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Comparative Analysis of the Sound Structure of the Uzbek and Russian Languages

Najmiddinov Fazliddin Nasriddinovich

Associate Professor, Navoi State Pedagogical Institute (Uzbekistan)

ABSTRACT: The study of the sound structure of a language can be the subject of comparative (comparative) phonetics and comparative phonology. Comparative phonetics studies the features of the formation of sounds and prosodic (intonational) means of languages. For example, in European languages a different position than in Russian and Uzbek languages, lips take on when pronouncing sounds, a different position of the language when pronouncing sounds. The stress of the European languages differs from the Russian and Uzbek languages in strength and height. It is important to know such features in order to master the correct pronunciation, and they are studied in detail in the courses of practical and normative phonetics.

KEY WORDS: sound structure, phonetics, phonology, consonantism, vocalism, divergence, convergence

I. INTRODUCTION.

Comparative phonology studies sounds and prosodic phenomena primarily in the functional aspect as a means of distinguishing the sound envelopes of words and utterances. In this regard, the task of identifying those features on the basis of which phonemes and intonational structures (prosodemes or intones) are distinguished or identified in these languages comes to the fore. The distinction between phonemes and intonation structures, in turn, determines the different meanings of words, morphemes, whole utterances. Comparative typology studies the sound system primarily in its phonological aspect.

II. COMPARATIVE PHONETICS.

The typological comparison is based on the comparison of the phonetic systems of the two languages. The concept of a system presupposes a certain set of phonemes (their inventory) and the relationship between them. The relationship between phonemes is determined by features that distinguish or bring the phoneme closer together. Each phoneme can be represented as a bunch (collection) of certain features. For example, Russian phonemes [m] differ by the sign of hardness / softness (palatalization). This is facilitated by two factors: a) these sounds are presented in many service words and grammatical formants; b) in the flow of speech in Russian, a voiced consonant is often stunted [1.78-91]. According to the method of formation, consonants in speech are distributed as follows:

Smychnye 46.1% 38.3%

Slotted 53.9% 61.7%

Some predominance of slit in the Russian language, perhaps, should be explained not so much by the use of the yu sound, which is used relatively even more often, as by the higher frequency that makes up the preposition в, the prefixes в, sun, you, which is included in a number of morphemes, and especially, widely used in Russian inflections.

Palatalized consonants are frequent in Russian, together sony makes up 35.8% of all consonants. In Uzbek speech, palatalized consonants and others make up.

At the place of education, consonants in speech are presented as follows:

Labial 28.0% 20.6%

Front-lingual 47.6% 63.1%

Intermediate speakers 3.4% 7.1%

Rear-lingual 7.5% 9.2%

Uvular 13.5% -

Attention is drawn to the polarization of consonants at the place of articulation in comparison with the Russian language, which can be compared with the above-mentioned polarization of vowels. In the Uzbek language, there are relatively more labial consonants formed in the very front part of the vocal apparatus, and on the other hand, there are



relatively more frequent sounds formed in the back of the oral cavity. On the contrary, the Russian language is characterized by a smaller spread of consonants at the place of articulation, which is comparable to the centripetal tendency in the formation of vowel sounds[2.89-119].

The set of these consonants is the same, their order is different, which is explained by their presence in the roots and especially in the service words and grammatical morphemes. Thus, the high frequency in the Uzbek language is associated with the use of prepositions[3.11-66].

In comparative typology, attention was paid to the frequency of occlusive consonants, among which the most frequent are the front-lingual, followed by the back-lingual, and finally the labial.

Against the background of the general Indo-European tendency in the Uzbek and Russian languages, the six main occlusive consonants are distributed as follows[4.41-49].

In general, static data covering vowels and consonants show that in Uzbek speech there are relatively more sounds pronounced with the participation of the voice, lips, and nasal cavity. At the same time, there are more explosive sounds in Uzbek speech. These data reflect the well-known articulatory features of Uzbek pronunciation: active work of the speech organs, clarity of articulation.

Thus, in order to compare the systems of the phonemes of the Uzbek and Russian languages, it is necessary to determine the inventory (list) of phonemes and then indicate which differential features underlie them in each language: common or different. Comparative analysis of phonemes is carried out both at the level of systems and in terms of their functioning in speech. In this regard, they differ:

1) phonetic (more precisely, phonemic) paradigmatics - a description of a system of phonemes based on their features;

2) phonetic syntagmatics, in which two aspects are distinguished: a) the frequency of phonemes in speech; b) phonetic combinatorics, i.e. compatibility of phonemes, in other words, the possibility of combining different phonemic features;

3) phonetic transformer - a change in phonemes in speech, their alternation, i.e. replacement of some phonemic features with others. There are two types of alternation: positional and historical[5.93-119].

