllables in Modern English and their peak is formed by a vowel or a sonorant when it follows or precedes constrictive consonant open -V-I [at] close;

- 2) VC
- 3) CVCC
- 4) CVCCC
- 5) CCV C
- 6) CCCV C
- 7) CCV C C
- 8) CCVCCC
- 9) CCCVCC
- 10) CVCCCC
- 11) CCVCCCC
- 12) CVCCCCC

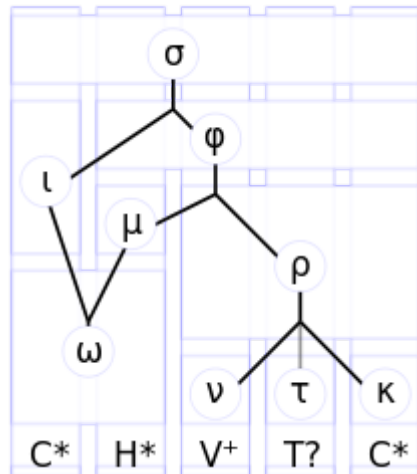
- 13) CCCVCCC Covered - CV
- 14) CCV CCCV Uncovered - VCVCC VCCC
- I. pit [pit]
 - II. fact [faekt]
 - III. lapsed [Laepst]
 - IV. plan[plaen]
 - V. spleen [spli:n]
 - VI. twiddle[twidl]
 - VII. stamps [stamps]
 - VIII. spleens[spli:nz]
 - IX. texts [teksts]
 - X. twelfths [twelf0s]
 - XI. sixths [siks0s]
 - XII. constructs [kan'strAkts]
 - XIII. to [tu]
 - XIV. spy [spai]
 - XV. straw [stra]
 - XVI. eat [i:t]
 - XVII. act [ekt]
 - XVIII. asks [asks]

As to the number of syllables in the English word it can vary from one to eight

For example:

- XIX. Come -1
- XX. City -2
- XXI. Family -3
- XXII. Simplicity -4
- XXIII. Unnaturally -5
- XXIV. Divisibility -6
- XXV. Incompatibility -7
- XXVI. Unintelligibility -8

As we know, while learning any kind of language using models is very helpful. So, in order to explain the structure of the English syllable I decided to present the “Tree representation of a syllable”. It explains the main formation of a syllable.



In most theories of phonology, the general structure of a syllable (σ) consists of three segments:

Onset (ω)

consonant, obligatory in some languages, optional or even restricted in others

Nucleus (v)

sonorant, obligatory in most languages

Coda (κ)

consonant, optional in some languages, highly restricted or prohibited in others

The syllable is usually considered right-branching, i.e. nucleus and coda are grouped together as a "rime" and are only distinguished at the second level. However, in some traditional descriptions of certain languages, the syllable is considered left-branching, i.e. onset and nucleus group below a higher-level unit, called a "body" or "core":

Rime (ρ)

right branch, contrasts with onset, splits into nucleus and coda

Body or core

left branch, contrasts with coda, splits into onset and nucleus

In some theories the onset is strictly consonantal, thus necessitating another segment before the nucleus:

Initial (ι)

often termed *onset*, but leaving out semi-vowels

Medial (μ)

glide between initial, if any, and nucleus or rime

Final (φ)

contrasts with initial, extended rime

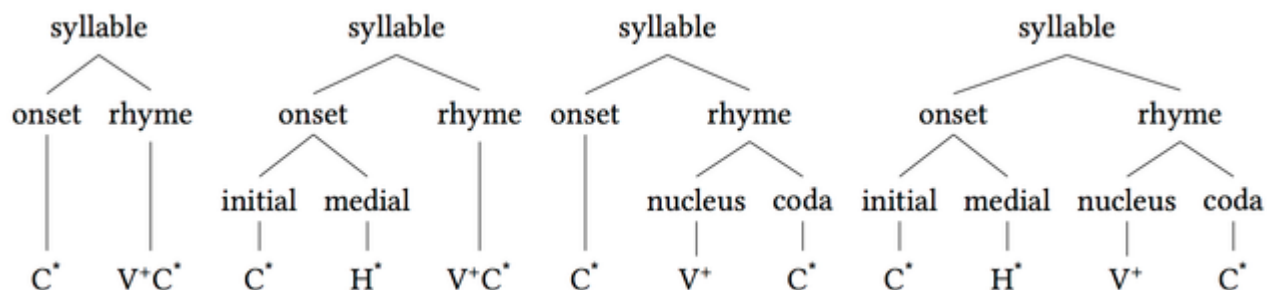
Although every syllable has supra-segmental features, these are usually ignored if not semantically relevant, e.g. in tonal languages. [27;87]

Tone (τ) may be carried by the syllable as a whole or by the rime

In some theories of phonology, these syllable structures are displayed as tree diagrams (similar to the trees found in some types of syntax). Not all phonologists agree that syllables have internal structure; in fact, some phonologists doubt the existence of the syllable as a theoretical entity.

The **nucleus** is usually the vowel in the middle of a syllable. The *onset* is the sound or sounds occurring before the nucleus, and the *coda* (literally 'tail') is the sound or sounds that follow the nucleus. They are sometimes collectively known as the *shell*. The term *rime* covers the nucleus plus coda. In the one-syllable English word *cat*, the nucleus is *a* (the sound that can be shouted or sung on its own), the onset *c*, the coda *t*, and the rime *at*. This syllable can be abstracted as a *consonant-vowel-consonant* syllable, abbreviated CVC. Languages vary greatly in the restrictions on the sounds making up the onset, nucleus and coda of a syllable, according to what is termed a language's phonotactics. [25;99]

Onset



Most syllables have an onset. Some languages restrict onsets to be only a single consonant, while others allow multiconsonant onsets according to various rules. For example, in English,

onsets such as *pr-*, *pl-* and *tr-* are possible but *tl-* is not, and *sk-* is possible but *ks-* is not. In Greek, however, both *ks-* and *tl-* are possible onsets, while contrarily in Classical Arabic no multiconsonant onsets are allowed at all. [16;114]

Some languages require all syllables to have an onset; in these languages a *null onset* such as in the English word "at" is not possible. This is less strange than it may appear at first, as most such languages allow syllables to begin with a phonemic glottal stop (the sound in the middle of English "uh-oh", represented in the IPA as /ʔ/). Furthermore, in English and most other languages, a word that begins with a vowel is automatically pronounced with an initial glottal stop when following a pause, whether or not a glottal stop occurs as a phoneme in the language. Consequently, few languages make a phonemic distinction between a word beginning with a vowel and a word beginning with a glottal stop followed by a vowel, since the distinction will generally only be audible following another word. (However, Hawaiian and a number of other Polynesian languages do make such a distinction; cf. Hawaiian /ahi/ "fire", /tahi/ "tuna".)

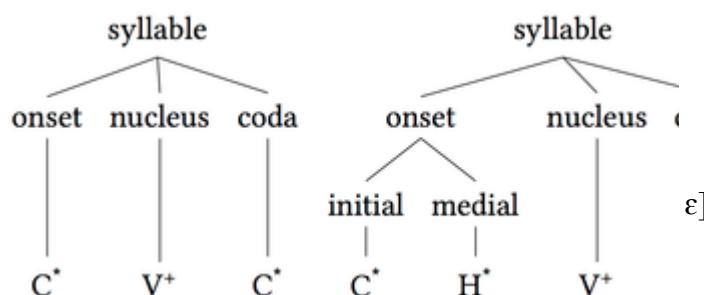
This means that the difference between a syllable with a null onset and one beginning with a glottal stop is often purely a difference of phonological analysis, rather than the actual pronunciation of the syllable. In some cases, the pronunciation of a (putatively) vowel-initial word when following another word – particularly, whether or not a glottal stop is inserted – indicates whether the word should be considered to have a null onset. For example, many Romance languages such as Spanish never insert such a glottal stop, while English does so only some of the time, depending on factors such as conversation speed; in both cases, this suggests that the words in question are truly vowel-initial. But there are exceptions here, too. For example, German and Arabic both require that a glottal stop be inserted between a word and a following, putatively vowel-initial word. Yet such words are said to begin with a vowel in German but a glottal stop in Arabic. The reason for this has to do with other properties of the two languages. For example, a glottal stop does not occur in other situations in German, e.g. before a consonant or at the end of word. On the other hand, in Arabic, not only does a glottal stop occur in such situations but it occurs in alternations that are clearly indicative of its phonemic status. [10;111]

The writing system of a language may not correspond with the phonological analysis of the language in terms of its handling of (potentially) null onsets. For example, in some languages written in the Latin alphabet, an initial glottal stop is left unwritten; on the other hand, some languages written using non-Latin alphabets such as abjads and abugidas have a special zero consonant to represent a null onset. As an example, in Hangul, the alphabet of the Korean

language, a null onset is represented with $\emptyset$ at the left or top section of a grapheme, as in 역 "station", pronounced *yeok*, where the diphthong *yeo* is the nucleus and *k* is the coda.

