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THE UZBEK STATE WORLD LANGUAGES UNIVERSITY

I ENGLISH FACULTY

PHONETICS AS A BRANCH OF LINGUISTIC

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I. Introduction

This course paper is dedicated to the theme “Phonetics as a branch of linguistic”. The study of phonetics and phonetics as a branch of linguistic has always been one of the most interesting, disputable and important problems of theoretical phonetics of modern English. Phonetics is a field in linguistics that specializes in studying single sounds within language. Phonetics concerns itself with how the sounds are produced, how they sound to other listeners and how the brain perceives the sounds. Like all linguistic fields, phonetics studies all languages.

The main aim of the present course paper is to give information about phonetics and its contribution in linguistic.

The main aim of our present research puts forward the following tasks to fulfill:

-Articulatory phonetics is the study of how speech is made with the mouth, tongue and lungs.

-Acoustic phonetics is the study of how speech sounds acoustically, such as speech frequency and harmonics.

-Auditory phonetics is the study of how speech is perceived by the brain.

The main material of given course paper is taken from different books on theoretical and practical phonetics as such English Phonetics: a Theoretical Phonetics of Modern English (by Abduazizov A.A. T., '1986), a Theoretical Course. SEMINAR (by Sokolova M.A. and others. M., 1991), a Theoretical Course of English Phonetics (by Leontyeva S. F. M., 2002), a Theoretical Course (by Vassilyev V. A. M., 1970), a Pronunciation Theory of English (by Alimardanov R. A. T., 2009).

The theoretical value of the present course paper is that the theoretical part of the work can be used in delivering lectures on the Theoretical Phonetics of Modern English.

The practical value of the present course paper is that the practical results gained by investigating the giving problem may be used as examples or mini-tests in seminars and practical lessons of English Phonetics.

Structurally the present research work consists of four parts – Introduction, Main part, Conclusion and Bibliography.

II. Main part

1. PHONETICS AS A BRANCH OF LINGUISTICS

Language as “the most important means of human intercourse” exists in the material form of speech sounds. It cannot exist without being spoken. Oral speech is primary process of communication by means of language. Written speech is secondary; it presents what exists in oral speech.[[1]](#footnote-1)

Linguistic signals first said to be composed of some units, which are divided into significant and non - significant ones. The relationship between all the units or elements of a language includes different notions starting from sounds, morphemes, words, word combinations and ending up with phrases. The scientific study of a language involves an explanation of a mass of notions in terms of a rigorously organized and highly patterned system - the link between the units. The whole system of relation of linguistic units forms a system of a language. The character of a system, or the way this system works explain the structure of a language. All languages differ in systems and structures.

Phonetics is concerned with the human noises by which the thought is actualized or given audible shade: the nature of these noises, their combinations, and their functions in relation to the meaning. Phonetics studies the sound system of the language, that is segmental phonemes, word stress, syllabic structure and intonation.

It is primarily concerned with expression level. However, phonetics is obliged to take the content into consideration too, because at any stage of the analysis, a considerable part of the phonetician's concern is with the effect which the expression unit he is examining and its different characteristics have on meaning.

Only meaningful sound sequences are regarded as speech, and the science of phonetics, in principle at least, is concerned only with such sounds produced by a human vocal apparatus as are or may be earners of organized information of language.

Consequently, phonetics is important in the study of language. An understanding it is a prerequisite to any adequate understanding of the structure of working of language. No kind of linguistic study can be made with but consonant consideration of the material on the expression level.

