L.V. Novikova

THE THEORETICAL PHONETICS

LECTURES

Vladimir 2015

Министерство образования и науки Российской Федерации

Федеральное государственное бюджетное образовательное учреждение высшего профессионального образования
«Владимирский государственный университет имени Александра Григорьевича и Николая Григорьевича Столетовых»

Л.В. Новикова

ТЕОРЕТИЧЕСКАЯ ФОНЕТИКА АНГЛИЙСКОГО ЯЗЫКА

Курс лекций на английском языке

Владимир 2015

Рецензент:
Кафедра «Русская и зарубежная филология»
Владимирского государственного университета
Доцент, кандидат педагогических наук

В.И. Горбатов

Новикова Л.В.,

ТЕОРЕТИЧЕСКАЯ ФОНЕТИКА АНГЛИЙСКОГО ЯЗЫКА
Курс лекций на английском языке.
Владим. гос. ун-т, Владимир, 2015. 67 с.

Курс лекций содержит краткое изложение основных проблем теоретической фонетики в форме сжатых конспектов лекций и включает такие темы, как место теоретической фонетики в системе учений о языке, ее компоненты, теория фонемы, структура слога, ударение и интонация в современном английском языке.

Курс включает восемь лекций, где излагаются наиболее сложные проблемы, при изучении которых у студентов могут возникнуть определенные затруднения в понимании отдельных вопросов фонетики. Курс не претендует на полное освещение дидактического материала по излагаемым вопросам.

Данные лекции помогут студентам ознакомиться с наиболее важными разделами фонетики, с тем, чтобы на основе приобретенных знаний они смогли бы углубленно изучать и другие программные разделы фонетики, изложенные в учебниках.

Рекомендовано для формирования профессиональных компетенций в соответствии с ФГОС 3-го поколения.

Библиогр.: 4 назв.

Предназначено в качестве основного материала на лекциях по теоретической фонетике для специальности 45.03.02 «Лингвистика» профиль подготовки «Перевод и переводоведение».

Владимирский государственный университет 2015

LECTURE 1. PHONETICS AS A BRANCH OF LINGSTICS

We begin our study of language by examining the inventory, structure and functions of the speech sounds. This branch of linguistics is called phonetics.

Phonetics is an independent branch of linguistics like lexicology or grammar. These linguistic sciences study language from three different points of view. Lexicology deals with the vocabulary of language, with the origin and development of words, with their meaning and word building. Grammar defines the rules governing the modification of words and the combination of words into sentences. Phonetics studies the outer form of language; its sound matter. The phonetician investigates the phonemes and their allophones, the syllabic structure the distribution of stress, and intonation. He is interested in the sounds that are produced by the human speech-organs insofar as these sounds have a role in language. Let us refer to this limited range of sounds as the phonic medium and to individual sounds within that range as speech-sounds. We may now define phonetics as the study of the phonic medium. Phonetics is the study of the way humans make, transmit, and receive speech sounds. Phonetics occupies itself with the study of the ways in which the sounds are organized into a system of units and the variation of the units in all types and styles of spoken language.

Phonetics is a basic branch of linguistics. Neither linguistic theory nor linguistic practice can do without phonetics. No kind of linguistic study can be made without constant consideration of the material on the expression level.

Phonetics is concerned with the sound component of communication.

The origin of the word is a Greek “phona” – a sound, a voice.

Phonetics is concerned with human noises, the way men may transmit and receive sounds in the process of communication.

We study only those sounds that bring organized information, i.e. meaningful sounds. They are the objects of the specific interest.

Analysis:

the nature |

the function | of a sound

the combination |

Phonetics is one of the fundamental branches of linguistic. It’s very important in the study of a language, because neither grammar nor lexics can exist without the phonetic form. All these phenomena are expressed phonetically. It follows from this that phonetics is a basic branch of linguistics. Neither linguistic theory nor the linguistic description can do without phonetics.

Phonetics was known to ancient Greeks, where the theory of public speech and phonetic delivery were important.

As an independent discipline has been known since the 19-th century. Most investigation was done in the 20-th century. Phonetics used to be a part of grammar. In the 20-th century phonetics has become VERY important.

1.1. The branches of Phonetics.

General phonetics – общая фонетика (studies phonetic laws, problems and principles in any language/ common of all phonetics/ general for any language)

Special phonetics – частная фонетика (English theoretical phonetics vs. Russian –||- and etc. Studies phonetics of a particular languages/ compares it to other languages). Our theme is English phonetics.

1.2. Subdivision according to the speech production:

We call it **the chain of events** which takes places when one person is speaking and the other one is listening.

The process of speech production is realized in the folowing scheme:

the message is formed and incoded in the brain of the speaker (linguistic/ psychological level)

it is transmitted to the organs of speech and some sounds are articulated (physiological stage)

the movement of the organs of speech produces sound waves (physical/ acoustic stage)

the sound waves are perceived, identified and decoded by the listener (*NB* stages 4 and 5 in the picture)

The reason is that each of these stages correlate to different branches of phonetics (is studied by a particular branch…):

articulation phonetics studies the mechanisms of speech production;

acoustic phonetics is concerned with the physical characteristics of speech sounds and uses special techniques to measure these sounds;

auditory phonetics studies the perception of speech

the linguistic interpretation is given by phonology

Phonology studies the system of sounds units (фонетические единицы) and their function. Phonology is quite a controversial subject, because some schools think that it's a separate discipline. But we observe it as a part of Phonetics:

Phonetics stands for physical aspect, Phonology stands for the meaning of a word.

Phonetics focuses on the physical characteristic of a sound, and phonology – on its meaning.

1.3. The subdivision according to segments.

Phonetics studies:

- the sound system;
- syllabic structure;
- word-stress;
- intonation.

Segmental phonetics studies sounds, i.e. segments of speech.

Suprasegmental (сверхсегментная) phonetics studies bigger units of connected speech (words, phrases)

LECTURE 2. THE METHODS OF PHONETIC ANALYSIS

Each branch of phonetics uses its own method of investigation, which changes (develops):

- articulation phonetics uses method of direct observation, photography, cinematography, X-ray photography;
- in acoustic phonetics we use instrumental method. Two basic machines are called spectrograph and intonograph, nowadays computer software (programmes) is also used.
- in auditory phonetics we use methods of auditory/ perception analysis (marking the text).