Nucleus

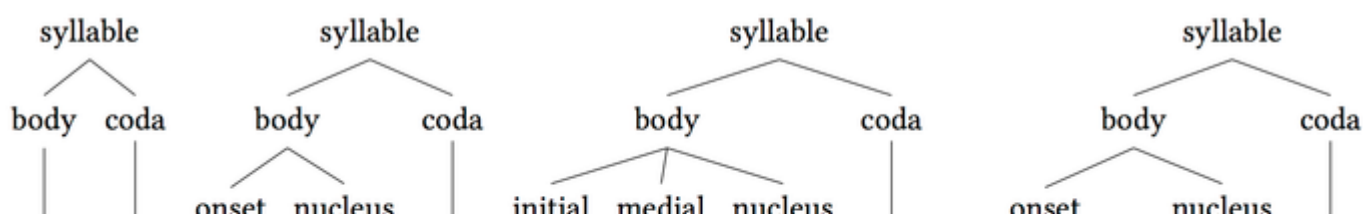
Generally, every syllable requires a nucleus (sometimes called the *peak*), and the minimal syllable consists only of a nucleus, as in the English words "eye" or "owe". The syllable nucleus is usually a vowel, in the form of a monophthong, diphthong, or triphthong, but sometimes is a syllabic consonant.



By far the most common syllabic consonants are sonorants like [l], [r], [m], [n] or [ŋ], but a few languages have so-called syllabic fricatives, also known as *fricative vowels*. (In the context of Chinese phonology, the related but non-synonymous term *apical vowel* is commonly used.) Mandarin Chinese is famous for having such sounds in at least some of its dialects, for example the pinyin syllables *sī shī rī*, sometimes pronounced [sʃ̺ ʃ̺ʃ̺ ʃ̺ʃ̺] respectively. A few languages, such as Nuxalk (Bella Coola), even allow stop consonants and voiceless fricatives as syllabic nuclei. However, linguists have analyzed this situation in various ways, some arguing that such syllables have no nucleus at all, and some arguing that the concept of "syllable" cannot clearly be applied at all to these languages. See the discussion below concerning syllable-less languages.

Coda

The **coda** comprises the consonant sounds of a syllable that follow the nucleus, which is usually a vowel. The combination of a nucleus and a coda is called a rime. Some syllables consist only of a nucleus with no coda. Some languages' phonotactics limit syllable codas to a small group of single consonants, whereas others allow any consonant phoneme or even clusters of consonants.



A coda-less syllable of the form V, CV, CCV, etc. is called an **open syllable** (or *free syllable*), while a syllable that has a coda (VC, CVC, CVCC, etc.) is called a **closed syllable** (or *checked syllable*). Note that they have nothing to do with open and close vowels. Almost all languages allow open syllables, but some, such as Hawaiian, do not have closed syllables.

Here are some English single-syllable words that have both a nucleus and a coda:

- *an*: $\kappa = /n/$, $\nu = /æ/$ (stressed) or $/ə/$ (unstressed)
- *cup*: $\kappa = /p/$, $\nu = /ʌ/$
- *tall*: $\kappa = /l/$, $\nu = /ɔ:/$ (or short)
- *tints*: $\kappa = /nts/$, $\nu = /ɪ/$
- *fifths*: $\kappa = /fθs/$, $\nu = /ɪ/$
- *sixths*: $\kappa = /ksθs/$, $\nu = /ɪ/$
- *twelfths*: $\kappa = /lfθs/$, $\nu = /ɛ/$
- *strengths*: $\kappa = /ŋθs/$, $\nu = /ɛ/$

The following single-syllable words end in a nucleus and do not have a coda:

- *glue*, $\nu = /u:/$
- *pie*, $\nu = /aɪ/$ or $/aɪ/$
- *though*, $\nu = /əʊ/$ (UK) or $/oo/$ (US)
- *boy*, $\nu = /ɔɪ/$

II.2. The stress and its nature

The third component of the phonetic system of English is the accentual structure of its words as items of vocabulary (i.e. as pronounced in isolation, but not in phrases or sentences).

The accentual structure of words has three aspects:

1. the physical (acoustic) nature of word accent;
2. the position of the accent in disyllabic and polysyllabic words;
3. the degrees of word accent.

Languages may differ in all these aspects of word accent.

The physical nature of word accent involves the use of this or that component of the sound matter of language (except the voice-timber and, probably, the spectral ones) or a combination of them, to effect word accent in a given language, i.e. to make a syllable in a word more prominent than other syllables in it and pronounce a monosyllabic word the same acoustic characteristics which would make it most prominent in disyllabic or polysyllabic words. c.f. /po:t/(port) - /im'pO:t/(import). [19;58]

The position of the accent of different degrees in disyllabic and polysyllabic words is an externally important aspect of the accentual component of the phonetic system of a language, especially in one with the so-called *free* word accent, i.e. a language in which the accent may fall on any syllable in different words.

In some languages word accent performs not only the constitutive and precognitive functions, but also the word and form- distinctive function.

The fourth component of the phonetic system of English is the intonation structure of sentences in it.

The accentual structure of English words is closely connected with their syllabic structure. In disyllabic and polysyllabic words their accentual structure is constituted by the occurrence of syllables with different degrees of special prominence in different positions.

The greater degree of special prominence given to one or more syllables as compared with that of the other syllable or syllables in one and the same word is known as word accent. This definition applies, logically, only to disyllabic and polysyllabic words. But monosyllabic words pronounced as vocabulary items in isolation are also considered to have word accent. [19;62]

Languages differ from each other in the principal means by which the special prominence of speech sounds is achieved. These types of word accent are distinguished first of all according to the articulator means by which it is effected.

4. word accent effected by the force of utterance is called dynamic;
5. a syllable can be made by specially prominent by uttering it on a different pitch level and this kind of word accent is called musical or pitch accent;
6. a syllable becomes more prominent when its vowel is pronounced longer than another vowel or other vowels of the same timber. Word accent effected by this means is called quantitative accent
7. Some linguistics also distinguish quantitative accent ['hahə;] etc.

Word accent in such European languages as English, French, German, and Russian is traditionally considered to be predominantly dynamic, with different degrees of the force of uttering a stressed syllable.

The majority of British phoneticians distinguishes three degree of word stress. From a purely phonetic point of view a polysyllabic word has, strictly speaking, as many degrees of stress as there are syllables in it.

According to them the strongest stress is called "primary" stress, the second strongest "secondary" while all the other degrees of stress are grouped together under the cover term "weak stress".

Different types of word accent are distinguished not only according to its nature or degree, but also according to its position, place in different of the language. From this point of view two types of a word distinguished:

1. Fixed
2. Free

In languages with fixed word accent the main accent falls invariable on a syllable which occupies in all the words of the language one and the same position in relation to the beginning or end of a word. [19;77]

In languages with free word accent the main accent may fall in different words on a syllable in any position in relation to the beginning or end of a word. Within free word accent two subtypes are distinguished on morphological grounds:

- 1) constant accent
- 2) shifting accent

A constant accent is one which remains on the same morpheme in different grammatical forms of a word or in derivatives from one and the same root.

e.g. in Russian: но'ша- но'ши, но'шу, но'шам, но'шах, но'шамиятс.

A shifting accent is one which falls on different morphemes in different grammatical forms of a word or in different derivatives from one and the same root.

e.g. in Russian: са'д- сады", - садово'д etc.

Word accent in English is also free, but the "freedom" is restricted by certain tendencies. It can be explained if we take into consideration the fact that the word-stock of Modern English has several layers of different origin.

The sequence of syllables in the word is not pronounced identically. The syllable or syllables which are uttered with more prominence than the other syllables of the word are said to be stressed or accented. Stress in the isolated word is termed word stress; stress in connected speech is termed sentence stress.

Stress is defined differently by different authors. B.A. Bogoroditsky, for instance, defined stress as an 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. According to A.C. Gimson, the effect of prominence is achieved by any or all of four factors: force, tone, length and vowel color. [11;58]

If we compare stressed and unstressed syllables in the words *contract* ['kyntrækt], *to contract* [kən'trækt], we may note that in the stressed syllable:

- (a) the force is greater, which is connected with more energetic articulation;
- (b) the pitch of voice is higher, which is connected with stronger tenseness of the vocal cords and the walls of the resonance chamber;
- (c) the quantity of the vowel [æ] in [kən'trækt] is greater, the vowel becomes longer;
- (d) 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 than ['æ].

On the auditory level a stressed syllable is the part of the word which has a special prominence. It is produced by a greater loudness and length, modifications in the pitch and quality. The physical correlates are: intensity, duration, frequency and the formant structure. All these features can be analyzed on the acoustic level. 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. In different languages one of the factors constituting word stress is usually more significant than the others. According to the most important feature different types, of word stress are distinguished in different languages. [15;109]

1) If special prominence in a stressed syllable or syllables is achieved mainly through the intensity of articulation, such type of stress is called dynamic, or force stress.

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

3) 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.

4) 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 Russian vowels always depends on the position in a word.

Now we should like to distinguish the notions of word stress and sentence stress. They are first of all different in their sphere of application as they are applied to different language units: word stress is naturally applied to a word, as a linguistic unit, sentence stress is applied to a phrase. Secondly, the distinction of the rhythmic structure of a word and a phrase is clearly observed in the cases when the word stress in notional words is omitted in a phrase, e.g. *I 'don't think he is 'right* or when the rhythmic structure of the isolated word does not coincide with that of a phrase, e.g. *'Fifteen. 'Room Fifteen. 'Fifteen 'pages.*

So in a speech chain the phonetic structure of a word obtains additional characteristics connected with rhythm, melody, and tempo. Though the sentence stress falls on the syllable marked by the word stress it is not realized in the stressed syllable of an isolated word but in a word within speech continuum. Since the spheres of word stress and sentence stress fall apart their functions are actually different. Sentence stress organizes a sentence into a linguistic unit, helps to form its rhythmic and intonation pattern, and performs its distinctive function on the level of a phrase. [12;99]

Stress difficulties peculiar to the accentual structure of the English language are connected with the vowel special and inherent prominence. In identical positions the intensity of English vowels is different. The highest in intensity is /a:/, then go /o:/, ɜ:/, i:/, u:/, æ, y, e, i/.