It follows from this, that phonetics a basis brunch or fundamental brunch of linguistics, that is why phonetics claims to be of equal importance with grammar and lexicology. Phonetics has two main divisions: phonology, the Study of sound patterns of languages, of how a spoken language functions as a "code", and the study of substance, that carries the code. It shows that there is a close relationship between the language and thought. In modern linguistics this relationship is explained the terms of distinctions: substance and form. By the term "substance" we mean the material - carries of all the elements of a language and the term form" we mean linguistic concepts. Human speech is called the "phonic substance" in which linguistic forms are manifested. The speech may be either oral or written. The term "phonetics" comes - from the Greek word "pho:n" - meaning sound, voice and "-tica" - a science. So, phonetics is a special science which studies the phonetic substance and expressions area of the language. The linguistic form and content are described by other brunches of linguistics, namely grammar (morphology and syntax) lexicology (vocabulary, the formation and the meaning of the words) and stylistics (expressive - emotional meaning). Human speech is the result of a highly complicated series of events. The formation of the concept takes place at a linguistic level, that is in the brain of the speaker;

This stage may be called psychological. The message formed within the brain 1s transmitted along the nervous system to the speech organs. Therefore we may say that the human brain controls the behaviour of the articulating organs which effects in producing a particular pattern of speech sounds. This second stage may be called physiology cat. 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 1 i n g u i s t i c interpretation of the information conveyed.[[2]](#footnote-2)

In accordance with their linguistic function the organs of speech may be grouped as follows: - The repertory or power mechanism furnishes the flow or the air which is the first requisite for the production of speech sounds. This mechanism is formed by the lungs, the wind pipe and the bronchi. The energy which is regulated by the power mechanism. Regulating the force of the air - wave the lungs produce variations in the intensity of speech sounds. Syllabic pulses and dynamic stress are directly related to the behavior of the muscles which activate this mechanism.

From the lungs through the wind - pipe the air - stream passes to the upper stages of the vocal tract. First of all it passes to the larynx containing the vocal cords.

The function of the vocal cords consists in their role as a vibrator set in motion by the air - stream sent by the lungs. At least two actions of the vocal cords as a vibrator should be mentioned.

The opening between the vocal cords is known as the glottis.

The most important speech function of the vocal cords is their role in the production of voice. The effect of voice is achieved when the vocal cords are brought together and vibrate when subjected to the pressure of the air - passing from the lungs. This vibration is caused by compressed air forcing an opening of the glottis and the following reduced air - pressure permitting the vocal cords to come together.

The height of the speaking voice depends on the frequency of the vibrations.

The more frequently the vocal cords vibrate the higher the pitch is. From the larynx the stream passes to the pharynx, the mouth and the nasal cavities. The shapes of these Cavities modify the note produced in the larynx thus giving rise to particular speech sounds. ..

The following four main types of phonetics may be distinguished:

1. Special phonetics is concerned with the study of phonetics system of a concrete language. When the phonetic system is studied in its static form, at a particular period (synchronically, we speak about descriptive phonetics). When the system is studied in its historical development (diachronically) we speak about historical, or evolutionary phonetics.

Historical phonetics uses the philological method of investigation. It studies written documents and compares the spelling and pronunciation of one and the same word in different periods of the history of the language.[[3]](#footnote-3)

2. General Phonetics which studies the human sound producing possibilities, the functioning of his speech mechanism and the ways they are used in all languages to pronounce speech sounds, syllables, stress and intonation. It is apart of General Linguistics.

3. Descriptive Phonetics studies the phonetic system of a certain language. For example: English Phonetics, Uzbek Phonetics etc.

4. Historical or Diachronical Phonetics which studies the changes a sound undergoes in the development of a language and languages.

5. Comparative - Typological Phonetics. It studies the phonetic features of two or more languages of different system such as English, Russian, Uzbek etc. It is part of Comparative - Typological Linguistics.

2. ASPECTS, TYPES AND METHODS OF PHONETICS

Any segment of a language consist of a sound chain which is specified by some articulatory, acoustic and perceptual features. But not all the phonetic features function to distinguish words, morphemes and phrases and some of them cannot serve this purpose. Thus, it is the function of distinction and also identification which is characteristic of all linguistic units. According to their functions phonetic units - sounds, syllables, stress and intonation can be described linguistically and classified to some groups or subgroups. Thus, Phonetics has four main aspects: articulatory (physiological), acoustic (physic), perceptual (auditory) and phonological (social, functional, linguistic).