Generally in phonetic research we combine different methods.

We distinguish between subjective, introspective methods of phonetic investigation and objective methods.

The oldest, simplest and most readily available method is the method of direct observation. This method consists in observing the movements and positions of one's own or other people's organs of speech in pronouncing various speech sounds, as well as in analyzing one's own kinaesthetic sensations during the articulation of speech sound in comparing them with auditory impressions.

Objective methods involve the use of various instrumental techniques (palatography, laryngoscopy, photography, cinematography, X-ray photography and cinematography and electromyography). This type of investigation together with direct observation is widely used in experimental phonetics. The objective methods and the subjective ones are

complementary and not opposite to one another. Nowadays we may use the up-to-date complex set to fix the articulatory parameters of speech - so called articulograph.

Acoustic phonetics comes close to studying physics and the tools used in this field enable the investigator to measure and analyze the movement of the air in the terms of acoustics. This generally means introducing a microphone into the speech chain, converting the air movement into corresponding electrical activity and analyzing (Ксень, это слово у Красы через «s», но, по-моему, тут «z») the result in terms of frequency of vibration and the amplitude of vibration in relation to time. The spectra of speech sounds are investigated by means of the apparatus called the sound spectrograph. Pitch as a component of intonation can be investigated by intonograph.

The acoustic aspect of speech sounds is investigated not only with the help of sound-analyzing techniques, but also by means of speech-synthesizing devices.

2.1. Connection with other sciences.

We know that the phonic medium can be studied from four points of view: the articulatory, the acoustic, the auditory, and the functional.

We may consider the branches of phonetics according to these aspects. Articulatory phonetics is the study of the way the vocal organs are used to produce speech sounds. Acoustic phonetics is the study of the physical properties of speech sounds. Auditory phonetics is the study of the way people perceive speech sounds. Of these three branches of phonetics, the longest established, and until recently the most highly developed, is

articulatory phonetics. For this reason, most of terms used by linguists to refer to speech-sounds are articulatory in origin.

Phoneticians are also interested in the way in which sound phenomena function in a particular language. In other words, they study the abstract side of the sounds of language. The branch of phonetics concerned with the study of the functional (linguistic) aspect of speech sounds is called phonology. By contrast with phonetics, which studies all possible sounds that the human vocal apparatus can make, phonology studies only those contrasts in sound which make differences of meaning within language.

Besides the four branches of phonetics described above, there are other divisions of the science. We may speak of general phonetics and the phonetics of a particular language (special or descriptive phonetics). General phonetics studies all the sound-producing possibilities of the human speech apparatus and the ways they are used for purpose of communication. The phonetics of a particular language studies the contemporary phonetic system of the particular language, i.e. the system of its pronunciation, and gives a description of all the phonetic units of the language. Descriptive phonetics is based on general phonetics.

Linguists distinguish also historical phonetics whose aim is to trace and establish the successive changes in the phonetic system of a given language (or a language family) at different stages of its development. Historical phonetics is a part of the history of language.

Closely connected with historical phonetics is comparative phonetics whose aims are to study the correlation between the phonetic systems of

two or more languages and find out the correspondences between the speech sounds of kindred languages.

Phonetics can also be theoretical and practical. At the faculties of Foreign Languages in this country, two courses are introduced:

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

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

This dichotomy is that which holds between theoretical and applied linguists. Briefly, theoretical linguistics studies language with a view to constructing theory of its structure and functions and without regard to any practical applications that the investigation of language might have. Applied linguistics has as its concerns the application of the concepts and findings of linguistics to a variety of practical tasks, including language teaching.

All the branches of phonetics are closely connected not only with one another but also with other branches of linguistics. This connection is determined by the fact that language is a system whose components are inseparably connected with one another.

Phonetics is also connected with many other sciences. Acoustic phonetics is connected with physics and mathematics. Articulatory phonetics is connected with physiology, anatomy, and anthropology. Historical phonetics is connected with general history of the people whose language is studied; it is also connected with archaeology. Phonology is connected with communication (information) theory, mathematics, and statistics.

Which sciences are connected with phonetics?

medicine

physics

psychology (pshychophonetics)

linguistics

rytorics

mathematics, statistics, computer technologies

2.2 Phonetics and Social Sciences

Language is not an isolated phenomenon, it's a part of society. The use of language and pronunciation in particular is determined by the social context (situation).

Sociophonetics studies the way language functions in social context. The social features/ factors we are interested in:

regional/ geographical factor

the age of the speaker

gender

social status

sphere of communication

Phonetics is necessary in:

linguistics

communication engineering

foreign language teaching

rhetorical training (эффективная коммуникация)

speech posology treatment Communication Technology (Criminal Law)

LECTURE 3. THE PHONEME THEORY

Segmental phonetics – the linguistic function of individual sounds or segments of speech.

[let] apical alveolar fortis [l]

[led] apical alveolar lenis [d]

[let them] dental [t] (assimilation)

are different in one feature, but the contrast between first 2 sounds changes the meaning.

The contrast between 1 and 3 sounds has no functional significance because it doesn't change the meaning.

In our speech we are not aware of sounds differences which don't change the meaning.

2 terms: a phoneme and an allophone

a phoneme – is a sound in its contrasting position (capable of distinguishing the meaning of a word)

an allophone – is a representation of a phoneme in a particular position/ context.

[let] – [led] phonemes

[let] - [let them] allophones

The phoneme is a minimal abstract language unit realized in speech in the ofrm of speech sounds opposable to other phonemes of the same language to distinguish the meaning of morphemes and words (by Shcerba + Vasiliev).

3 aspects of the phoneme:

1) material;

2) abstract (generalized);

Function

Let us consider the English phoneme [d]. It is occlusive, forelingual, apical, alveolar, lenis consonant. 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 principal allophone. The allophones which do not undergo any distinguishable changes in speech are called principal.