All English vowels may occur in accented syllables, the only exception is /ə/, which is never stressed. English vowels /i, u, ə/ tend to occur in unstressed syllables. Syllables with the syllabic /l, m, n/ are never stressed. Unstressed diphthongs may partially lose their glide quality. In stressed syllables English stops have complete closure, fricatives have full friction and features of distinction are clearly defined.

Languages are also differentiated according to the place of word stress. The traditional classification of languages concerning place of stress in a word is into those with a fixed stress and those with a free stress. In languages with a fixed stress the occurrence of the word stress is limited to a particular syllable in a polysyllabic word. For instance, in French the stress falls on the last syllable of the word (if pronounced in isolation), in Finnish and Czech it is fixed on the first syllable, in Polish on the one but last syllable. In languages with a free stress its place is not confined to a specific position in the word. In one word it may fall on the first syllable, in another on the second syllable, in the third word — on the last syllable, etc. The free placement of stress is exemplified in the English and Russian languages, e.g.

English: *'appetite - be'ginning - ba'lloon*;

Russian: *озеро - погода - молоко*.

The word stress in English as well as in Russian is not only free but it may also be shifting, performing the semantic function of differentiating lexical units, parts of speech, grammatical forms. In English word stress is used as a means of word-building; in Russian it marks both word-building and word formation, e.g. *'contrast — con'trast; 'habit — habitual 'music — mu'sician; дома— дома; чудная— чудная, воды— воды*.

There are actually as many degrees of stress in a word as there are syllables. The opinions of phoneticians differ as to how many degrees of stress are linguistically relevant in a word. The British linguists usually distinguish three degrees of stress in the word. A.C. Gimson, for example, shows the distribution of the degrees of stress in the word *examination*. The primary stress is the strongest, it is marked by number 1, the secondary stress is the second strongest marked by 2. All the other degrees are termed weak stress. Unstressed syllables are supposed to have weak stress. The American scholars B. Bloch and G. Trager find four contrastive degrees of word stress, namely: loud, reduced loud, medial and weak stresses. Other American linguists also distinguish four degrees of word stress but term them: primary stress, secondary stress, tertiary stress and weak stress. The difference between the secondary and tertiary stresses is very subtle and seems subjective. The criteria of their difference are very vague. The second preatomic syllables of such words as *libe'ration, recog'nition* are marked by secondary stress in BrE, in AmE they are said to have tertiary stress. In AmE tertiary stress also affects the suffixes -

ory, -ary, -ony of nouns and the suffixes -ate, -ize, -y of verbs, which are considered unstressed in BrE, e.g. 'territory, 'ceremony, 'dictionary; 'demonstrate, 'organize, 'simplify.[15;89]

British linguists do not always deny the existence of tertiary stress as a tendency to use a tertiary stress on a post-tonic syllable in RP is also traced.

Word stress in a language performs three functions.

1. Word stress constitutes a word, it organizes the syllables of a word into a language unit having a definite accentual structure, that is a pattern of relationship among the syllables; a word does not exist without the word stress. Thus the word stress performs the constitutive function. Sound continuum becomes a phrase when it is divided into units organized by word stress into words.

2. Word stress enables a person to identify a succession of syllables as a definite accentual pattern of a word. This function of word stress is known as identification (or precognitive). Correct accentuation helps the listener to make the process of communication easier, whereas the distorted accentual pattern of words, misplaced word stresses prevent normal understanding.

3. Word stress alone is capable of differentiating the meaning of words or their forms, thus performing its distinctive function. The accentual patterns of words or the degrees of word stress and their positions form oppositions, e.g. 'import — im'port, 'billow — below.

The accentual structure of English words is liable to instability due to the different origin of several layers in the Modern English word-stock. In Germanic languages the word stress originally fell on the initial syllable or the second syllable, the root syllable in the English words with prefixes. This tendency was called recessive. Most English words of Anglo-Saxon origin as well as the French borrowings (dated back to the 15th century) are subjected to this recessive tendency. Unrestricted recessive tendency is observed in the native English words having no prefix, e.g. *mother, daughter, brother, swallow*, in assimilated French borrowings, e.g. *reason, colour, restaurant*. Restricted recessive tendency marks English words with prefixes, e.g. *foresee, begin, withdraw, apart*. A great number of words of Anglo-Saxon origin are monosyllabic or disyllabic, both notional words and form words. They tend to alternate in the flow of speech, e.g. 'don't be'lieve he's 'right. [19;97]

The rhythm of alternating stressed and unstressed syllables gave birth to the rhythmical tendency in the present-day English which caused the appearance of the secondary stress in the multisyllabic French borrowings, e.g. *revolution, organi'sation, assimilation*, etc. It also explains the placement of primary stress on the third syllable from the end in three- and four-syllable words, e.g. 'cinema, 'situate, ar'ticulate. The interrelation of both the recessive and the

rhythmical tendencies is traced in the process of accentual assimilation of the French-borrowed word *personal* on the diachronic level, e.g. *perso'nal*— '*perso'nal*— '*personal*.

The appearance of the stress on the first syllable is the result of the recessive tendency and at the same time adaptation to the rhythmical tendency. The recessive tendency being stronger, the trisyllabic words like *personal* gained the only stress on the third syllable from the end, e.g. '*family*, '*library*, '*faculty*, '*possible*.

The accentual patterns of the words *territory*, *dictionary*, *necessary* in AmE with the primary stress on the first syllable and the tertiary stress on the third are other examples illustrating the correlation of the recessive and rhythmical tendencies. Nowadays we witness a great number of variations in the accentual structure of English multisyllabic words as a result of the interrelation of the tendencies. The stress on the initial syllable is caused by the diachronical recessive tendency or the stress on the second syllable under the influence of the strong rhythmical tendency of the present day, e.g. '*hospitable* — *ho'spitable*, '*distribute* — *dis'tribute*, '*aristocrat* — *a'ristocrat*, '*laryngoscope* — *la'ryngoscope*.

A third tendency was traced in the instability of the accentual structure of English word stress, the retentive tendency: a derivative often retains the stress of the original or parent word, e.g. '*similar* — *as'similate*, *recom'mend*— *recommen'dation*.

The numerous variations of English word stress are systematized in the typology of accentual structure of English words worked out by G.P. Torsuyev. He classifies them according to the number of stressed syllables, their degree or character (the main and the secondary stress). The distribution of stressed syllables within the word accentual types forms accentual structures of words. Accentual types and accentual structures are closely connected with the morphological type of words, with the number of syllables, the semantic value of the root and the prefix of the word. [19;100]

The accentual types are:

1. This accentual type marks both simple and compound words. The accentual structures of this type may include two and more syllables, e.g. '*father*, '*possibly*, '*mother-in-law*, '*gas-pipe*.

2. The accentual type is commonly realized in compound words, most of them are with separable prefixes, e.g. '*radio-active*, '*re-write*, '*disobey*.

3. and 4. The accentual types are met in initial compound abbreviations like '*U'S'A*, '*U'S'S'R*.

5. The type is realized both in simple and compound words, very common among compound words, e.g. '*hair-dresser*, '*substructure*.

6. The accentual type marks a great number of simple words and some compound words as well. In simple words the stresses fall onto:

1. The prefix and the root: *maga'zine*;
2. The root and the suffix: *hospi'tality*;
3. The prefix and the suffix: *disorganization*.

The other five types are rare and found in small number of words.

The data given above suggest an idea of the great variability in the accentual structure of English words. The most widely spread among the enumerated accentual types are supposed to be Type 1, Type 2, Type 5 and Type 6. Each type includes varieties of definite accentual structures with different numbers of syllables and marks thousands of words. So the four of them cover the main bulk of most common English words and are therefore most typical for the English vocabulary. [15;66]

The variability of the word accentual structure is multiplied in connected speech. The accentual structure of words may be altered under the influence of rhythm, e.g. *An 'unpolished 'stone* but: *The 'stone was un'polished*.

The tempo of speech may influence the accentual pattern of words. With the quickening of the speed the carefulness of articulation is diminished, the vowels are reduced or elided, the secondary stress may be dropped, e.g. *The 'wholeorgani'zation of the 'meeting was 'faulty*.

II.3 Intonation and its nature

The four components of the phonetic system of English (phonemic, syllabic, accentual and intonational) all constitute its *pronunciation* (in the broadest sense of the term)

Therefore the knowledge of the phonetic system of English language by a student of phonetics and the mastery of its pronunciation by a language-learner involve the study and mastery of each component of its phonetic structure.

The highest language unit - the sentence - may consist of a single word in the proper grammatical form, or of a number of words joined together in the sentence in accordance with the grammar and phonetic rules of the language. This means that the words in it are arranged in the proper order and have the proper grammatical forms. The ORIGINAL factor that turns a word or a combination of words into a sentence is Intonation, e.g. go as a vocabulary item and Go! as a one-word sentence. [14;87]

Intonation, coupled with the proper choice of words and grammatical structure, is the main constituent feature of the sentence, and the basic function of intonation is therefore the sentence - constitutive one. Since intonation is a sentence - constitutive element in language, it is not only a phonetic, but also a grammatical, syntactic, means of expressions, because the syntax of a language is the combination of all its means of putting its words together into sentence.

