

## INVENTORY OF PHONEMES IN KAZAKH LANGUAGE

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### ABSTRACT

Nowadays the humanizing of the science, deep changes took place in the society, the innovation of public mind ascertained the language as a priceless value.

The place of Kazakh Republic as the subject of international relations, getting the state status of Kazakh language considers representatives of linguistic associations to learn the state language. Also, Kazakh language is taught as an obligation subject in genera and higher education.

**KEYWORDS:** Phonetic System, Phonological and Morphological Transference, Synchronic and Diachronic Principles, Vowels

### INTRODUCTION

Qualifying the target language in the linguistic panorama of Kazakh society, improvement of state and one of the international languages not only the sign of culture but also it becomes life necessity. Sure, all the said above, concluding it becomes alive through the useful and developed educational skills and habits. Such skills and habits is leaned on the results of deep research and opinions. Teaching foreign language on the basis of target language to the members of Kazakh group needed new textbooks and teaching aids. The great scientist A. Baitursynuly said that, everyone has to teach writing and reading skills his child in the target language, but after the same time they have to be taught in other way. If we want our language to be perfected, we have to teach in the target language and then in foreign language (1,147). Varieties of the textbooks began printed in the new scientific base. Researches of A. Baitursynuly (1), K. Zhubanov (2), H. Dosmykhameduly (3), T. Shonanov (4), K. Kemengerov (5), E. Omarov (6), phonetic and phonological opinions of I. Kengesbayev (7), Zh. Aralbayev (8) etc. and also the principles of general phonological theory helps to understand deeper the nature of the linguistic fact.

It was made spectrum research in the vocal system of Kazakh language M. Raimbekova (11). S. Tatubaev (12) investigated the sound units from the functional point. S. Myrzabekov who investigated sound units of Kazakh language in syntagmatics defined in his investigations, that sound units are in three levels – morphemic, semi- morphemic and semi - word.

A. Aigabylov (20) defined and distinguished phonological and morphological transference in his work of Kazakh linguistic morphonology. M. Zhusipov (21) showed synchronic and diachronic principles, syngarmo sound units of the positional and ant positional transference of Kazakh sounds and made phonological research. Zh. Nazbiyev (22) looked through the syngarmo segmental units in his works.

Defining units incoming the sound paradigm of every phoneme and describing them helps to understand deeper units of phonetic level and also to define problems in accordance with orphoepic and orthographic problems and also helps to write scientific vocabulary from the scientific point of view.

### Kazakh Sound System

The Kazakh language has its history more than a century, however, the sound inventory and its quantity which makes the sound system of the Kazakh language has not systematized yet. For example, one of the famous Turkologist – scientist who investigated and analyzed the structure of Kazakh sound system N. I. Ilminsky showed 8 types of vowels (a, / ä, e, ы, i, o, / ö, y). He said that the vowel [ə] is a variant of the vowel [a]. He named 19 types of consonants (п, б, м, w, т, д, н, ж, з, ш, с, р, л, j, к, ґ, қ, г, ң). Outstanding orientalist V. V. Radlov who paid a special attention to the main problems of Kazakh phonetics, analyzed the sound structure of the Kazakh language noticed that it consists of 9 vowels: (a/ä, e, o, /ö, ÿ, i, ы, y); and paid his attention to 20 consonants:

Voiceless - (қ, к, т, п, с, ш) q, k, t, p, s, š;

Voiced - (ғ, г, д, б, з, ж) y, g, d, b, z, ž;

Sonorous - (ң, н, м, р, н, м, q, r, l, l;

Adjacent - y (w) w, j

One of the outstanding Turkic scientists P. M. Melioransky also investigated the sound system of the Kazakh language and he came to conclusion that the system of vocalism consists of 9 vowels: (a/ä, e, o, /ö, ÿ, i, ы, y) and system of consonantism consists of 21 (п, б, м, т, д, н, ж, з, ш, с, р, л, к, ғ, қ, г, ң, ч, й, дж) consonants. There were other several Turkologists who investigated the phonetic system of the Kazakh language such as V. Katarinsky, I. Laptev, N. Sazontov etc. In his research works about the history of Kazakh phonetics Zh. A. Aralbaev wrote: “We can name the works of : V. Katarinsky – “ Kirghiz grammar” (Phonetics, ethymology and syntax. Orenburg, 1897), I. Laptev- “The materials of Kazakh- kirghiz languages” (Moscow, 1900), N. Sazontov-“The notes of Kirghiz grammar” (Tashkent, 1912) which were written before the October revolution. But there is no fresh idea in the sphere of phonetics in these works, generally they repeated the problems which were considered till that time”.

Thus, at the early stage of investigations about the Kazakh phonetics some opinions such as: the sound [ə] is the variant of the vowel [a] (N. I. Ilminsky), the hard and soft types of the consonant [л] were recognized as a separate consonant (V. V. Radlov, P. M. Melioransky), the consonants [к],[г],[к],[ғ] were shown as guttural sounds according to the place of articulation (P. M. Melioransky) etc. were transitional.

V. V. Radlov`s and P. M. Melioransky`s thoughts and conclusions about Kazakh phonetics hasn`t been losing their scientific importance. Their scientific analysis and opinions were the basis of investigations. That is why the works of V. V. Radlov and P. M. Melioransky were included to the main fund of Turkic investigations. The first Kazakh phonetician-scientist A. Baitursynuly had his own opinion about the Kazakh sounds. And it is seen from his alphabetic system.” There are 24 sounds in Kazakh language: 5 of them are vowels and 17 are consonants. The vowel sounds are: /a/, /o/, /y/, /ы/, /e/ The consonants are: /б/, /п/, /т/, /ж/, /ш/, /д/, /р/, /з/, /с/, /ғ/, /к/, /к/, /г/, /н/, /л/, /м/, /ң/. The half vowel sounds are: short .../y/ and short .../ÿ/.”

