**МИНИСТЕРСТВО ВЫСШЕГО И СРЕДНЕГО СПЕЦИАЛЬНОГО ОБРАЗОВАНИЯ РЕСПУБЛИКИ УЗБЕКИСТАН**
**САМАРКАНДСКИЙ ГОСУДАРСТВЕННЫЙ ИНСТИТУТ ИНОСТРАННЫХ ЯЗЫКОВ**

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# РЕФЕРАТ

**НА ТЕМУ: Phoneme as a unit of language**

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## 1.Definition of the phoneme and its functions

To know how sounds are produced is not enough to describe and classify them as language units. When we talk about the sounds of language, the term "sound" can be interpreted in two different ways. First, we can say that [t] and [d], for example, are two different sounds in English: e.g. *ten-den, seat-seed.* But on the other hand, we know that [t] in *let us* and [t] in *let them* are not the same. In both examples the sounds differ in one articulatory feature only. In the second case the difference between the sounds has functionally no significance. It is clear that the sense of "sound" in these two cases is different. To avoid this ambiguity, linguists use two separate terms: phoneme and allophone.

The phoneme is a minimal abstract linguistic unit realized in speech in the form of speech sounds opposable to other phonemes of the same language to distinguish the meaning of morphemes and words.

Let us consider the phoneme from the point of view of its aspects.

Firstly, the phoneme is a functional unit. In phonetics function is usually understood as a role of the various units of the phonetic system in distinguishing one morpheme from another, one word from another or one utterance from another. The opposition of phonemes in the same phonetic environment differentiates the meaning of morphemes and words: e.g. *bath-path, light-like.* Sometimes the opposition of phonemes serves to distinguish the meaning of the whole phrases: *He was heard badly - He was hurt badly.* Thus we may say that the phoneme can fulfill the distinctive function.

Secondly, the phoneme is material, real and objective. That means it is realized in speech in the form of speech sounds, its allophones. The phonemes constitute the material form of morphemes, so this function may be called constitutive function. Thirdly, the phoneme performs the recognitive function, because the use of the right allophones and other phonetic units facilitates normal recognition. We may add that the phoneme is a material and objective unit as well as an abstract and generalized one at the same time.

## 2. Types of allophones and the main features of the phoneme

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.

**3. Methods of the phonemic analysis**

The aim of the phonological analysis is, firstly, to determine which differences of sounds are phonemic and which are non-phonemic and, secondly, to find the inventory of phonemes of the language.

As it was mentioned above, phonology has its own methods of investigation. Semantic method is applied for phonological analysis of both unknown languages and languages already described. The method is based on a phonemic rule that phonemes can distinguish words and morphemes when opposed to one another. It consists in systematic substitution of one sound for another in order to find out in which cases where the phonetic context remains the same such replacing leads to a change of meaning. This procedure is called the commutation test. It consists in finding minimal pairs of words and their grammatical forms. For example:

pen [pen] den[den]

Ben [ben]

gain [gain]

cane [kain]

ten [ten]

Minimal pairs are useful for establishing the phonemes of the language. Thus, a phoneme can only perform its distinctive function if it is opposed to another phoneme in the same position. Such an opposition is called phonological. Let us consider the classification of phonological oppositions worked out by N.S. Trubetzkoy. It is based on the number of distinctive articulatory features underlying the opposition.

1. If the opposition is based on a single difference in the articulation of two speech sounds, it is a single phonological opposition, e.g. [p]-[t], as in [pen]-[ten]; bilabial vs. forelingual, all the other features are the same.

2. If the sounds in distinctive opposition have two differences in their articulation, the opposition is double one, or a sum of two single oppositions, e.g. [p]-[d], as in [pen]-[den], 1) bilabial vs. forelingual 2) voiceless-fortis vs. voiced-lenis

3. If there are three articulatory differences, the opposition is triple one, or a sum of three single oppositions, e.g. [p]- [ð], as in [pei]-[ ðei]: 1) bilabial vs. forelingual, 2) occlusive vs. constrictive, 3) voiceless-fortis vs. voiced-lenis.

American descriptivists, whose most zealous representative is, perhaps, Zellig Harris, declare the distributional method to be the only scientific one. At the same time they declare the semantic method unscientific because they consider recourse to meaning external to linguistics. Descriptivists consider the phonemic analysis in terms of distribution. They consider it possible to discover the phonemes of a language by the rigid application of a distributional method. It means to group all the sounds pronounced by native speakers into phoneme according to the laws of phonemic and allophonic distribution:

1. Allophones of different phonemes occur in the same phonetic context. In this case their distribution is contrastive.

2. Allophones of the same phoneme(s) never occur in the same phonetic context. In this case their distribution is complementary.