In intonation the four components (the speech melody, the accent or item, the tempo and voice-timber) function all together, and none of them can be isolated or separated from the others in actual speech.

Thus intonation may be defined as such a unity of speech melody, sentence-stress, voice timber and the tempo of speech which enables the speaker to express adequately the meaning of sentences, his attitude towards their contents and his emotions. [17;55]

Speech melody, or the pitch component of intonation is the variations in the pitch of the voice which take place when voiced sounds, especially vowels and consonants are pronounced in connected speech.

Stress in speech is the greater prominence which is given to one or more words in a sentence as compared with the other words of the same sentence. The difference in the pitch and length in a sentence also plays a certain role in producing the effect of sentence-stress. [18;88]

The timber of speech is the special coloring of the voice in pronouncing sentences, which is superimposed on speech melody and shows the speaker's emotions, such as joy, sadness, irony etc.

The tempo of speech is the speed with which sentences or their parts are pronounced. It is determined by the rate of which speech-sounds are uttered and by the number and length of pauses. Closely connected with the tempo of speech is the rhythm.

The components of intonation are said to form a unity, because they always function all together, and none of them can be separated from any of the others.

The following nuclear tones may be distinguished in RP:

- a) The high-falling tone
- b) The low-falling tone
- c) The high-rising tone
- d) The low-rising tone
- e) The rising-falling tone
- f) The falling-rising tone
- g) The rising-falling-rising tone

Or generally:

- 1. High level tone
- 2. Mid level tone
- 3. Low level tone

The main types of scale are the following:

- 1. The regular descending scale
- 2. The broken descending scale
- 3. The ascending scale
- 4. The scandent scale [20;59]

According to academic L.V.Scherba intonation has the following 3 functions:

- 1) The structural function;
- 2) the grammatical function;
- 3) the emotional function.

In the structure of intonation we distinguish:

- 1. pre-head
- 2. head
- 3. body or scale
- 4. tail [20;60]

Any unstressed or partially stressed syllable or syllables preceding the first fully stressed syllable of an intonation-group is called pre-head.

The next section is formed by the first full) stressed syllable of the intonation-group and is called head.

The third section of an intonation-group is formed by the stressed and unstressed syllables lying between the head and nucleus of tie group and is called scale (body).

When the nuclear syllable is followed by any unstressed or partially stressed syllable or syllables, tills section of intonation-group is called its tail.

Intonation is a language universal. There are no languages which are spoken without any change of prosodic parameters but intonation functions in various languages in a different way. [23;120]

There are two main approaches to the problem of intonation in Great Britain. One is known as acontour analysis and the other may be called grammatical.

The first is represented by a large group of phoneticians: H. Sweet, D. Jones, G. Palmer, L. Armstrong, I. Ward, R. Kingdon, J. O'Connor, A. Gimson and others. It is traditional and widely used. According to this approach the smallest unit to which linguistic meaning can be attached is a tone-group (sense-group). Their theory is based on the assumption that intonation consists of basic functional "blocks". They pay much attention to these "blocks" but not to the way they are connected. Intonation is treated by them as a layer that is superimposed on the lexico-grammatical structure. In fact the aim of communication determines the intonation structure, not vice versa. [24;111]

The grammatical approach to the study of intonation was worked out by M. Halliday. The main unit of intonation is a clause. Intonation is a complex of three systemic variables: tonality, tonicity and tone, which are connected with grammatical categories. Tonality marks the beginning and the end of a tone-group. Tonicity marks the focal point of each tone-group. Tone is the third unit in Halliday's system. Tones can be primary and secondary. They convey the attitude of the speaker. Hallyday's theory is based on the syntactical function of intonation.

The founder of the American school of intonation K. Pike in his book «The Intonation of American English» considers «pitch phonemes» and «contours» to be the main units of intonation. He describes different contours and their meanings, but the word «meaning» stands apart from communicative function of intonation.

There is wide agreement among Russian linguists that on perception level intonation is a complex, a whole, formed by significant variations of pitch, loudness and tempo closely related. Some Russian linguists regard speech timbre as the fourth component of intonation. Neither its material form nor its linguistic function has been thoroughly described. Though speech timbre definitely conveys certain shades of attitudinal or emotional meaning there is no good reason to

consider it alongside with the three prosodic components of intonation, i.e. pitch, loudness and tempo.

M. Sokolova and others write that the term prosody embraces the three prosodic components and substitutes the term intonation. It is widely used in linguistic literature, it causes no misunderstanding and, consequently, it is more adequate. They feel strongly that this term would be more suitable for their book too, but, unfortunately, it has not been accepted in the teaching process yet.

Many foreign scholars (A. Gimson, R. Kingdon) restrict the formal definition of intonation to pitch movement alone, though occasionally allowing in variations of loudness as well. According to D. Crystal, the most important prosodic effects are those conveyed by the linguistic use of pitch movement, or melody. It is clearly not possible to restrict the term intonation by the pitch parameters only because generally all the three prosodic parameters function as a whole though in many cases the priority of the pitch parameter is quite evident.

There is no general agreement about either the number or the headings of the functions of intonation which can be illustrated by the difference in the approach to the subject by some prominent Russian phoneticians. T.M. Nikolayeva names three functions of intonation: delimitating, integrating and semantic. L.K. Tseplitis suggests the semantic, syntactic and stylistic functions the former being the primary and the two latter being the secondary functions. N.V. Cheremisina singles out the following main functions of intonation: communicative, distinctive (or phonological), delimitating, expressive, appellative, aesthetic, integrating. Other Russian and foreign phoneticians also display some difference in heading the linguistic functions of intonation. [24;115]

D. Crystal distinguishes the following functions of intonation.

- Emotional function's most obvious role is to express attitudinal meaning -sarcasm, surprise, reserve, impatience, delight, shock, anger, interest, and thousands of other semantic nuances.
- Grammatical function helps to identify grammatical structure in speech, performing a role similar to punctuation. Units such as clause and sentence often depend on intonation for their spoken identity, and several specific contrasts, such as question/statement, make systematic use of it.
- Informational function helps draw attention to what meaning is given and what is new in an utterance. The word carrying the most prominent tone in a contour signals the part of an utterance that the speaker is treating as new information.

- Textual function helps larger units of meaning than the sentence to contrast and cohere. In radio news-reading, paragraphs of information can be shaped through the use of pitch. In sports commentary, changes in prosody reflect the progress of the action.

- Psychological function helps us to organize speech into units that are easier to perceive and memorize. Most people would find a sequence of numbers, for example, difficult to recall. The task is made easier by using intonation to chunk the sequence into two units.

- Indexical function, along with other prosodic features, is an important marker of personal or social identity. Lawyers, preachers, newscasters, sports commentators, army sergeants, and several other occupations are readily identified through their distinctive prosody. [20;88]

Let us consider the components of intonation.

In the pitch component we may consider the distinct variations in the direction of pitch, pitch level and pitch range.

According to R. Kingdon the most important nuclear tones in English are: Low Fall, High Fall, Low Rise, High Rise, and Fall-Rise.

The meanings of the nuclear tones are difficult to specify in general terms. Roughly speaking the falling tone of any level and range expresses certainty, completeness, and independence. A rising tone on the contrary expresses uncertainty, incompleteness or dependence. A falling-rising tone may combine the falling tone's meaning of assertion, certainty with the rising tone's meaning of dependence, incompleteness. At the end of a phrase it often conveys a feeling of reservation; that is, it asserts something and at the same time suggests that there is something else to be said. At the beginning or in the middle of a phrase it is a more forceful alternative to the rising tone, expressing the assertion of one point, together with the implication that another point is to follow. The falling-rising tone, as its name suggests, consists of a fall in pitch followed by a rise. If the nucleus is the last syllable of the intonation group the fall and rise both take place on one syllable. In English there is often clear evidence of an intonation-group boundary, but no audible nuclear tone movement preceding. In such a circumstance two courses are open: either one may classify the phenomenon as a further kind of head or one may consider it to be the level nuclear tone. Low Level tone is very characteristic of reading poetry. Mid-Level tone is particularly common in spontaneous speech functionally replacing the rising tone. There are two more nuclear tones in English: Rise-Fall and Rise-Fall-Rise. But adding refinement to speech they are not absolutely essential tones for the foreign learner to acquire. Rise-Fall can always be replaced by High Fall and Rise-Fall-Rise by Fall-Rise without making nonsense of the utterance. [17;77]

According to D. Crystal, there are nine ways of saying *Yes* as an answer to the question *Will you marry me?*

1. Low fall. The most neutral tone; a detached, unemotional statement of fact.
2. Full fall. Emotionally involved; the higher the onset of the tone, the more involved the speaker; choice of emotion (surprise, excitement, irritation) depends on the speaker's facial expression.
3. Mid fall. Routine, uncommitted comment; detached and unexcited.
4. Low rise. Facial expression important; with a 'happy' face, the tone is sympathetic and friendly; with a 'grim' face, it is guarded and ominous.
5. Full rise. Emotionally involved, often «disbelief or shock, the extent of the emotion depending on the width of the tone.
6. High rise. Mild query or puzzlement; often used in echoing what has just been said.
7. Level. Bored, sarcastic, ironic.
8. Fall-rise. A strongly emotional tone; a straight or 'negative' face conveys uncertainty, doubt, or tentativeness; a positive face conveys encouragement or urgency.
9. Rise-fall. Strong emotional involvement; depending on the face, the attitude might be delighted, challenging, or complacent.