Allophones that occur under influence of the neighboring sounds in different phonetic situations are called subsidiary, e.g.:

a. *deal, did* - it is slightly palatalized before front vowels

b. *bad pain, bedtime* - it is pronounced without any plosion

c. *sudden, admit* - it is pronounced with nasal plosion before [n], [m]

d. *dry* - it becomes post-alveolar followed by [r].

If we consider the production of the allophones of the phoneme above we will find out that they possess three articulatory features in common - all of them are forelingual lenis stops. Consequently, though allophones of the same phoneme possess similar articulatory features they may frequently show considerable phonetic differences.

Native speakers do not observe the difference between the allophones of the same phoneme. At the same time they realize that allophones of each phoneme possess a bundle of distinctive features that makes this phoneme functionally different from all other phonemes of the language. This functionally relevant bundle is called the invariant of the

phoneme. All the allophones of the phoneme [d] instance, are occlusive, forelingual, lenis. If occlusive articulation is changed for constrictive one [d] will be replaced by [z]: e. g. *breed - breeze, deal — zeal,* the articulatory features which form the invariant of the phoneme are called distinctive or relevant.

To extract relevant features of the phoneme we have to oppose it to some other phoneme in the phonetic context.

If the opposed sounds differ in one articulatory feature and this difference brings about changes in the meaning this feature is called relevant: for example, port — *court,* [p] and [k] are consonants, occlusive, fortis; the only difference being that [p] is labial and [t] is lingual.

The articulatory features which do not serve to distinguish meaning are called non-distinctive, irrelevant or redundant. For example, it is impossible to oppose an aspirated [p^h] to a non-aspirated one in the same phonetic context to distinguish meaning.

We know that anyone who studies a foreign language makes mistakes in the articulation of sounds. L.V. Shcherba classifies the pronunciation errors as phonological and phonetic. If an allophone is replaced by an allophone of a different phoneme the mistake is called phonological. If an allophone of the phoneme is replaced by another allophone of the same phoneme the mistake is called phonetic.

The material aspect.

Each phoneme is realized in speech as a set of predictable (=depended on the context) speech sounds which are called allophones.

phoneme [t]

[to:k] apical alveolar [t] |

[tip] slightly palatalized [t] |

[not there] dental [t] | allophones

[not kwait] loss of plosion |

[trai] post-alveolar [t] |

[stei] not aspirated [t] |

The requirements to the allophones of the same phoneme:

they poses similar articulating feature, but at the same time they can show considerable phonetic differences.

they never occur in the same phonetic context

they are not capable of differentiating the meaning

2 types of allophones: principal and subsidiary

Principal are the allophones which don't undergo any changes in the flow of speech => they are the closest to the phoneme) Ex: [t] -> [to:k]

In the articulation of a subsidiary allophone we observe predictable changes under the influence of the phonetic context.

Ex: [d] – occlusive plosive stop, forelingual, apical-alveolar, voiced lenis (the phoneme)

[do:], [dog] – the principal allophones

[d] is slightly palatalized before front vowels and [j]: [ded], [did ju:]

without plosion before another stop: [gud dei], [bad pain]

with nasal plosion before nasal sonorants [m], [n]: ['s^nd]

before [l] a literal plosion: [midl]

followed by "r" – [pst alveolar [d]: [dr^m]

before interdental sounds it becomes dental: [bredth]

when followed by [w] it becomes labialized: [dwel]

in word final position it's partly devoiced: [ded]

They are all fore-lingual lenis stops, but they show some differences. The allophones of the same phoneme never occur in the same phonetic context.

We can't pronounce a phoneme, we pronounce allophones, which are accompanied by several social and personal characteristics. The actual pronounced sounds which we hear are formed with stylistic, situational, personal and etc. characteristics. They are called phones.

The Abstract aspect

The phoneme is a minimal language unit.

The phoneme belongs to the language, the allophone – to the speech.

Language is an abstract category, it's an abstraction from speech. Speech is the reality of a language, thus the phoneme as a language unit is materialized in speech sound. The phoneme is a sort of generalization (abstraction).

The process of generalization.

The native speaker doesn't pay attention to the allophones which don't change the meaning. But every native speaker has a generalized idea of a complex of distinctive features that can't be changed without changing the meaning.

The features which can't be changed without a change of meaning are called relevant (or distinctive)

The invariant of a phoneme – a native speaker's generalized variants. The invariant of a phoneme is a bundle of its distinctive features.

The functional aspect

.. to dinstinguish the meanings. Phonemes are capable of distinguishing the meaning of words and morphemes: seem<u>ed</u> [d] ⇔ see<u>ms</u> [z]

and changing the meanings of whole sentences:

Ex: He was <u>heard</u> badly. – He was <u>hurt</u> badly.

There is no room for you in my <u>hut</u>. – There is no room for you in my <u>heart</u>.

This function is performed when the phoneme is opposed to another phoneme in the same phonetic context: [ka:t] – [pa:t]

backlingual bilabial (relevant features)

The features that do not effect the meaning are called irrelevant features (non-distinctive). Ex: aspiration.

Distinctive features for English consonants:

place of articulation;

manner of articulation;

absence/ presence of voice

Distinctive features for English vowels:

the vowel quality: [sit] – [si:t]

monothong	dipthongoid
(front-retractive)	(front)

Phonetic and Phonological Mistakes:

If an allophone of some phoneme is replaced by an allophone of a different phoneme – the mistake is phonological.

If an allophone of some phoneme is replaced by another allophone of the same phoneme – the mistake is called phonetic.

The phoneme is a unity of 3 aspects: material, abstract and function.

LECTURE 4.TRANSCRIPTION AND PHONETIC NOTATIONS

Transcription is a set of symbols which represents sounds in written form.

There is an organization called IPA (International Phonetic Assosiation), and it worked out the system of symbols universal internationally: International Phonetic Alphabet (IPA).

There are 2 types of transcription: broad and narrow.

The broad variant is (*called*) phonemic and provides symbols for the phonemes. It's used in teaching.

The narrow variant is (*called*) allophonic and provides symbols for the allophones, mainly used in phonetic research: [p^h] – aspiration, seemed – [d^o] partly devoiced.

There are 2 types of broad transcription: by D.Jones and by Vasiliev.