We will first consider the phonemic paradigmatics, positional changes, and the frequency of phonemes in speech. Compatibility and non-positional (historical) alternations will be analyzed separately.

Determining the nomenclature of phonemes is not an easy question, since in each language there are controversial cases as to whether these sounds are independent phonemes or they are variants of other phonemes. For example, in the Russian language a special position is occupied by the sound [s], which is considered by many linguists as a positional variant of the phoneme [u], and not as an independent phoneme. Among Russian consonants, controversial ones are, for example, soft ones, which are defined either as independent phonemes or as positional variants (allophones) of hard phonemes[6.45-211]. Most often, the phonemic composition of the Russian language is determined as follows:

5 vowel phonemes

37 consonant phonemes.

The difficulties in determining the phonemic composition of a language are associated with many factors. For comparative analysis, the heterogeneity of linguistic phenomena is of particular importance, and therefore, in the systematic study of linguistic facts, it is important to distinguish between the core and the periphery. The core of the phonological system includes the main productive phenomena of the language, the periphery of the irregular, single, secondary phenomena. When analyzing the language system as a whole, peripheral phenomena can be ignored. The periphery of the phonetic structure includes sounds and sound combinations that are found only in interjections, onomatopoeic, certain borrowed words, archaisms, neologisms, etc., as well as phenomena that are not included in the literary norm of the language. For example, along with borrowings from English into French, the sound (ng) (meeting? Camping) came.

Comparison of phonological systems consists primarily in the comparison of features on the basis of which phonemes are formed. The features inherent in a given phoneme, the totality of which forms this phoneme, are called constitutive or differential. A constitutive feature that distinguishes itself between two phonemes of a given language is called correlative. According to the role in the organization of the system of phonemes, three types of phonological signs are distinguished: constitutive, correlative, constitutive non-correlative and unconstitutional.

1. A constitutive correlative feature is an obligatory feature of a given phoneme, which at the same time distinguishes one phoneme from another. This feature forms a relative pair of phonemes. Replacing a feature with its opposite leads to the formation of another phoneme of the given language. For example, among Russian phonemes, palatalization is a correlative feature, since it distinguishes between two phonemes, which can be seen in the example



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of words such as chalk and stranded, was and reality. With respect to the correlative feature, the speaker can make a choice, but this choice is functional, meaningful, that is, it is associated with a change in the meaning of the word. Correlation features constitute the foundation of the phonological system.

2. A constitutive non-correlative feature is obligatory for a given phoneme, but it does not in itself create an opposition .. its replacement with an opposite does not lead to the emergence of a new phoneme of a given language, but only to a distortion of the existing one. So, in the Russian sound, palatalization is a constitutive feature, because this sound is pronounced softly, but it is not correlative, since there is no solid [h] in the language. A differential non-correlative feature is often conjugate, that is, associated with another non-correlative feature of phonemes. For example, in the Russian phoneme, the signs of longitude and palatalization are interrelated and jointly oppose this phoneme to the phoneme. There are no phonemes in Russian, so the sign of longitude and palatalization is not correlative in phonemes (w). Constitutive non-correlative features refer to the language norm, which generally does not allow a choice, variation of this feature in a given phoneme.

3. An unconstitutional feature is optional for a given phoneme; it may or may not be present in the sound, its presence is associated not with the difference in meaning, but with the position of the sound in speech. This feature forms not phonemes, but allophones - positional variants of phonemes that are in additional distribution: where one variant of a given phoneme is found, there is no other. So, in Russian, the sound (c) is replaced by a zone with an affricate (dz) before a voiced consonant: father, was. However, variant is considered a characteristic feature of a phoneme when it is considered in isolation, outside the speech chain, in a strong position. Additional options represent specific changes (implementations) of phonemes in specific conditions. When describing the phonetic system of a language, the main features are taken into account, while additional features that form additional positional variants are considered in phonetic syntagmatics and in the study of alternations.

In a comparative study of the phonological structure of a language, it is important to distinguish between the three types of manifestation of signs noted. Phonemes are formed due to correlative features, as well as conjugate non-correlative features, which act, therefore, functionally, as a complex correlative feature. Thus, the more features are used as differential correlations, the greater the number of phonemes in a given language[7.60-65].