Two more pitch parameters are pitch ranges and pitch levels. Three pitch ranges are generally distinguished: normal, wide, and narrow. Pitch levels may be high, medium, and low. [18;89]

Loudness is used in a variety of ways. Gross differences of meaning (such as anger, menace, and excitement) can be conveyed by using an overall loudness level.

The tempo of speech is the third component of intonation. The term tempo implies the rate of the utterance and pausation. The rate of speech can be normal, slow and fast. The parts of the utterance which are particularly important sound slower. Unimportant parts are commonly pronounced at a greater speed than normal.

Any stretch of speech can be split into smaller portions, i.e. phonetic wholes, phrases, intonation groups by means of pauses. By 'pause' here we mean a complete stop of phonation. We may distinguish the following three kinds of pauses:

1. Short pauses which may be used to separate intonation groups within a phrase.
2. Longer pauses which normally manifest the end of the phrase.

3. Very long pauses, which are approximately twice as long as the first type, are used to separate phonetic wholes.

Functionally, there may be distinguished syntactic, emphatic and hesitation pauses.

Syntactic pauses separate phonopassages, phrases, and intonation groups. Emphatic pauses serve to make especially prominent certain parts of the utterance. Hesitation pauses are mainly used in spontaneous speech to gain some time to think over what to say next. They may be silent or filled. [14;57]

Each syllable of the speech chain has a special pitch colouring. Some of the syllables have significant moves of tone up and down. Each syllable bears a definite amount of loudness. Pitch movements are inseparably connected with loudness. Together with the tempo of speech they form an intonation pattern which is the basic unit of intonation. An intonation pattern contains one nucleus and may contain other stressed or unstressed syllables normally preceding or following the nucleus. The boundaries of an intonation pattern may be marked by stops of phonation that is temporal pauses.

Intonation patterns serve to actualize syntagms in oral speech. It may be well to remind you here that the syntagm is a group of words which is semantically and syntactically complete. In phonetics actualized syntagms are called intonation groups (sense-groups, tone-groups). Each intonation group may consist of one or more potential syntagms, e.g. the sentence / *think he is coming soon* has two potential syntagms: / *think* and *he is coming soon*. In oral speech it is normally actualized as one intonation group. [20;86]

The intonation group is a stretch of speech which may have the length of the whole phrase. But the phrase often contains more than one intonation group. The number of intonation groups depends on the length of the phrase and the degree of semantic importance or emphasis given to various parts of it:

This bed was not' slept, in— ,This be was not' slept in

An additional terminal tone on *this bed* expresses an emphasis on *this bed* in contrast to other *beds*.

Not all stressed syllables are of equal importance. One of the syllables has the greater prominence than the others and forms the nucleus, or focal point of an intonation pattern. Formally the nucleus may be described as a strongly stressed syllable which is generally the last strongly accented syllable of an intonation pattern and which marks a significant change of pitch direction, that is where the pitch goes distinctly up or down. The nuclear tone is the most important part of the intonation pattern without which the latter cannot exist at all. On the other

hand an intonation pattern may consist of one syllable which is its nucleus. The tone of a nucleus determines the pitch of the rest of the intonation pattern following it which is called the tail. Thus 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 moves in an upward pitch direction:

No, Mary — Well, Mary.

The nucleus and the tail form what is called terminal tone. The two other sections of the intonation pattern are the head and the pre-head which form the pre-nuclear part of the intonation pattern and, like the tail, they may be looked upon as optional elements:

Lake District is one of the loveliest 'parts of, Britain.

The pre-nuclear part can take a variety of pitch patterns. Variation within the pre-nucleus does not usually affect the grammatical meaning of the utterance, though it often conveys meanings associated with attitude or phonetic styles. There are three common types of pre-nucleus: a descending type in which the pitch gradually descends (often in "steps") to the nucleus; *an* ascending type in which the syllables form an ascending sequence and a level type when all the syllables stay more or less on the same level. [23;114]

The meaning of the intonation group is the combination of the «meaning» of the terminal tone and the pre-nuclear part combined with the «meaning» of pitch range and pitch level. The parts of the intonation pattern can be combined in various ways manifesting changes in meaning, cf.: the High Head combined with Low Fall, High Fall, Low Rise, High Rise, Fall-Rise in the phrase *Not at all*.

—>*Not at all*(reserved, calm).

—>*Not at all*) (surprised, concerned).

—>*Not at all*(encouraging, friendly).

—> *Not at all*(questioning).

—> *Not at all*(intensely encouraging, protesting).

The more the height of the pitch contrasts within the intonation pattern the more emphatic the intonation group sounds, cf.:

He's won. Fan tastic.

Fan tastic.

The changes of pitch, loudness and tempo are not haphazard variations. The rules of change are highly organized. No matter how variable the individual variations of these prosodic components are they tend to become formalized or standardized, so that all speakers of the language use them in similar ways under similar circumstances. These abstracted characteristics

of intonation structures may be called intonation patterns which form the prosodic system of English.

Some intonation patterns may be completely colourless in meaning: they give to the listener no implication of the speaker's attitude or feeling. They serve a mechanical function — they provide a mold into which all sentences may be poured so that they achieve utterance. Such intonation patterns represent the intonational minimum of speech. The number of possible combinations is more than a hundred but not all of them are equally important. Some of them do not differ much in meaning, others are very rarely used. That is why in teaching it is necessary to deal only with a very limited number of intonation patterns, which are the result of a careful choice. [24;45]

Phonology has a special branch, intonology, whose domain is the larger units of connected speech: intonation groups, phrases and even phonetic passages or blocks of discourse.

The descriptions of intonation show that phonological facts of intonation system are much more open to question than in the field of segmental phonology. Descriptions differ according to the kind of meaning they regard intonation is carrying and also according to the significance they attach to different parts of the tone-unit. J.D. O'Connor and G.F. Arnold assert that a major function of intonation is to express the speaker's attitude to the situation he/she is placed in, and they attach these meanings not to pre-head, head and nucleus separately, but to each of ten 'tone-unit types' *as they combine with each of four sentence types, statement, question, command and exclamation.

M. Halliday supposes that English intonation contrasts are grammatical. He argues first that there is a neutral or unmarked tone choice and then explains all other choices as meaningful by contrast. Thus if one takes the statement *I don't know* the suggested intonational meanings are: Low Fall - neutral. Low Rise - non-committal, High Rise - contradictory, Fall-Rise - with reservation, Rise-Fall - with commitment. Unlike J.D. O'Connor and G.F. Arnold, M. Halliday attributes separate significance to the pre-nuclear choices, again taking one choice as neutral and the other(s) as meaningful by contrast.

D. Crystal presents an approach based on the view "that any explanation of intonational meaning cannot be arrived at by seeing the issues solely in either grammatical or attitudinal terms". He ignores the significance of pre-head and head choices and deals only with terminal tones.

It is still impossible to classify, in any practical analysis of intonation, all the fine shades of feeling and attitude which can be conveyed by slight changes in pitch, by lengthening or

shortening tones, by increasing or decreasing the loudness of the voice, by changing its quality, and in various other ways. On the other hand it is quite possible to make a broad classification of intonation patterns which are so different in their nature that they materially: change the meaning of the utterance and to make different pitches and degrees of loudness in each of them. Such an analysis resembles the phonetic analysis of sounds of a language whereby phoneticians establish the number of significant sounds it uses. [18;100]

The distinctive function of intonation is realized in the opposition of the same word sequences which differ in certain parameters of the intonation pattern. Intonation patterns make their distinctive contribution at intonation group, phrase and text levels. Thus in the phrases:

If Mary, comes let me → know at once (a few people are expected to come but it is Mary who interests the speaker)

If → Mary comes let me → know at once (no one else but Mary is expected to come)

the intonation patterns of the first intonation groups are opposed. In the opposition *I enjoyed it - I enjoyed it* the pitch pattern operates over the whole phrase adding in the second phrase the notion that the speaker has reservations (implying a continuation something like 'but it could have been a lot better').

Any section of the intonation pattern, any of its three constituents can perform the distinctive function thus being . These units form a complex system of intonemes, tonemes, accentemes, chronemes, etc. These phonological units like phonemes consist of a number of variants. The terminal tonemes, for instance, consist of a number of allotones, which are mutually non-distinctive. The principal allotone is realized in the nucleus alone. The subsidiary allotones are realized not only in the nucleus, but also in the pre-head and in the tail, if there are any, cf.:

No. No, Tom. Oh, no, Mary.

The most powerful phonological unit is the terminal tone. The opposition of terminal tones distinguishes different types of sentence. The same sequence of words may be interpreted as a different syntactical type, i.e. a statement or a question, a question or an exclamation being pronounced with different terminal tones, e.g.:

Tom saw it (statement) - *Tom saw it?* (general question)

Didn't you enjoy it? (general question) - *Didn't you enjoy it?* (exclamation)

Will you be quiet? (request) - *Will you be quiet?* (command).

The number of terminal tones indicates the number of intonation groups. Sometimes the number of intonation groups may be important for meaning. For example, the sentence *My sister,*

who lives in the South, has just arrived may mean two different things. In oral speech it is marked by using two or three intonation groups. If the meaning is: 'my only sister who happens to live in the South', then the division would be into three intonation groups: *My sister, who lives in the South, has just arrived*. On the other hand, if the meaning is 'that one of my two sisters, who lives in the South', the division is into two intonation groups.