By D.Jones: uses the same symbols for short and long vowels (he focused on the length, but it's a non-distinctive feature).

By Vasiliev: uses special symbols for all vowel phonemes.

Phoneme Theory. Part II

Main trends in the phoneme theory. The history of investigation.

The phoneme is one of the basic language units. However, by different linguistic schools it's very differently described.

The history of phonological studies.

The idea of distinguishing between the functional approach to the study of speech sounds and their material substance was first expressed by the Russian linguist Ivan Alexandrovich Бодуэн-де-Куртене (he is the founder).

in the 20-30s of the 20th century a number of phonological conceptions appeared in different countries.

Nickolai Trubetskoy (Prague Linguistic Circle)

Roman Jakobson (-||-)

The theory of these two linguists formed the classical phonology (in Europe).

in the USA at the same time the familiar theories appeared.

There were 2 famous schools in Russia: Leningrad School (Scherba, *his follower* Зиндер, Бондаренко - *woman*) and Moscow School (Avanesov, Кузнецов, Реформатский).

Among American linguists: E. Sapir – classical phonology.

All these theories are classical, traditional, static (description, classificatory character).

In the 60s of the 20th century New Phonology appeared. It was aimed to explain how speech was actually produced and understood.

This New Phonology is known as generative phonology.

N. Chomsky (an American linguist)

They tried to create dynamic models, which were aimed at establishing the sound pattern of a sentence on the basis of its semantic and grammar characteristics.

The main criterion is the approach of different linguistics to the 3 aspects of the phoneme. Some linguists exaggerated the material aspect, some – the abstract one and etc.

3 Groups of Conceptions

1) includes the conception that pay special attention to the abstract aspect. This vie is called mentalistic or psychological. According to it, the phoneme is the ideal mental image, it doesn't exist objectively, it exists only in the mind of the speaker. Actual speech sounds are an imperfect realization of the phoneme. These ideas were expressed by Бодуэн-де-Куртене and later developed by Sapir and others.

2) functional group conception. Because special attention is given to the ability of the phoneme to differentiate the meaning. Scholars are particularly interested in distinctive features, while non-distinctive features are often ignored.

Trubetskoy, Jakobson and Bloomfield.

The greatest achievement of these scholars was that their theory gave rise to phonology as a linguistic discipline. However it resulted in the separation of phonetics and phonology. They claimed that only phonology was a linguistic discipline, while phonetics should belong to biology. The material aspect was ignored by this theory.

3) the material aspect is exaggerated. This approach is called physical and is represented by D. Johnes and an American scholar B. Bloch. And they regarded the phoneme as the *family* of sounds, i.e. the phoneme is a mechanical sum of its allophones. So, similarity between sounds is considered to be the main criterion for attributing them to a particular phoneme. They ignored abstract and functional aspects.

It also demonstrates, that Scherba's definition is comprehensive, because it gives equal importance to each of the aspects of the phoneme.

Methods of Phonological Analysis.

What is the aim of the phonological analysis?

Firstly, the aim of it is to establish distinctive differences between sounds, i.e. to establish relevant features.

Secondly, on the basis of this study to create the inventory of the phonemes (*the phones?*) and establish the phonemic system of a language.

The final aim of phonological analysis is the identification of the phonemes and their classification.

There are **2 main approaches**:

1) formally distributional

It is practiced by American structuralists and it pays special attention to the position of the sound in the word or its distribution;

2) semantically distribution (sematic)

It gives special attention to meaning, it's wildly practiced in this country.

The analysis is conducted through the system of phonological oppositions. It's based on the following rule:

the phoneme can distinguish meaning when opposed to one another in the same phonetic context. Ex: [dei] – [thei], [ship] – [sheep] (minimal pairs)

To establish the phonemic status of a sound it is necessary to oppose one sound to another in the same phonetic context.

This procedure is called **commutation test**. We must find the so-called minimal pairs. A **minimal pair** is a pair of words which differ in once sound only. So we replace one sound by another and try to see if the meaning is the same or different and if the sound belongs to one or different phoneme.

Ex: [pin] – [sin] (1)

[p^hin] – [pin] (2)

[pin] – [hin] (3)

The commutation test may have **3 results**:

(1) the meaning is different, so the opposed sounds belong to different phoneme;

(2) the meaning is the same, so the opposed sounds belong to the same phoneme;

(3) a meaningless word, so we can't make any conclusion – we can't identificate the sound

There are **different types of oppositions**:

1) single

the opposed sounds differ in one articulating feature only: [pen] – [ben]

voiceless voiced

2) double

the opposed sounds differ in 2 distinctive features : [pen] - [den]

bilabial forelingual

voiceless voiced

3) triple (multiple)

the opposed sounds differ in 3 distinctive features: [pen] - [then]

voiceless voiced

bilabial interdental

occlusive stop constrictive fricative

To create the system of phonemes the sounds are opposed in 3 positions:

- initial
- middle
- final

There are **some problems** - sometimes sounds cannot be opposed:

Ex: [h] is never used in final position;

[n-носовое] is never in the initial position.

In such cases we rely on the knowledge of the native speaker and phonetic similarities or dissimilarities.

There is another interesting case. We have a number of different sounds occur in the same position and phonetic context but the meaning is unchanged. Ex: [калоши] – [галоши], [шкаф] – [шкап].

Such sounds are called **free variants**. The existence of free variants is explained by regional, stylistic and individual variations. Ex: city [‘sidi – ‘siti], letter [‘ledə – ‘letə]

The **semantic method** of phonological analysis is widely used and it helps to create the system of the sounds of a language.

The application of this method shows that the English language has 24 consonant phonemes and 20 vowel ones. They are grouped into classes according to the distinctive features.

In English the following **features are distinctive for consonants**:

- place of articulation;
- manner of articulation, type of obstruction;
- presence or absence of voice (force of articulation)

The **phonemic feature of vowels**:

- quality => 1) stability of articulation, + 2) tongue position (horizontal, vertical)

Lecture 5. THE FUNCTION OF QUANTITY AND QUALITY IN THE SYSTEM OF ENGLISH VOWELS.