The branch of phonetics that studies the way in which the air is set in motion, the movements of the speech organs and coordination of these movements, in-the production of single sounds and trains of sounds is called articulatory phonetics.[[4]](#footnote-4)

Acoustic phonetics studies the way in which the air vibrates between the speaker's mouth and the listener's ear. until recently, articulatory phonetics has been the dominating branch, and most descriptive work has been done in articulatory terms.

The branch of phonetics investigating the hearing process is known as auditory phonetics Its interests lie more in the sensation of hearing, which is brain activity, than in the physiological working of the ear or the nervous activity between the ear and the brain. The means by which we discriminate sounds - quality, sensation of pitch, " loudness and length", are relevant here. The noises we hear may be classified in terms of three features : continuity, resonance and timber.

As for the phonological aspect it differs from all the above mentioned three aspects. The theoretical study which sets up to account all the phonetic distinction of a language is called phonology. Some linguists prefer the terms phonemics and phonematics. Phonology is one of the aspects of studying. Phonetics data : otherwise it is purely linguistic and social aspect of studying phonetics.

Phonetics in the wider sense includes phonology as distinct from morphology, syntax and stylistics. But in narrow sense the term phonetics is observed in our country. Phonetics and phonology have two levels of investigation: segmental and suprasegmental. Segmental phonology studies phonemes realised in various speech sounds. Suprasegmental phonology studies the distinctive features realised in syllables, stress and intonation. It is convenient to use the term phonemics for segmental phonology a sit refers to the term phoneme itself. As to suprasegmental phonology the term prosodics may be used. Thus, phonology may be divided into phonemics and prosodics. The fundamental concept of phonemics is the phoneme which is the smallest unit of a language system.[[5]](#footnote-5)

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 kinesthetic sensations during the articulation of speech sound in comparing them with auditory impressions.

Objective methods involve the use of various instrumental techniques (paleography, 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.

The methods of investigation used in phonetics vary, but there are three principal methods: (1) the direct observation method; (2) the linguistic method; (3) the experimental method.

1. The direct observation method comprises three important modes of phonetic analysis: by ear, by sight and by muscular sensation. Investigation by means of this method can be effective only if the persons employing it have been specially trained to observe the minutest movements of their own and other people’s speech organs, and to distinguish the slightest variations in sound quality. Every phonetician undergoes a special training, in the course of which his phonetic ear, and also his muscular sensation, are developed. By a “phonetic ear” is meant the capability to distinguish the exact quality of sounds pronounced in various sound sequences or in isolation, whether is one’s mother tongue or in a foreign language.

The muscular sensation is developed by constant and regular practice in articulating various sounds. A trained phonetician should be able to pronounce sounds of a given quality (e.g. an open back unrounded vowel, a trilled [r], a fronted [k], etc.), as well as to recognize, by means of means of his highly developed muscular sensation the exact nature of the articulation of any speech sound that he hears.

2. The aim of the linguistic method of investigation of any concrete phonetic phenomena, such as sound, stress, intonation or any other feature, is to determine in what way all of these phonetic features are used in a language to convey a certain meaning. An accurate phonetic analysis (made either by ear or by means of some instruments or apparatus) is of no use whatever unless it serves as a clue that will help to interpret the linguistic function of a phonetic phenomenon.

The linguistic method, therefore, is of paramount importance.

3. The experimental method is based, as a rule, upon the use of special apparatus or instruments, such as the laryngoscope, the artificial palate, the kymograph, the magnetic tape recorder, the oscillograph, the intonograph.

Special laboratory equipment, such as kymograph, spectrograph, oscillograph and intonograph help to obtain the necessary data about prosodic properties of speech sounds.[[6]](#footnote-6)

3. HISTORY OF PHONETICS

The term phonics during the 19th century and into the 1970s was used as a synonym of phonetics. The use of the term in reference to the method of teaching is dated to 1901 by the OED.