Distinguishing between different types of features allows you to better understand the nature of interlingual interference. Especially important in this respect are differential correlative features associated with the meaningful function of the phoneme. On the comparative level, four types of correlations are possible, concerning correlative phonemic features (the presence or absence of the feature "is marked, respectively, with a + or - sign).

1. deafness / voicedness
2. hardness / softness
3. open / closed
4. hardness / softness.

Interference is especially significant in the third case (the absence of a differential feature in the native language), and here it can lead to a distortion of the meaning.

Significance for typological

The ratio of vowels and consonants in a language

Uzbek and Russian languages have the following number of vowels and consonant phonemes:

(Uzbek language) (Russian language)

Vowels 10 5

Semivowels 3 1

Consonants 23 36

Total 36 42

As seen. The total number of phonemes in both languages is approximately the same. The number of phonemes in the world's languages ranges from 10 to 70, so that both languages occupy an average position. However, with quantitative proximity, there is a significant qualitative discrepancy. In Russian, there is a significant predominance of the number of consonant phonemes over vowels, in Uzbek, on the contrary. There are three times more vowel and semi-vowel phonemes in Uzbek than in Russian, and half as many consonants. Than in Russian. The larger number of phonemes in the language is due to the large number of constitutive correlative features[8.91-123].

In principle, some types of vowels can transform into consonants and vice versa. The transition of a consonant into a vowel sound (vocalization) is observed, for example, in the history of the Uzbek language. Vocalization is unusual for modern Uzbek and Russian languages. On the contrary, consonantization (the transition of a vowel to a consonant) is observed in both languages. In both languages, consonantization serves as a means of eliminating vowel congestion.



Consonants and vowels in speech. An important typological indicator of the sound organization of speech in a language is the ratio between vowels and consonants, the so-called consonant saturation in speech. This indicator fluctuates in the sound chains of different languages from 2.0 (two vowels per 1 consonant) to 0.5 (one vowel per two consonants) In the Uzbek and Russian languages, the number of vowels and consonants in the system and in the text is, respectively:

(Uzbek) (Russian)

System text system text

Vowels 15 43% 45% 5 12% 43%

Consonants 20 57% 55% 37 88% 57%

Differences in the system are smoothed out at the speech level. In the Russian text, there are 130-140 consonants per 100 vowels, in the Uzbek text there are 120-130. In terms of consonant saturation, these languages occupy an average position among other languages of the world. If in the system the number of French vowels is three times greater than the number of Russian vowels, then the excess in the text is small - about 10%.

The Russian language allows clusters of consonants, and somewhat unexpected data showing the use of vowels in Russian speech is partly explained by the fact that many Russian inflections are based on vowel sounds and on a uniform alternation of vowels and consonants. The confluence of consonants at the beginning of a word is compensated by an abundance of vowels in inflections. In Russian speech, vowels and consonants are distributed more evenly than in individual words taken from the dictionary. On the contrary, the following factors contribute to a certain increase in the consonant saturation of the Uzbek speech: a) loss of vowels; b) the ability to pronounce consonants; c) the use of official words containing consonants; d) the appearance of consonants during grammatical changes[9.101-143].

III. VOCALISM OF RUSSIAN AND UZBEK LANGUAGES

The constitutive features of a vowel are determined by the position of the speech organs involved in the articulation of the phoneme. These organs include the tongue, the lower part, the lips, the curtain of the palate, and the pharyngeal cavity. Depending on the participation of these organs, the following constitutive features are formed: rise and row (tongue and jaw), labialization (lips), nasalization (palatine curtain), pharyngealization (pharynx). To these signs of a qualitative nature, one should add a sign of a quantitative nature - longitude, as well as biphonemicity, that is, the merger of two vowel phonemes into the bottom, forming a diphthong.

These seven signs are the main general linguistic potential vowel signs. This means that in any language the quality of vowel phonemes is determined by a combination of any of these features. However, not all of these features are necessarily implemented in a separate language. For example, there are no pharyngeal vowel diphthongs in Russian and Uzbek. The universal typology assumes that the vocal systems of all languages are based on the primary (nuclear) system, which consists of only three phonemes, differing in terms of ascent and related features of series and lability:

Thus, the vocal minimum includes three constitutive features: rise, row and lability, which should be considered as universal features that somehow participate in the formation of vowel phonemes of any language. Other signs are either specific to the studied languages or are absent. The relationship between the vowel phonemes of the Uzbek language can be represented in the form of a canted trapezoid, where the position of the phoneme shows rise and row, parentheses - labialization, tilde - nasalization. The system of vowel phonemes of the Russian language can be represented in the form of a triangle:

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In the Uzbek language, the vowel system has become more complex due to the following factors:

a) great specialization of the axes: the formation of four phonemes in each wing of the primary scheme;

b) polarization of the sounds of the front and back rows;

c) the use of specific features in phonemic oppositions: impudence, absent in the Russian language, and labialization.