There are two major classes of sounds traditionally distinguished in any language - consonants and vowels. The opposition "vowels vs. consonants" is a linguistic universal. 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, so on the perception level their integral characteristic is tone, not noise. In case of consonants various obstructions are made. So consonants are characterized by a complete, partial or intermittent blockage of the air passage. 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 characteristic.

Russian phoneticians classify consonants according to the following principles: i) degree of noise; ii) place of articulation; iii) manner of articulation; iv) position of the soft palate; v) force of articulation.

(I) There are few ways of seeing situation concerning the classification of English consonants. According to V.A. Vassilyev primary importance should be given to the type of obstruction and the manner of production noise. On this ground he distinguishes two large classes:

a) occlusive, in the production of which a complete obstruction is formed;

b) constrictive, in the production of which an incomplete obstruction is formed. Each of two classless is subdivided into noise consonants and sonorants.

Another point of view is shared by a group of Russian phoneticians. They suggest that the first and basic principle of classification should be the degree of noise. Such consideration leads to dividing English consonants into two general kinds: a) noise consonants; b) sonorants.

The term "degree of noise" belongs to auditory level of analysis. But there is an intrinsic connection between articulatory and auditory aspects of describing speech sounds. In this case the term of auditory aspect defines the characteristic more adequately.

Sonorants are sounds that differ greatly from other consonants. This is due to the fact that in their production 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. This peculiarity of articulation makes sonorants sound more like vowels than consonants. Acoustically sonorants are opposed to all other consonants because they are characterized by sharply defined formant structure and the total energy of most of them is very high.

There are no sonorants in the classifications suggested by British and American scholars. Daniel Jones and Henry A. Gleason, for example,

give separate groups of nasals [m, n, ŋ], the lateral [1] and semi-vowels, or glides [w, r, j (y)]. Bernard Bloch and George Trager besides nasals and lateral give trilled [r]. According to Russian phoneticians sonorants are considered to be consonants from articulatory, acoustic and phonological point of view.

(II) The place of articulation. This principle of consonant classification is rather universal. The only difference is that V.A. Vassilyev, G.P. Torsuev, O.I. Dikushina, A.C. Gimson give more detailed and precise enumerations of active organs of speech than H.A. Gleason, B. Bloch, G. Trager and others. There is, however, controversy about terming the active organs of speech. Thus, Russian phoneticians divide the tongue into the following parts: (1) front with the tip, (2) middle, and (3) back. Following L.V. Shcherba's terminology the front part of the tongue is subdivided into: (a) apical, (b) dorsal, (c) cacuminal and (d) retroflexed according to the position of the tip and the blade of the tongue in relation to the teeth ridge. A.C. Gimson's terms differ from those used by Russian phoneticians: apical is equivalent to forelingual; frontal is equivalent to mediolingual; dorsum is the whole upper area of the tongue. H.A. Gleason's terms in respect to the bulk of the tongue are: apex - the part of the tongue that lies at rest opposite the alveoli; front - the part of the tongue that lies at rest opposite the fore part of the palate; back, or dorsum - the part of the tongue that lies at rest opposite the velum or the back part of the palate.

(III) A.L. Trakhterov, G.P. Torsyev, V.A. Vassilyev and other Russian scholars consider the principle of classification according to the

manner of articulation to be one of the most important and classify consonants very accurately, logically and thoroughly. They suggest a classification from the point of view of the closure. It may be: (1) complete closure, then occlusive (stop or plosive) consonants are produced; (2) incomplete closure, then constrictive consonants are produced; (3) the combination of the two closures, then occlusive-constrictive consonants, or affricates, are produced; (4) intermittent closure, then rolled, or trilled consonants are produced.

A.C. Gimson, H.A. Gleason, D. Jones and other foreign phoneticians include in the manner of noise production groups of lateral, nasals, and semivowels - subgroups of consonants which do not belong to a single class.

Russian phoneticians subdivide consonants into unicentral (pronounced with one focus) and bicentral (pronounced with two foci), according to the number of noise producing centers, or foci.

According to the shape of narrowing constrictive consonants and affricates are subdivided into sounds with flat narrowing and round narrowing.

(IV) According to the position of the soft palate all consonants are subdivided into oral and nasal. When the soft palate is raised oral consonants are produced; when the soft palate is lowered nasal consonants are produced.

(V) According to the force of articulation consonants may be fortis and lenis. This characteristic is connected with the work of the vocal cords: voiceless consonants are strong and voiced are weak.

Most Russian phoneticians think that quality is decisive. But some of the British ones don't. In Russian linguistics there is a principle that a feature can be systemic if it doesn't depend on the context. Ex: [bit] – [bi:t] (1) , [bit] – [bi:d] (2).

In the (1) example the vowels are practically the same in length, but the quality is different. In the (2) one there is some difference in length, but the difference in quality also remains, i.e. vowel quality is distinctive regardless of the position in the word.

Positional length of English vowels: [si:] – [si.d] – [si``t]

Morphology

Neutralization = weak position. Position can be weak or strong.

Phonological analysis is more difficult when the sound is in **weak position** or in the position of **neutralization**. This position means that some of the distinctive features are neutralized.

For consonants weak position in the word is the final position, or the position before other consonants.

For vowels it is the unstressed position.

Ex: зуб [зуп], activity [эk'tiviti]

This problem is tackled by the **morphology** (the problem of establishing of the phonemic status of speech sounds in weak positions). Its

special subject is the relations between the morphemes and phonemes. Morphology studies the way sound alternate as different realization of one and the same morpheme.

minimal pairs:

‘object [o] – ob’ject [э]

лук [к] – луг [г]

There exist 2 approaches/ schools that look at this question in different ways. The one is the **Moscow School**, Morphological school is represented by R.E. Avanesov, A.A. Reformatskiy, Kuznetsov, Panov. It’s clear from the name, that the fundamental idea of the school is the following:

1) the phoneme is the minimal component of the morpheme, which is a minimal meaningful language unit;

2) they claim, that the phonemic ‘content of the morpheme is constant.

In establishing the phonemic status of sounds they band their *phon. analysis* (for a vowel – stressed, for a consonant – before a stressed vowel) on the theory of strong and weak positions.