Together with the increase of loudness terminal tones serve to single out the semantic centre of the utterance. By semantic centre we mean the information centre which may simultaneously concentrate the expression of attitudes and feelings. The words in an utterance do not necessarily all contribute an equal amount of information, some are more important to the meaning than others. This largely depends on the context or situation in which the intonation group or a phrase is said. Some words are predisposed by their function in the language to be stressed. In English lexical (content) words are generally accented while grammatical (form) words are more likely to be unaccented although words belonging to both of these groups may be unaccented or accented if the meaning requires it. [14;99]

Let us consider the sentence *It was an unusually rainy day*. As the beginning of, say, a story told on the radio the last three words would be particularly important, they form the semantic centre with the nucleus on the word *day*. The first three words play a minor part. The listener would get a pretty clear picture of the story's setting if the first three words were not heard and the last three were heard clearly. If the last three words which form the semantic centre were lost there would be virtually no information gained at all.

The same sentences may be said in response to the question *What sort of day was it?* In this case the word *day* in the reply would lose some of its force because the questioner already possesses the information that it might otherwise have given him. In this situation there are only two important words - *unusually rainy* - and they would be sufficient as a complete answer to the question. The nucleus will be on the word *rainy*. Going further still, in reply to the question *Did it rain yesterday?* the single word *unusually* would bear the major part of the information, would be, in this sense, more important than all the others and consequently would be the nucleus of the intonation pattern. [17;77]

Grammatical words may be also important to the meaning if the context makes them so. The word *was*, for instance, has had little value in the previous examples, but if the sentences were said as a contradiction in the reply to *It wasn't a rainy day yesterday, was it?*, then *was* would be the most important word of all and indeed, the reply might simply be *It was*, omitting the following words as no longer worth saying. In this phrase the word *was* is the nucleus of the semantic centre.

These variations of the accentuation achieved by shifting the position of the terminal tone serve a striking example of how the opposition of the distribution of terminal tones is fulfilling the distinctive function.

If the phrase *I don't want you to read anything* has the low-falling terminal tone on the word *anything*, it means that for this or other reason the person should avoid reading. If the same word sequence is pronounced with the falling-rising tone on the same word, the phrase means that the person must have a careful choice in reading. [18;93]

It should be pointed out here that the most important role of the opposition of terminal tones is that of differentiating the attitudes and emotions expressed by the speaker. The speaker must be particularly careful about the attitudes and emotions he expresses since the hearer is frequently more interested in the speaker's attitude or feeling than in his words - that is whether he speaks nicely or nastily. For instance, the special question *Why?* may be pronounced with the low falling tone sounding rather detached, sometimes even hostile. When pronounced with the low-rising tone it is sympathetic, friendly, interested.

All the other sections of the intonation pattern differentiate only attitudinal or emotional meaning, e.g.: being pronounced with the high pre-head, *Hello* sounds more friendly than when pronounced with the low pre-head, cf.:

→ *He llo!* - *O He llo!*

More commonly, however, different kinds of pre-heads, heads, the same as pitch ranges and levels fulfil their distinctive function not alone but in the combination with other prosodic constituents.

We have been concerned with the relationship between intonation, grammatical patterns and lexical composition. Usually the speaker's intonation is in balance with the words and structures he chooses. If he says something nice, his intonation usually reflects the same characteristic. All types of questions, for instance, express a certain amount of interest which is generally expressed in their grammatical structure and a special interrogative intonation. However, there are cases when intonation is in contradiction with the syntactic structure and the lexical content of the utterance neutralizing and compensating them, e.g.: a statement may sound questioning, interested. In this case intonation neutralizes its grammatical structure. It compensates the grammatical means of expressing this kind of meaning: *Do you know what I'm here for?* — *No* (questioning)

There are cases when intonation neutralizes or compensates the lexical content of the utterance as it happens, for instance, in the command *Phone him at once, please*, when the meaning of the word *please* is neutralized by intonation.

Lack of balance between intonation and word content, or intonation and the grammatical structure of the utterance may serve special speech effects. A highly forceful or exciting statement said with a very matter-of-fact intonation may, by its lack of balance, produce a type of irony; if one says something very complimentary, but with an intonation of contempt, the result is an insult.

Conclusion

During writing research paper I have learnt many sources. First of all I give more attention to human speech that is the result of a highly complicated series of events. Besides I make a diagram in simplified form of human speech.

The background of phonetics are not only has the sphere of investigation in phonetics become widened, but several new branches of phonetics have also arisen. I have realized that the most important aspect is *tine* phonological one. The theoretical study which steps up to account all the phonetic distinction of a language, is called phonology. After methods it is possible to show the correlation between the stages of the speech chain and the aspects of the sound matter.

The phonetic system of language is a set of phonetic units arranged in an orderly way to replace each other in a given framework. Phonetics is divided into two major components (or systems):

-segmental phonetics, which is concerned with individual sounds (i.e. "segments" of speech) and

-suprasegmental phonetics dealing with the larger units of connected speech: syllables, words, phrases and texts.

1. Segmental units are sounds of speech (vowels and consonants) which form the vocalic and consonantal systems;

2. Suprasegmental, or prosodic, units are syllables, accentual (rhythmic) units, intonation groups, utterances, which form the subsystem of pitch, stress, rhythm, tempo, pauses.

The principal methods of Investigation used in phonetics are very important:

The direct observation method.

The linguistic method.

The experimental method.

Now we may define phonetics as a branch of linguistics that studies speech sounds in the broad sense, comprising segmental sounds, suprasegmental units and prosodic phenomena (pitch, stress, tempo, rhythm, pauses).

Speech can be broken into minimal pronounceable units into which sounds show a tendency to cluster or group. These smallest phonetic groups are generally given the name of syllables. Being the smallest pronounceable units, syllables form morphemes, words and phrases. Each of these units is characterized by a certain syllabic structure.

It is perfectly obvious that no phonetician has succeeded so far in giving an adequate explanation of what the syllable is. The difficulties seem to arise from the various possibilities of approach to the unit. There exist two points of view:

1. Some linguists consider the syllable to be a purely articulatory unit which lacks any functional value. This point of view is defended on the ground that the boundaries of syllables do not always coincide with those of morphemes.

2. However the majority of linguists treat the syllable as the smallest pronounceable unit which can reveal some linguistic function.

Trying to define the syllable from articulatory point of view we may talk about universals. When we mean the functional aspect of the syllable it should be defined with the reference to the structure of one particular language.

The definition of the syllable from the functional point of view tends to single out the following features of the syllable:

- a) a syllable is a chain of phonemes of varying length;
- b) a syllable is constructed on the basis of contrast of its constituents (which is usually of vowel - consonant type);
- c) the nucleus of a syllable is a vowel, the presence of consonants is optional; there are no languages in which vowels are not used as syllable nuclei, however, there are languages in which this function is performed by consonants;
- d) The distribution of phonemes in the syllabic structure follows by the rules which are specific enough for a particular language of syllables in English

Syllable formation in English is based on the phonological opposition vowel - consonant. Vowels are usually syllabic while consonants are not with the exceptions of [l], [m], [n], which become syllabic in a final position preceded by a noise consonant: *bottle* [bytl], *bottom* [bytm], *button* [bʌtn] and [r] (in those accents which pronounce [r]) perhaps [prʌks].

The structure of English syllables can be summarized as follows:

- Many syllables have one or more consonants preceding the nucleus. These make up the syllable onset: *me*, *so*, *plow*.
- Many syllables have one or more consonants, following the nucleus. They make up the syllable coda. They are traditionally known as closed syllables: *cat*, *jump*.
- The combination of nucleus and coda has a special significance, making up the rhyming property of a syllable.

The segmental hierarchy of a language includes the following levels:

- 1. Phonemic
- 2. Morphemic
- 3. Lexemic

4. Phrasemic
5. Proposemic (sentence)
6. Super-proposemic (text).

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.

The other aspect of this component is syllable division. The problem of syllable division in case of intervocalic consonants and their clusters, like in such words as *city*, *extra*, *standing* and others.

Let us consider the first word ['sit.i]. There exist two possibilities:

- a) The point of syllable division is after the intervocalic consonant:
- b) The point of syllable division is inside the consonant.

In both cases the first syllable remains closed because the short vowel should remain checked. The result of instrumental analyses show, that the point of syllable division in such words is inside the intervocalic consonant. EPD indicates the point of division after the consonant.

The second case. There are two syllables in the word *extra* but where should the boundary between them fall?

1) [e - kstrə]. It is unlikely that people would opt for a division between [e] and [kstrə] because there are no syllables in English which begin with consonant sequence [kstr].

2) Similarly, a division between [ekstr] and [ə] would be unnatural.

3) [ek - strə], [eks - trə], [ekst - rə] are possible. People usually prefer either of the first two options here, but there is no obvious way of deciding between them.

In some cases we may take into account the morphemic structure of words. For example, *standing* consists of two syllables; on phonetic grounds [stʌn - dɪŋ], on grammatical grounds [stʌnd - ɪŋ].

Now we shall consider two functions of the syllable.

The first is constitutive function. It lies in its ability to be a part of a word itself. The syllables form language units of greater magnitude than words, morphemes, and utterances. In this respect two things should be emphasized. First, the syllable is the unit within which the relations between distinctive features of phonemes and their acoustic correlates are revealed. Second, within a syllable (or syllables) prosodic characteristics of speech are realized, which form the stress pattern of a word and the intonation structure of an utterance. In sum, the syllable is a specific minimal structure of both segmental and suprasegmental features.