There is, however, a third possibility, namely, that the sounds both occur in a language but the speakers are inconsistent in the way they use them, for example,

*калоши-галоши*, and [‘eiʃэ - ‘егжэ]. In such cases we must take them as free variants of a single phoneme. We could explain the case on the basis of sociolinguistics. Thus, there are three types of distribution: contrastive, complementary and free variation.

## 4. Main phonological schools

Let us consider the phrase [на лугу кос нет] and words [вАлы ], [сАма]. Logically, there can only be three answers to the question: which phonemes are represented by the consonant sound [с] in [кос] and by the vowel sound [А] in [вАлы]:

М (1) If [кос] and [вАлы] are grammatical forms of the words *коза* and *вол* respectively, then the consonant [с] represents phoneme /з/, while the vowel [А] is an allophone of the phoneme /о/. If [кос] and [вАлы] are grammatical forms of the words *коса* and *вал* respectively, then the consonant [с] belongs to the phoneme /с/, while the vowel [А] should be assigned to the phoneme /а/**.**

СП (2) The consonant [с] in [кос] belongs to the phoneme *Id* no matter whether it is a form of *коза* or that of *коса*, while the vowel [А] in [вАлы] represents the phoneme /а/ no matter whether it is a form of *вол* or that of *вал.*

П (3) The consonant [с] represents neither phoneme /з/, nor phoneme *Id*, while the vowel [А] in [вАлы] does not belong either to the phoneme /а/ or to the phoneme /о/.

Since there are three possible answers to the above questions, there are three schools of thought on the problem of identifying phonemes.

Those linguists who give the first answer belong to the so-called morphological (Moscow phonological) school (R.I. Avanesov, V.N. Sidorov, P.S. Kuznetsov, A.A. Reformatsky, and N.F. Yakovlev). The exponents of this school maintain that two different phonemes in different allomorphs of the same morpheme may be represented on the synchronic level by one and the same sound, which is their common variant and, consequently, one and the same sound may belong to one phoneme in one word and to another phoneme in another word.

In order to decide to which phoneme the sounds in a phonologically weak (neutral) position belong, it is necessary to find another allomorph of the same morpheme in which the phoneme occurs in the strong position, i.e. one in which it retains all its distinctive features. The strong position of a Russian consonant phoneme is that before a vowel sound of the same word, whereas the strong position of a vowel phoneme is that under stress. The consonant [c] in *кос* belongs to the phoneme *Id* because in the strong position in such allomorphs of the same morpheme as in *коса*, *косы* the phoneme is definitely /c/. In *коз* the same sound [c] is a variant of the phoneme /з/ because in the strong position, as in *коза*, *козы*, the phoneme is definitely /з/. The vowel [A] in *валы* is an allophone of the phoneme /a/ because the phoneme occurs in the strong position in *вал* while the same vowel [A] in *волы* is a variant of the phoneme /o/ because this phoneme is found in the strong position in *вол.*

According to this school of thought, the neutral vowel sound in *original* should be assigned to the English phoneme /σ/ because this phoneme occurs in the strong position in such word as *origin.*

The second school of thought, originated by L.V. Shcherba, advocates the autonomy of the phoneme and its independence from the morpheme. Different allomorphs of a morpheme may differ from each other on the synchronic level not only in their allophonic, but also in their phonemic composition. According to the Leningrad (Petersburg) phonological school (L.V. Shcherba, L.R. Zinder, M.I. Matusevich), speech sounds in a phonologically neutral position belong to that phoneme with whose principal variant they completely or nearly coincide. Thus, the sound [c] in [кос] should be assigned to the phoneme /c/ because it fully coincides with the latter's principal variant, which is free from the influence of neighboring speech sounds. The vowel [A] in [вАлы] should be assigned to the phoneme /a/ because it nearly coincides with the latter's principal variant [a]. The vowel [ъ] in [вълАвос] does not even resemble either [o] or [a] or [A] but it is still assigned to the /a/ phoneme because both /o/ and /a/ are reduced to [ъ].

According to the third school of thought, there exist types of phonemes

higher than the unit phoneme. Different linguists call them differently. One of the terms for them introduced by Prague Linguistic Circle, namely by N.S. Trubetzkoy and R. Jacobson, is archiphoneme. According to them, the archiphoneme is a combination of distinctive features common to two phonemes. Thus each of the speech sounds [с], [з] represents the phonemes /с/, /з/. These two phonemes differ from each other only in matter of voice, while both of them possess the other two distinctive features: (1) forelingual (2) fricative articulation. These two features together constitute the archiphoneme to which both [с] and [з] belong. This archiphoneme is, therefore, neither voiceless nor voiced. It designated by Russian capital letter С. The sound [с] in [кос] in both *На лугу кос нет* and *На лугу коз нет* belongs to this archiphoneme and not to the phoneme /с/ or /з/.

The phoneme /а/ and /о/ belong to archiphoneme which is realized in the sound [А], as in [вАлы] meaning both *валы* and *волы*.