If we find a vowel in its strong position, we can establish the phonemic status of the sound (=проверить слово).

луг – луга

(ищем проверочное слово)

нож [ш] – ножи

вода [в^да] – воды [вОды]

con’duct – ‘conduct

Everything depends on the relations.

The supporters of this school view the phoneme as the functional phonetic unit represented by a sequence of positionally alternating sounds.

Ex: с

с Колей

с Тимой

с Галей [згал’эj]

с Шурой

It’s important to mention that according to this school the difference of the allophones of the same phoneme is not limited.

Leningrad School.

The second conception is that of the Leningrad School. The supporters are Scherba, Zinder. The main idea of the school is this:

the phonemic ‘content of the morpheme is not constant, it can change. As for the difference between the allophones of the same phoneme it is limited.

Ex:

‘object [о] – ob’ject [э], where [о]-[э] are different phonemes.

луг [k] – лук [к], where [k]-[k] are the same phoneme.

вода [^] – вОды [о]

According to this reasoning the phoneme can’t lose any of its distinctive features.

гриб [п] – грибы [б] – different phonemes.

Advantages and disadvantages of the approaches.

Arguments IN FAVOUR of **1 conception**:

1) phonetic changes are not separated from morphology thus the unity between form and ‘content is preserved. And the phonetic aspect is not isolated from the lexis and grammar ones.

2) it’s quite convincing that the allophones of the same phoneme can show considerable difference.

Arguments AGAINST it:

1) sometimes it’s impossible to find a strong position: к<u>о</u>рова, dec<u>о</u>rate.

2) sometimes the difference between the allophones of the same phoneme is too strong: у<u>х</u>о – у<u>ш</u>и, во<u>д</u>ит – во<u>ж</u>у.

Argument FOR **the second conception**:

1) it’s simplicity

its WEAK points:

1) it views phonology in isolation from morphology. The unity between content and form is destroyed.

2) it’s difficult to establish the limit within which the allophone of the same phoneme may vary: (*phonological function*) ме<u>л</u> (dark) – ме<u>ль</u> (clear) different phonemes, little [l] => [dark l] the same phoneme.

Moscow school is more effective in terms of teaching, because it gives an instrument for writing.

Lecture 6. SUPRASEGMENTAL PHONETICS

Intonation

Human communication isn't possible without intonation, because it's instrumental in conveying the meaning. No sentence can exist without a particular intonation.

Intonation (in linguistic terms) in Russian linguistics is viewed as a complex structure, a whole formed by significant variations in **pitch (высота тона), loudness and tempo.**

Some linguists also include voice **quality or timbre**.

At the moment we'll leave an open question and limit our analysis to the pitch, loudness and tempo.

American, British scholars identify pitch or melody *as* intonation, because pitch has a very important linguistic meaning.

There's another term widely used in phonetics. It's **Prosody**. Generally, in research the term intonation is applied to the analysis at phases while prosody covers a broader field from a syllable to a text.

We'll use them as synonyms.

The acoustic correlate of pitch is fundamental frequency. Loudness is intensity. Tempo – rate and pausation (time or duration).

Prosodic analysis is an undertaking.

Intonation is a language universal. It means that no language can exist without it.

Intonation Pattern *is* the basic unit of intonation.

The nucleus, the head, the pre-head, the tail.

The nucleus *has* the most significant change in pitch.

The function of Intonation Pattern is to actualize syntagms into **intonation groups**. (The **syntagm** is a group of words, semantically and syntactically complete)

I hope | you understand everything ||

An **actualized syntagm** is called an intonation group.

Functions of Intonation

Intonation is a powerful means of communication. It has a great potential for expressing ideas and emotions and it contributes to mutual understanding between people.

The main function of intonation is the communicative function.

This function includes 2 uses of intonation:

1) its ability to discriminate the meaning (distinctive function)
2) its ability to structure the text (organizing function)

Distinctive (Phonological) function

to prove that intonation is capable of differentiating the meaning we must make opposition of 2 phrases of identical syntactic structure and lexical composition, in which the difference in meaning is marked by intonation only.

What kinds of meaning can be differentiated:

1) the syntactic (communicative) types of sentences:

Isn’t it wonderful? (=a question)

Isn’t it wonderful! (=an interjection)

Will you stop talking (=a command)

Will you stop talking (=a request)

Only the change of nuclear tone can change the communicative type of a sentence.

It’s a lovely day. (=a statement)

It’s a lovely day (=an interjection)

It’s a lovely day? (=a question)

2) intonation is capable of distinguishing attitudinal meanings:

She’s passed the exam. (=reserved, uninterested)

She’s passed the exam. (lively interested)

She’s passed the exam. (impressed)

In this case not only the nuclear tone can differentiate the meaning, but the head also, as well as the pre-head. They all convey **attitudinal meaning**.

The fool. (=a fact)

The fool. (=very emotionally)

3) intonation can differentiate the meaning of the whole phrase (the actual meaning):

- Have you read this book?
- not once. (= ни разу)
- not once. (= ни один раз, много раз)

I don’t want you to read anything. (= because of your eyes)

I don’t want you to read anything. (= всякую ерунду)

The change of meaning can also be the result of the shift of centre stress (**different placement of nuclear tone**).

I have plans to leave (= у меня есть планы уехать)

I have plans to leave (= у меня есть документы, которые нужно оставить)

Phrasing can have (put) subdivision into intonation groups:

This I my teacher, Dc. Smith. (= познакомьтесь)

This is my teacher Dc. Smith. (=его зовут доктор Смит).

But still mainly it's the nuclear tone which can differentiate the meaning of the phrase. This function is sometimes called **semantic**.

By **organizing function** we mean the following:

1) the role of intonation in the process of integration and delimitation

2) -||- in structuring the information content of the text

All these processes take place simultaneously.

By **delimitation** we mean that intonation can divide the text into smaller units:

- phonopasseges;
- phrases;
- intonation groups.

Integration consists in organizing smaller units into bigger ones:

intonation groups -> into phrases -> into phonopasseges -> text.

Lecture 7. THE ROLE OF INTONATION IN CONVEYING THE INFORMATION ‘CONTENT OF THE TEXT.