Signs of vocalisms in the Uzbek and Russian languages are the following functions: correlative sign; conjugate feature, non-correlative feature; show the possibility or impossibility of a positional change of the attribute: rise, row, lability, impudence, longitude, biphonemicity[10.286-299].

The rise is closely related to the row, since both of these signs are determined by the position of the same organ-tongue. some theories consider them as a single feature, which is not entirely accurate, because it is the comparison of languages that shows that the vowels of the same ascent can differ in a number. On the other hand, in the description of Russian vocalism, a number is sometimes excluded from the number of differential features on the



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grounds that the rank of sound depends on its position in the word; for example, after soft consonants, the sounds of the back row are replaced by sounds of the front row. However, the sounds of the front row act as additional variants of the phoneme, while in the main version - in a strong position, when the neighboring consonant sounds do not affect the vowel phoneme, these phonemes are the phonemes of the back row. In the Uzbek language, the rise is more differentiated than in Russian. In Russian, there are only 3 degrees of vowel elevation, while in Uzbek.

Row . in the Uzbek language this feature manifests itself more often than in Russian: here it is correlative, since it independently distinguishes between pairs of phonemes. In Russian, in a strong position, a number does not separate phonemes independently, but in combination with labialization, it acts as a conjugate constitutive, but non-correlative feature.

Labiality appears as a correlative feature in four pairs of Uzbek phonemes and as a constitutive non-correlative feature in four back rows. In Russian, labiality is not an independent correlative feature of phonemes, but is a conjugated constitutive feature of the back row phonemes, opposing not phonemes, but variants of phonemes. So, the main difference in the role of two features - row and labiality - in the compared languages is as follows: in Russian they are conjugated and distinguish phonemes together. In the Uzbek language, they independently distinguish between phonemes.

Nasality is completely absent in Russian vocalism, but it is a correlative differential feature in four pairs of Uzbek phonemes. Vowel lengths are present in both Uzbek and Russian. However, unlike some other languages (English and German), it is not a correlative feature. Previously, phoneticians saw the differential function of longitude in opposition to phonemes, for example, in words. Currently, this opposition has lost its semantic meaning, dictionaries transcribe both words. In the modern Uzbek language, longitude plays a double role:

a) it acts as a constitutive feature in the case of the so-called "historical longitude", which is characteristic of nasal vowels, and also, sometimes. since, however, longitude is not noted in all positions, it tends to turn from a constitutive feature into an unconstitutional, positional one;

b) it acts as a positional sign in the case of the so-called "rhythmic longitude", when a vowel is stressed in a stressed syllable before consonants;

in Russian, duration acts exclusively as a positional sign of vowels and in a stressed syllable. In unstressed syllables, the vowels are reduced. In general, in Russian speech, the difference in vowel duration is less than in Uzbek.

Biphonemicity is unusual for the vocalism of both languages: there are no genuine diphthongs in them. Here the relationship is the opposite of what is observed in the vowel system. Russian consonantism has more correlative distinctive features, which explains the greater number of phonemes in comparison with Uzbek. In relation to the place of education in both languages, the same ranks are presented. The exception is the uvular (g) of the Uzbek language.

As for the way of forming consonants, here the Russian language is more diverse than Uzbek. He possesses affricates, which he does not know the Uzbek language, and a trembling sonant. Gloss participation. In both languages, noisy and sonants are distinguished. The latter are 8 in Uzbek, 9 in Russian, including 4 palatalized[11.117].

For many phonemes, voicedness and voicelessness are constitutive non-correlative features. Voicedness is characteristic primarily of sonants. The rest of the phonemes of the Uzbek language differ in voicing and deafness. There are 4 deaf phonemes in Russian.

Palatality acts as an important differential feature in the system of Russian consonants, where it affects 15 pairs of phonemes. In addition, it acts as a constitutive non-correlative feature in hard and soft phonemes. In the Uzbek language, the role of palatalization is immeasurably less. It does not appear anywhere as a feature that distinguishes paired phonemes, but it can be considered a non-correlative constitutive feature: most Uzbek phonemes are hard and soft.