The other function is distinctive one. In this respect the syllable is characterized by its ability to differentiate words and word-forms. One minimal pair has been

found in English to illustrate the word distinctive function in the syllabic: *nitrate* — *night-rate*. There analogical distinction between word combinations can be illustrated by many more examples: *an aim* - *a name*; *an ice house* - *a nice house*, etc. Sometimes the difference in syllable division may be the basic ground for differentiation in such pairs as *I saw her rise* - *I saw her eyes*; *I saw the meat* — *I saw them eat*

Languages may differ in all these aspects of word accent.

We have discussed word stress's in a language performs three functions:

1. Word stress constitutes a word, it organizes the syllables of a word into a language unit having a definite accentual structure, that is a pattern of relationship among the syllables; a word does not exist without the word stress. Thus the word stress performs the constitutive function. Sound continuum becomes a phrase when it is divided into units organized by word stress into words.

2. Word stress enables a person to identify a succession of syllables as a definite accentual pattern of a word. This function of word stress is known as identificatory (унего-так-влекции) (or recognitive). Correct accentuation helps the listener to make the process of communication easier, whereas the distorted accentual pattern of words, misplaced word stresses prevent normal understanding.

3. Word stress alone is capable of differentiating the meaning of words or their forms, thus performing its distinctive function. The accentual patterns of words or the degrees of word stress and their positions form oppositions, e.g. *'import* — *im'port*, *'bellow* — *below*.

1. The prefix and the root: *maga'zine*;
2. The root and the suffix: *hospi'tality*;
3. The prefix and the suffix: *disorganization*.

D. Crystal distinguishes the following functions of intonation.

- Emotional function's most obvious role is to express attitudinal meaning -sarcasm, surprise, reserve, impatience, delight, shock, anger, interest, and thousands of other semantic nuances.

- Grammatical function helps to identify grammatical structure in speech, performing a role similar to punctuation. Units such as clause and sentence often depend on intonation for their spoken identity, and several specific contrasts, such as question/statement, make systematic use of it.

- Informational function helps draw attention to what meaning is given and what is new in an utterance. The word carrying the most prominent tone in a contour signals the part of an utterance that the speaker is treating as new information.

- Textual function helps larger units of meaning than the sentence to contrast and cohere. In radio news-reading, paragraphs of information can be shaped through the use of pitch. In sports commentary, changes in prosody reflect the progress of the action.

- Psychological function helps us to organize speech into units that are easier to perceive and memorize. Most people would find a sequence of numbers, for example, difficult to recall. The task is made easier by using intonation to chunk the sequence into two units.

- Indexical function, along with other prosodic features, is an important marker of personal or social identity. Lawyers, preachers, newscasters, sports commentators, army sergeants, and several other occupations are readily identified through their distinctive prosody.

According to R. Kingdon the most important nuclear tones in English are: Low Fall, High Fall, Low Rise, High Rise, and Fall-Rise.

According to D. Crystal, there are nine ways of saying *Yes* as an answer to the question *Will you marry me?*

1. Low fall. The most neutral tone; a detached, unemotional statement of fact.
2. Full fall. Emotionally involved; the higher the onset of the tone, the more involved the speaker; choice of emotion (surprise, excitement, irritation) depends on the speaker's facial expression.
3. Mid fall. Routine, uncommitted comment; detached and unexcited.
4. Low rise. Facial expression important; with a 'happy' face, the tone is sympathetic and friendly; with a 'grim' face, it is guarded and ominous.
5. Full rise. Emotionally involved, often «disbelief or shock, the extent of the emotion depending on the width of the tone.
6. High rise. Mild query or puzzlement; often used in echoing what has just been said.
7. Level. Bored, sarcastic, ironic.
8. Fall-rise. A strongly emotional tone; a straight or 'negative' face conveys uncertainty, doubt, or tentativeness; a positive face conveys encouragement or urgency.
9. Rise-fall. Strong emotional involvement; depending on the face, the attitude might be delighted, challenging, or complacent.

We may distinguish the following three kinds of pauses:

1. Short pauses which may be used to separate intonation groups within a phrase.
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Bibliography

1. I.A. Karimov Build the future by the hands.. T.: Uzbekistan. 1999.
2. I.A. Karimov "World (global) financial - economic crisis, way and measure on its overcoming in conditions of Uzbekistan" T., Uzbekistan., 2009
3. I.A.Karimov “ Yuksak ma’naviyat –yengilmas kuch”. Toshkent. Ma’naviyat, 2008.
4. I.A.Karimov “Barkamol avlod orzusi”. Toshkent. Sharq, 1999.
5. I. A.Karimov “Kelajakka sarmoya ” Toshkent, -O’zbekiston, 2000.
6. I.A. Karimov “Чет тилларини ўрганишни янада такомиллаштириш чора-тадбирлари” тўғрисидаги қарори. "Халқ сўзи" газетаси 2012 йил декабр сони.
7. доц. С.А. Солижонов “Назарий фонетика ”фанидан ўқув методик мажмуа. Тошкент 2008.
8. Швейцер А.Д. Перевод и лингвистика. Moscow. 1973.
9. М.А.Sokolova “English Phonetics- A Theoretical Course” Moscow. 1996
10. V.A.Vassilyev “English Phonetics” Moscow 1970
11. A.A.Garntzeva, A.A.Abdualazizov “English Phonetics” Toshkent.O`qituvchi 1972
12. Abdulazizov A. A. “English phonetics theoretical course” Tashkent Musiqi 2007.
13. Abdulazizov A. A. “English phonetics theoretical course” Tashkent 2003.
14. Bolinger, D. 1968. *Aspects of Language*. New York: Harcourt Brace Jovanovich.
15. Brazil, D. & M. Coulthart, C. Johns 1980. *Discourse Intonation and Language Teaching*. Harlow (Essex): Longman.
16. Brown, G. 1977. *Listening to Spoken English*. Harlow (Essex): Longman.
17. Coulthard, M. 1977. *An introduction to Discourse Analysis*. Harlow (Essex): Longman.
18. Cruttenden, A. 1986. *Intonation*. Cambridge: CambridgeUniversity Press.
19. Crystal, D, 1969. *Prosodic Systems and Intonation in English*. Cambridge: CambridgeUniversityPress.
20. Dickerson, W. B. 1989. *Stress in the Speech Stream: The Rhythm of Spoken English*. Urbana: UniversityofIllinoisPress.
21. Halliday, M. A. K. 1967. *Intonation and Grammar in British English*. TheHague: Mouton.
22. Kenworthy, J. 1987. *Teaching English Pronunciation*. London: Longman.
23. Ladefoged, P.1982 (1975). *A Course in Phonetics*. NewYork: HarcourtJovanovich.
24. Levis, M. K 1999. Intonation in Theory and Practice, Revisited. *TESOL Quarterly*, 3: 37-63

25. O'Connor, J.D. & G. K Arnold. 1973. *Intonation of Colloquial English*. London: Longman.
26. Pennington, M. C. 1996. *Phonology in English Language Teaching*. London: Longman.
27. Roach, P. 1983. *English Phonetics and Phonology: A Practical Coursebook*. Cambridge: Cambridge University Press.
28. Sakalova M. A. "Theoretical phonetics of Modern English" Moscow 1986.

Speech

Esteemed chairman of the attestation commission!

Esteemed members of the attestation commission!

First of all let me express my gratitude to all my teachers for the knowledge they have given me during the years of studies at the faculty and I'll try to do my best to justify their hopes.

My qualification paper consists of an introduction, 3 chapters, a conclusion and methodic recommendations, list of literature.

The problems of connected speech and unstressed vocalism in English
have always been the object of phonetic investigations in linguistics.

So my research work is devoted to the problems and analysis of the spoken form of the English language, the description of the features of speech sounds and their modifications, phonetic processes that happen with vowels and consonants.

It is known that in the speech continuum sounds are not pronounced separately. The final and initial phases of articulation of two neighboring sounds interpenetrate. So it is practically impossible to draw articulatory and consequently, acoustic boundaries between them. Sounds are the smallest phonetic units resulting from the linguistic analysis as representations of phonemes.

Several research studies have shown that connected speech instruction can help learners to more easily comprehend rapid speech used by native speakers.

Connected Speech is used to teach pronunciation and pronunciation is one of the most important aspects of learning a new language.

It is known that connected speech is closely connected with the nature of phonemes, the problems of changes of phonemes, their definition, allophones, functions and modifications.

The research made in the nature of connected speech and unstressed vocalism in English found the following characteristic features of the problem. The problem is closely connected with its two aspects:

- 1) The changes of phonemes in the language
- 2) Teaching pronunciation of words in connected speech

Having analyzed the problem and observing the literature on the problem the following conclusions can be formulated.

Connected speech is a phenomenon in spoken language that collectively includes the following phonological processes (phenomena):

1. Assimilation

a) **Progressive assimilation**

b) **Regressive assimilation**

c) **Reciprocal assimilation**

2. **Dissimilation**

3. **Elision**

4. **Delition**

5. **Accommodation**

6. **Liason**

7. **Epenthesis**

8. **Linking – R**

9. **Elongated consonants**

10. **Glottal stop**

11. **Aspiration**

12. **Palatalization**

13. **Reduction**

14. **Alternation**

15. **Vowel harmony**

In the qualification paper we tried to find out some typical features of these phonological phenomena and they are briefly formulated in the conclusion of the work.

The following are the main points investigated and concluded in this research work:

- Human speech can be broken down into units called sounds which can be put together to form syllables, words and utterances.
- . In the spoken form of the language speech sounds change their qualities, we observe modifications of both vowels and consonants.
- . The most wide-spread phonetic phenomena of connected speech are assimilation, elision, accommodation, aspiration, reduction, alternation.