Intonation can highlight the most important information, on the other hand it shows which information is known to the listener.

Peter went(given information, the theme) to Paris (= new information, the rhyme)

In most cases (80%) in English the last notional word has the nuclear tone. We call this position **unmarked** (=обычная), *sometimes – end-focus*.

Did Peter go to Paris?

No, Mark went to Paris. (it’s marked position of the tone).

Any part of speech can carry new information and take the focus position.

The book is not on the table, it’s in the table.

Intonation is also instrumental in **conveying shades of meaning**. It may be **in balance** with syntactic structure and lexical composition of an utterance, but it may also **neutralize** or even **contradict them**

Isn’t it ridiculous? (a question pronounced as a statement).

How very nice. (=negative).

This ability of intonation is often used to convey **irony**.

Lecture 8. THE PRAGMATIC FUNCTION OF INTONATION.

The important aspect of communication is influences the ideas, behavior and perception of the listener. The use of language means with the special purpose to influence people is studied by pragmatics.

Pragmatics has a special focus on the choice of language and secondly on producing *SOMETHING* of influence.

The pragmatic function of intonation consists in the use of intonation with a specific purpose. Intonation serves to actualize the speaker's pragmatic aim.

The choice of nuclear tones is attributed to the pragmatic function. A statement can be used as a request.

You're coming?

Come and help me?

The pragmatic function is realized when either the intellect or the emotions of the listener are effected. Intonation is capable o expressing a wide range of attitudinal and emotion meanings. Each nuclear tone and intonation pattern are linked with some particular attitudinal coloring:

The car is very expensive. (emotional, involved)

The car is very expensive. (indifferent, dispassionate)

Emphatic pauses are used to express emotions. **Variations in pitch, loudness and tempo** serve to make the utterance more expressive and they realize the pragmatic function.

Pragmatic function can be traced in all kinds of communication but admittedly it's especially relevant in declamatory style and public speaking. Sometimes the function is called rhetorical.

Besides conveying information the intonation is used to effect (impress) the listener and thus it performs the pragmatic function. It's obvious that not only what you say but how you say makes the communication effective.

The Social function of intonation

Intonation is an important indication of the social status of the individual, his/her social identity, social role. It's the indication of age, gender, higher rank, dominance.

According to **D. Crystal** there are some professions that are highly verbal: layers, preaches, teachers… They have distinctive prosody.

There is also the phonostylistic function.

Summing it all up:

all the particular functions are the realization of the main Communicative function.

Today in phonetic research scholars and learners of English don't look at intonation in isolation. They also consider the (linguistic and extralinguistic) context. We take into consideration the immediate context and the situation of context. We don't limit ourselves to stating the phonetic facts, we try to analyze and explain them.

Lecture 9. PROBLEMS OF PHONOSTYLISTICS.

The primary concern of linguistics is the study of language in use. It's particularly relevant for phonetic studies. We're interested in how the phonetic units are used in various social situation. It's the extra linguistic situation that influences our choice of language means.

There's a special branch of linguistics that studies the way language means function in different situation. It's called functional stylistics. It's primary concern is functional style – a set of language means used in a particular situation.

Phonostylistics is the study of the way phonetic units, both segmental (sounds) and suprasegmental (intonation), are used in a particular extralinguistic situation.

Extralinguistic situation consists of 3 components:

1) the purpose;

It's the most important factor that guides the communication. The purpose is what you want to achieve (to get/give information, to instruct, to entertain, to chat). The aim is very important as far as pronunciation is concerned.

The subject matters less important but it stil matters.

This factor can bring numerous variations in pronunciation which are determined both by individual characteristics of the speaker and the character of their relationship.

We must consider individual and socio-cultural features: the social status, social group or class the speaker belongs to.

2) participants

Another important aspect is the character of participant relationship which is reflected in the tenor (тональность) of discourse: formal/ informal, friendly/ unfriendly, SOMETHING and it effects greatly the choice of linguistic means.

The social roles of the speaker are also important. We have authority subordination relationship (teacher – pupil)

3) scene/ setting

This component has several factors:

- physical orientations of the participants (the distance between people, proximics studies it)

Setting can be also described in the following terms: public/ non-public, formal/ informal, monoloquing/ poliloguing, dialoguing.

It also includes the cannel of communication: face to face, public presentation, telephone, mass media. (*аксиальное – радиальное*)

All the components of extralinguistic situation influence the choice of linguistic means.

9.1. The Classification of Phonetic Styles:

1. **Gaiduchic** (correlates with functional styles of language)
    1) solemn (торжественный)
    2) scientific business (научно-деловой)
    3) official business (официально-деловой)
    4) everyday (бытовой)
    5) familiar (непринуждённый)

2. **Dubovsky** (degrees of formality)
    1) informal ordinary
    2) formal neutral
    3) formal official
    4) informal familiar
    5) declamatory
3. **Ours** (the purpose of communication)
    1) informational
    2) academic
    3) publicistic
    4) declamatory
    5) conversational

Intonational Styles

The factors that determine the phonostylistic varieties of intonation *in* spoken discourse.

Extralinguistic situations

purpose participants setting

the aim of communication (the style-forming factor)

Style-modifying factors:

- speaker's attitude
- the form of communication
- the degree of formality

- the degree of spontaneity

The factors are interdependent and interconnected.

The aim of communication is the main strategy of the speaker. We may want: to inform, to instruct, to convince, to entertain, to advertise.

In each case we choose intonation which will serve our purpose and make our speech effective.

It basically determines the choice of intonation means, thus it forms the style (style-forming).

Speaker's attitude

Any oral communication reflects a variety of attitudes and emotions, concerning the listener, the subject matter and etc.

Intonation varieties are as numerous as varieties of attitudes and emotions are. The speaker can be involved/ indifferent, friendly/ hostile and so on.

It's both emotions and attitudes we should take into consideration.

The form of communication

- monologuing
- dialoguing

Monologuing is speaking of 1 individual, **dialoguing** presupposes the participance of the speaker.

Monologues are usually more extended and characterized by a greater SOMETHING and grammatical cohesion (связанность). They are better organized.

Polyloquing can be singled out.

The Degree of formality.