Phonics derives from the Roman text The Doctrine of Littera, dubious – discuss which states that a letter (littera) consists of a sound (potestas), a written symbol (figura) and a name (nomen). This relation between word sound and form is the backbone of traditional phonics.[[7]](#footnote-7)

Phonetics was studied as early as 2500 B.C. in ancient India, with Pāṇini's account of the place and manner of articulation of consonants in his 5th century BC treatise on Sanskrit. The major Indic alphabets today order their consonants according to Pāṇini's classification.

The Ancient Greeks are credited as the first to base a writing system on a phonetic alphabet.

Modern phonetics began with Alexander Melville Bell, whose Visible Speech (1867) introduced a system of precise notation for writing down speech sounds.

History of English pronunciation:

English consonants have been remarkably stable over time, and have undergone few changes in the last 1500 years. On the other hand, English vowels have been quite unstable. Not surprisingly, then, the main differences between modern dialects almost always involve vowels.[[8]](#footnote-8)

Around the late 14th century, English began to undergo the Great Vowel Shift, in which the high long vowels [i:] and [u:] in words like price and mouth became diphthongized, first to [əɪ] and [əʊ] (where they remain today in some environments in some accents such as Canadian English) and later to their modern values [aɪ] and [aʊ]. This is not unique to English, as this also happened in Dutch (first shift only) and German (both shifts).

The other long vowels became higher:

[e:] became [i:] (for example meet),

[a:] became [e:] (later diphthongized to [eɪ], for example name),

[o:] became [u:] (for example goose), and

[ɔ:] become [o:] (later diphthongized to [oʊ], for example bone).

Later developments complicate the picture: whereas in Geoffrey Chaucer's time food, good, and blood all had the vowel [o] and in William Shakespeare's time they all had the vowel [u], in modern pronunciation good has shortened its vowel to [ʊ] and blood has shortened and lowered its vowel to [ʌ] in most accents. In Shakespeare's day (late 16th-early 17th century), many rhymes were possible that no longer hold today. For example, in his play The Taming of the Shrew, shrew rhymed with woe æ-tensing is a phenomenon found in many varieties of American English by which the vowel /æ/ has a longer, higher, and usually diphthongal pronunciation in some environments, usually to something like [eə]. Some American accents, for example that of New York City, Philadelphia, or Baltimore make a marginal phonemic distinction between /æ/ and /eə/ although the two occur largely in mutually exclusive environments.

The bad-lad split refers to the situation in some varieties of southern British English and Australian English, where a long phoneme /æ/ in words like bad contrasts with a short /æ/ in words like lad.

The cot-caught merger is a sound change by which the vowel of words like caught, talk, and tall (/ɔ/), is pronounced the same as the vowel of words like cot, rock, and doll (/ɒ/ in New England /ɑ:/ elsewhere). This merger is widespread in North American English, being found in approximately 40% of American speakers and virtually all Canadian speakers.

The father-bother merger is the pronunciation of the short O /ɒ/ in words such as "bother" identically to the broad A /ɑ:/ of words such as "father", nearly universal in all of the United States and Canada save New England and the Maritime provinces; many American dictionaries use the same symbol for these vowels in pronunciation guides.[[9]](#footnote-9)

III. CONCLUSION

As we have already above mentioned, language as “the most important means of human intercourse” exists in the material form of speech sounds. It cannot exist without being spoken.

Linguistic is composed of some units, which are divided into significant and non - significant ones. The whole system of relation of linguistic units forms a system of a language. Languages differ in systems and structures.

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English consonants have been remarkably stable over time, and have undergone few changes in the last 1500 years.

Around the late 14th century, English began to undergo the Great Vowel Shift.

Later developments complicate the picture: Geoffrey Chaucer and William Shakespeare added theirs contribution in pronunciation.

Thus, we can draw a conclusion. The course paper is dedicated to the theme Phonetics as a branch of linguistic. Today, this theme is one of the most interesting, disputable and important problems of theoretical phonetics of modern English.

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