In my qualification paper connected speech is defined as an “analysis of the continuous chains in normal spoken language and conversation as compared with the typical linguistic analysis of individual phonemes analyzed in isolation”. In other words, connected speech involves the phenomena in spoken language that collectively include those phonological processes such as reduction, elision, assimilation and so forth, connected speech makes up “a very real part” of the spoken language and occurs in “all levels of speech” from casual to even very formal levels. The naturally occurring speech of native speakers is mostly rapid and continuous with frequent

linking, sound alteration, or reduction at word boundaries, which may cause comprehension difficulty when non-native speakers listen to it.

Non-native speakers would find connected speech very different from what they would have normally heard before in language classrooms, where the speech from teachers and audio materials are typically carefully or slowly articulated. Thus understanding how connected speech functions in English could assist the learners in listening to English more easily.

Producing connected speech can be beneficial in many ways because it enables the speaker to not only improve his or her intelligibility by developing overall speech rhythm, but also brings psychological relief and confidence as it causes speech to sound more natural. Not using connected speech might even cause a non-native speaker's speech to sound unnatural and could bring about frustration to the listener.

The theme of the lecture: The nature of connected speech in English

The problems of connected speech in English have always been the object of phonetic investigations in linguistics and this lecture is devoted to the problems and analysis of the spoken form of the English language, the description of the features of speech sounds and their modifications, phonetic processes that happen with vowels and consonants.

It is known that in the speech continuum sounds are not pronounced separately. The final and initial phases of articulation of two neighbouring sounds interpenetrate. So it is practically impossible to draw articulatory and consequently, acoustic boundaries between them. Sounds are the smallest phonetic units resulting from the linguistic analysis as representations of phonemes.

Several research studies have shown that connected speech instruction can help learners to more easily comprehend rapid speech used by native speakers.

Connected Speech is used to teach pronunciation and pronunciation is one of the most important aspects of learning a new language.

It is known that connected speech is closely connected with the nature of phonemes, the problems of changes of phonemes, their definition, allophones, functions and modifications.

The problem is closely connected with its two aspects:

- 3) The changes of phonemes in the language
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- Human speech can be broken down into units called sounds which can be put together to form syllables, words and utterances.
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Assimilation takes place when a sound changes its character in order to become more like a neighbouring sound and is a common phonological process by which one sound becomes more like a nearby sound and can be synchronic— that is, an active process in a language at a given point in time— or diachronic, that is, a historical sound change.

Several **types of assimilation** can be recognized.

1. According to **the degree** the assimilating consonant takes on the characteristics of the neighbouring consonant, assimilation may be:

1) partial or 2) total.

2. A further classification is in terms of **the direction** in which the assimilation works. There are three possibilities:

Regressive assimilation: the sound changes due to the influence of the following sound, e.g. *ten bikes*. This is particularly common in English in alveolar consonants in word-final position

Progressive assimilation: the consonant changes because of the influence of the preceding consonant, e.g. *lunch score* articulated with [s] becoming [ʃ] under the influence of [tʃ]. But these assimilations are less common in English. They occur in some contractions, e.g. *it's, that's*.

Reciprocal assimilation is a type of reciprocal assimilation: the first consonant and the second consonant in a cluster fuse and mutually condition the creation of a third consonant with features from both original consonants. This assimilation occurs most frequently when final alveolar consonants [t], [d] are followed by initial palatal [j].

Dissimilation is a phenomenon whereby similar consonant or vowel sounds in a word become less similar. Dissimilation, like assimilation, may involve a change in pronunciation relative to a segment that is adjacent to the affected segment or at a distance, and may involve a change relative to a preceding or a following segment.

Elisions (elipsis or omission) is the omission of one or more sounds (such as a vowel, a consonant, or a whole syllable) in a word or phrase, producing a result that is easier for the speaker to pronounce, deletion of a sound in rapid or careless speech. The opposite of elision is **epenthesis**, whereby sounds are inserted into a word to ease pronunciation.

Epenthesis = inserting of a vowel or a consonant segment within an existing string of segments.

Deletion of the word-final [t] or [d] occurs in clusters of two consonants at a word boundary when the following word begins with a consonant: *Eas(t) side, blin(d) man, wil(d) boar*. However, when the following word begins with a vowel, there is no deletion.

Accommodation (adaptation) = modifications of consonant under the influence of the adjacent vowel or vice versa. **Lip position** may be affected by the accommodation, the interchange of consonant + vowel type. **Labialisation** of consonants is traced under the influence of the neighbouring back vowels (accommodation). **The position of the soft palate** is also involved in the accommodation.

Liaison = connecting of the final sound of one word or syllable to the initial sound of the next.

Linking r. In RP, and other non-rhotic accents, a word said in isolation never ends in [r]. Nevertheless, in connected speech an [r] may be pronounced in some cases if the next word begins with a vowel sound. This typically happens with a word (syllable) that ends in one of the vowels, when the following word (syllable) begins with a vowel sound.

Examples for Elongated consonants:

stop pushing [p:]

bad dog [d:]

short time [t:]

big gap [g:]

quick cure [k:]

less serious [s:]

A glottal stop, symbolized [ʔ], is a plosive made at the glottis by the vocal cords. It has several different functions in English. It is optionally used as a way of adding emphasis to a syllable that begins with

a vowel sound.

Reduction is the weakening of a sound due to a decrease in the tenseness of the speech organs resulting in the loss of some essential characteristics by the sound. Reduction is one of the phonetic changes taking place in the

historical development of a language. The final stage of this process of reduction is the dropping out of the sound (zero reduction).

Alternation. Vowel reduction occurs with varying degrees of stability. In some words, an unstressed vowel is never reduced, and in some it is always reduced, but in a large number the extent of reduction depends on how quickly or carefully the speaker enunciates the word. For example, the *o* in *obscene* may be pronounced either as full [o] or as reduced [ə], but the historical *o* sound in *gallon* is never a full vowel, no matter how carefully one enunciates.

The following list of examples presents the most common types of historical alternations.

1. Vowel Alternations

1. Distinction of irregular verbal forms:

[i: – e – e]: mean – meant – meant

[i – ʌ – ʌ]: dig – dug – dug.

[ai – ou – i]: write – wrote – written

[i – æ – ʌ]: sing – sang – sung

[εə – ɔ: – ɔ:]: wear – wore – worn

[ai – i – i]: hide – hid – hidden

[i: – ou – ou]: speak – spoke – spoken

[ou – u: – ou]: know – knew – known

[i – ei – i]: give – gave – given

[e – ɒ – ɒ]: get – got – got

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

[æ – u – u]: understand – understood – understood

[ei – u – ei]: take – took – taken

[ei – ou – ou]; wake – woke – woken

[u: – ɒ – ɒ]: shoot – shot – shot

[e – ou – ou]: tell – told – told

[i – æ – æ]: sit – sat – sat

[i – ɔ: – ɔ:]: think – thought – thought

[ʌ – ei – ʌ]: become – became – become

[ai – ou – i]: rise – rose – risen

[ou – u: – ou]: grow – grew – grown

[u: – ou – ou]: choose – chose – chosen

[ai – u: – ou]: fly – flew – flown

[ai – ɔ: – ɔ:]: fight – fought – fought

[ai – au – au]: find – found – found

[i: – ɔ: – i:]: see – saw – seen

[iə – ɜ: – ɜ:]: hear – heard – heard

and some other less common verbal alternations of this type.

2. Distinction of causal verbal forms:

[i – e]: sit – set

[ai – ei]: rise – raise

[ɔ: – e] fall – fell

3. Distinction of singular and plural forms of nouns:

[æ – e]: man – men

[u – i:]: foot – feet

[u: – i:]: tooth – teeth

[au – ai]: mouse – mice

[u – i]: woman – women

[ai – i]: child – children

4. Distinction of parts of speech in etymologically correlated words:

[i: – e]: feast – festive

[a: – æ]: class – classify

[ɒ – e]: long – length

[ɔ: – e]: broad – breadth

[ei – æ]: nation – national

[ai – i]: wise – wisdom

[ɒ – i:]: hot – heat

This type of alternation is often strengthened not only by suffixation but also by the shifting of stress like in: part– particular, 'climate – cli'matic.

2. Consonant Alternations

1. Distinction of irregular verbal forms:

[d – t]: send – sent, lend – lent

3. 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 – tʃ]: speak – speech

[t – s]: important – importance

4. Vowel + Consonant Alternations (often supported by suffixation and the shifting of stress)

[i – ai] + [v – f]: live – life

[a: – ei] + [θ – p]: bath – bathe

[e – i:] + [θ – p]: breath – breathe

[ɒ – u:] + [s – z]: loss – lose

Sound alternations are also widely spread on the synchronical level in the present-day English and are known as contextual. In connection with contextual sound alternations there arises a problem of phonemic identification of alternated sounds.

Vowel harmony is a type of [long-distance assimilatory phonological](#) process involving [vowels](#) that occurs in some languages. In languages with vowel harmony, there are constraints on which vowels may be found near each other.

In many languages, vowels can be said to belong to particular sets or classes, such as back vowels or rounded vowels. Some languages have more than one system of harmony. For instance, [Altaic languages](#) have a rounding harmony superimposed over a backness harmony.

Languages with vowel harmony: Uralic languages, Finnish, Hungarian, Estonian, Altaic languages, Mongolian, Tatar, Kazakh. Yokuts