Discourse

formal informal

It reflects social roles and relations of the participants.

In a formal situation the speaker tends to make his speech more distinct and precise while in informal situation speech is more careless and rapid.

Rapid colloquial speech (assimilations, reductions…)

The Degree of Spontaneity

The types of speech

prepared half-prepared spontaneous

Spontaneous speech takes place when verbal formation is simultaneous to the formation of the idea in the speaker's mind.

Half-prepared speech

Full prepared – written and rehearsed in advance.

All these factors determine the choice of particular intonation means which can be attributed to particular intonational style and phonetic style.

An intonational style is a system of interrelated intonation means which is used in a social sphere and serves a definite aim of communication (Sokolova and others).

There exist different classifications of different styles. Different schools choose different extra-linguistic factors as style-forming ones.

pr. Dubovsky determinates 5 styles according to the degree of formality:

- informal-ordinary
- formal-neutral
- formal-official
- informal-familiar
- declamatory

There is another classification given by **Gaiduchic** (according to the spheres of communication):

- solemn
- scientific business
- official business
- everyday
- familiar

We distinguish 5 styles (aim of communication):

- informational
- academic
- declamatory
- publicistic
- conversational

9.2. Informational Style

usage: Mass Media, business communication, classroom teaching.

The aim is to convey information. There's little personal involvement. The speaker is detached.

The typical intonation patterns are: Falling/ Mid-level Head + Low Fall/ Low Rise/ Mid-level tone.

The pitch level is generally medium or low and the pitch range is from medium to narrow. The tempo is not greatly varied. *Hesitation pauses*.

Academic Style:

is used in lecturing talk and conferences, academic discussion.

The aim is to convey information and to instruct (volitional function). *A pragmatic aim*.

Falling Head/ High Head + High Fall/ Fall-Rise(=referring).

Compound: Rise-Fall. The levels are high or medium. The ranger

Short intonation groups predominate. The tempo is greatly varied. Emphatic pauses are often used. Loudness is rather high.

Publicistic style

political speech, sermons, debates.

Declamotary style

on the stage, reciting literary texts.

Conversational style – everyday communication**.**

It’s important to have some expertise in phonostylistics because if your neglect stylistic modifications of intonation your speech will not be adequately perceived and you may have problems in perceiving.

Intonation and non-verbal means of communication.

In oral communication non-verbal means are very important.

When we communicate we choose appropriate language means to convey the message but at the same time our verbal message is accompanied by a non-verbal display. It’s believed that 25% of communication is conveyed by non-verbal means.

Lecture 10. THE NON-VERBAL MEANS:

- facial expressions
- gestures
- postures

Our faces can demonstrate a wide range of expressions, especially when our speech is emotionally colored:

the widening of the eyes. | interest and

the parting of the lips | excitement

Gestures involve the movements of the eyes, *foot*, *arms*, head.

By postures we mean special SOMETHING of the body.

These signals are called kinesic means. There is a special discipline – kinesics, which studies body language. There's proximics (a branch) which studies the distance between communication.

Kinesic means

conscious unconscious

imbalance with intonation and other language means may compencate them

Falling tone is often accompanied with a nod. But: silence (finger crossing the lips).

More commonly kinesic means intensify information conveyed by intonation.

A smile generally intensify positive feelings.

In public speaking it's very important.

1) it’s recommended to control your body language and to use it appropriately.

2) there are certain gestures that are typical of certain cultures:

Asian cultures suppress facial expressions.

British research the meaning of the head toss:

1) “come on”
2) antagonism
3) superiority
4) *quarrying (queering?)*
5) solution
6) rejection
7) direction

Сев. Европа – нет

Italy – other

BIBLIOGRAPHY

1. Buraya E.A. Phonetics For Modern English : book for students of Linguistics Schools. – 3-e Pub. – M. «Academy», 2009. - 272p.

2. Leontyeva S.Ph. Theory of English Phonetics . Book. M. High School . – 3-e Pub. – M.: « Manager», 2002. – 336 p.

3. Sokolova M.A. Theory of English Phonetics: book for students of High School / M.A. Sokolova, K.P. Gintovt. – 3-e Pub. – M.: Humanitarian Center VLADIOS, 2004. – 286 p.

4. Shevchenko T.I. Theory of English Phonetics. Book. M. High School, 2006. – 191p.

5. Vassilyev V.A. English Phonetics. – M.: Vysshaya Shkola, 1980.

6. Dichushina O. J. English Phonetics. – M.-L., 1965.

7. Abercombi David. Studies in Phonetics and Linguistics. – Oxford: OUP, 1965.

8. Ashby Michael et al. Introducing Phonetic Science. – Cambridge: CUP, 2005

9. Crystal David The Cambridge Encyclopedia of Language. – Cambridge: CUP, 1987.

10. Gimson A.C. An Introduction to the Pronunciation of English. – London: Edward Arnold, 1989.

11. Jones Daniel. English Pronouncing Dictionary. – Cambridge: CUP, 1997.

QUESTIONS FOR EXAM

1. Phonetics as a branch of linguistics. Phonetics and other disciplines. Applications of phonetics.

2. Branches of phonetics.

3. Aspects of the sound matter of language.

4. Components of the phonetic system of language.

5. National and regional pronunciation variants in English.

6. British and American pronunciation models.

7. Most distinctive features of BBC English and Network English.

8. The articulatory classification of English vowels.

9. The articulatory classification of English consonants.

10. Phoneme as many-sided dialectic unity of language. Types of allophones. Distinctive and irrelevant features of the phoneme.

11. Main phonological schools.

12. The system of vowel phonemes in English. Problem of diphthongs.

13. The system of consonant phonemes in English. Problem of affricates.

14. Modifications of English consonants and vowels in speech.

15. Alternations of speech sounds in English.

16. Theories on syllable division and formation.

17. The structure and functions of syllable in English.

18. Word stress in English.

19. Intonation and prosody: definition, functions, components, spheres of application.

20. The structure of English tone-group.

21. The phonological level of intonation.

22. Methods of phonetic analysis.

23. Phonostylistics. Types and styles of pronunciation in English.

24. Phonetics of the spoken discourse.