Longitude is not a correlative feature of consonants in either Russian or Uzbek. In Russian, it acts as a conjugate constitutive feature of phonemes, which differ from a phoneme in two at the same time.

Positional change of consonants:

1. Quantitative change of consonants. During assimilation, at the junction of words and morphemes, as well as as a result of the loss of intermediate vowels in both languages, long geminated consonants can arise. In the Uzbek language, in this case, not just an elongated consonant is pronounced, but a special type of two-vertex consonant.

2. Qualitative change of consonants.

Labialization of a consonant before the next labialized vowel occurs in both languages. In Uzbek speech, it is more pronounced due to the more significant labialization of the vowels themselves.

Palatalization is celebrated in both languages, but under different conditions. In the Uzbek language, it is observed before vowels less often before.



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In Russian it is difficult to speak of palatalization of consonants before vowels. In this language, palatalized consonants represent special phonemes, and not variants of phonemes, as in Uzbek. The position before the vowel is a strong position for Russian consonant phonemes, in which case the soft consonant is used "by itself" and not as a variant of the hard consonant. It should be considered that, for example, the base of the table has two options: hard and soft.

Variations in voicing and devoicing in the Uzbek language are found only in cases of assimilation of consonants within a word or at the junction of words within a rhythmic group. However, this assimilation turns out to be incomplete: it concerns the participation of the voice, without affecting the intensity of the pronunciation of the consonant. Therefore, it sounds like muffled. In Russian, voicing of consonants occurs in the same conditions as in Uzbek, and devoicing is also found at the end of a word. In general, this change is much more characteristic of the Russian language and occurs more fully than in Uzbek. In both languages, the devoicing of the consonants is also observed at the end of the word: meter, ship. In Russian, in contrast to Uzbek, there is also a variation in the place of formation of the consonant: during assimilation, the teeth pass into the palatines. The mode of education is a stable feature in both languages.

3, Complete reduction of consonants. In Uzbek colloquial speech, they can occur at the end of a word after consonants, as well as in the pronoun and before. In Russian, the loss of consonants in groups is also characteristic of literary speech. In colloquial speech and vernacular, this phenomenon is represented very widely, intervocal consonants are omitted: in general, complete reduction of consonants is more characteristic of Russian speech.

As well as in relation to vowels, Uzbek consonants show greater stability of phonological features than Russians. This is due to the peculiarities of the articulation of sounds in the Uzbek language: clarity, energy. Sounds in this language are more independent of both "neighbors" and their place in the word than in Russian.

Consonant sounds in speech.

According to the participation of the voice, consonants in speech are distributed as follows:

Sonants 43.1% 35.5%

Voiced noisy 21.4% 20.3%

Deaf noisy 35.5% 42.2%

First of all, a high frequency of sonants in the Uzbek language is revealed. Sonants take 1st and 4th place in Uzbek speech, respectively, among all sounds, both consonants and vowels. This is also explained by the fact that they are part of many official words and morphemes.

The predominance of voiceless consonants over voiced consonants in the noisy group is a common feature for the compared languages. And yet, in Russian, the deaf are found in the text much more often than the voiced ones. This is facilitated by two factors: a) these sounds are presented in many service words and grammatical formants; b) in the flow of speech in Russian, a voiced consonant is often devoiced. According to the method of formation, consonants in speech are distributed as follows:

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explained by their presence in the roots and especially in the service words and grammatical morphemes. Thus, the high frequency in the Uzbek language is associated with the use of prepositions[12.8-91].

IV. CONCLUSION.

comparative typology, attention was paid to the frequency of occlusive consonants, among which the most frequent are the front-lingual, followed by the back-lingual, and finally the labial. Against the background of the general Indo-European tendency in the Uzbek and Russian languages, the six main occlusive consonants are distributed as follows. In general, static data covering vowels and consonants show that in Uzbek speech there are relatively more sounds pronounced with the participation of the voice, lips, and nasal cavity. At the same time, there are more explosive sounds in Uzbek speech. These data reflect the well-known articulator features of Uzbek pronunciation: active work of the speech organs, clarity of articulation.

Researchers see this feature of the Uzbek language as the reason for the widespread use of puns and puns in Uzbek literature. At the same time, this circumstance also has negative consequences, since phrases or phrases that are not clear in meaning are created and cacophonous combinations of sounds arise. An Uzbek speaker should take this into account and know how to overcome these difficulties.

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