### Articulation of Consonants

According to the position of the tongue and the lips professor K. Zhubanov acoustically divided the vowels into three groups: the complete vowels (а-ә, е, о-ө); the short vowels (ы-і, ұ-ү) and compound vowels (ұу, үу, ый, ій). He divided the noise consonants into 3 groups (except sonorous consonants): Labial (п, б), dental (т, с, ш, д, ж, з) and glottal (к, қ, ғ, г) sounds. He defined the place of articulation of sonorant consonants and divided them into: direct (у, й) and roundabout (р, л, м, н, ң) sonorants. The roundabout sonorant consonants were subdivided into: nasal (м, н, л) and the oral (р, л). Professor K. Zhubanov defined 32 sounds in the Kazakh language: 13 (а/ә, е, о/ө, ы/і, ұ/ү, ұу, үу, ый, ій) vowel sounds, 19 (п, б, т, с, ш, д, ж, з, к, қ, ғ, г, р, л, м, н, ң, у, й) consonantones.

Academician I. K. Kengesbaev specifies that the system of the Kazakh vocalism consists of 9 pure vowels (а, ә, е, о, ө, ұ, ү, ы, і) and from the diphthongoids *sy* and *u*. He shows the place of articulation of consonants and divides them into 8 groups: labial (п, б, м, у), labiodental (в, ф), dental (т, д, с, з, ц), forelingual (н, к, л, ч), front (р, ж, ш, й), mediolingual (к, г), backlingual (к, ғ, ң, х) and glottal (h).

He divides consonants according to the manner of articulation into: occlusive (т, д, к, г, қ, ч, ц) and constrictive (в, ф, с, ш, з, ж, ғ, х, һ). He considers that the affricate <дж> is a sound variant of the phoneme <ж>. So, I. Kengesbaev shows 36 sounds- 11 vowels, 25 consonants in the Kazakh language. Present-day's textbooks, educational means are based on this system.

Professor K. Akhanov in his textbook " The Basis of linguistics " which is used at the universities of philological faculties shows 23 consonants (б, п, м, ф, в, т, д, с, з, н, л, ч, ш, р, ж, й, к, ғ, ң, х, қ, г, х), 9 pure (а, е, ы, і, ә, о, ө, ұ, ү) vowels and two diphthongoids (у, и). In K. his opinion the Kazakh sound inventory consists of 34 phonemes. There are 9 vowel monophthongs- а, ә, е, о, ө, ы, і, ұ, ү and 25 consonants: п, к, қ, т, с, ш, ф, щ, х, ц, ч, б, г, ғ, д, з, ж, һ, р, л, й, у, м, н, ң in professor A. Hasenov's opinion. And he pointed out 34 phonemes.

The author of educational means which is used in the higher schools, K. Beisenbaeva considers that there are 12 vowel phonemes: а, ә, о, ө, ұ, ү, у, ы, і, и, э, е and 25 consonant phonemes: б, п, в, ф, д, т, з, с, ж, ш, щ, ч, ц, г, к, ғ, м, н, ң, л, р, һ, х, й in the Kazakh language. She says there are 29 phonemes in primordial sound system of the Kazakh language: а, ә, б, г, ғ, д, е, ж, з, и, й, к, қ, л, м, н, ң, о, ө, р, с, т, у, ү, ұ, ш, ы, і, п.

Scientist S. Myrzabekov specially investigated the sound combinations of the Kazakh language and has brought them into the educational means. And in his researches: " ...there are 9 vowel sounds in ancient words of the Kazakh language... But it is impossible to limit to these 9 sounds. The opinions, that there are 11 or 12 vowels sounds in Kazakh language is close to the reality.... There are 25 consonant phonemes in modern Kazakh language.... "

- **Sonorants:** л, м, н, ң, р, й, у;
- **Voiced:** б, в, г, ғ, д, ж, ж;
- **Voiceless:** п, ф, к, қ, т, ш, с, х, һ, ц, ч.

We have looked through the basic textbooks and educational means and have done analysis. There are different conclusions in other educational means and methodical literature, in comparative researches: 11 vowels, 25 consonants, totally 36 phonemes (A. N. Nurmahanova) ; 12 vowels, 26 consonants, totally 38 phonemes (N. Oralbaeva and others);

Sergaliev M.-12 vowels, 25 consonants, totally 37 phonemes; Karaev M.-9 vowel monophthongs, 2 vowel diphthongs, 25 consonants, totally 36 phonemes; Turkbenbaev N. U.-9 vowels, 25 consonant phonemes, totally 34 phonemes. A special attention should be paid to the fact that there is no sequence and coordination in defining the sound paradigm even there are opinions which completely contradicted each-other.

In the last centuries some problems of the Kazakh sound structure had been investigated by means of technical equipments. For example, the system of vowels (Z. Aralbaev, A. Zhunisbekov), an accent, reduction (B. Kaliev), the spectral analysis of vowels and consonants (S. Tatubaev, A. Koshkarbaev, M. Rajymbekova) etc.

Basing on an instrumental method A. Zhunisbekov describes the phonetic structure of the Kazakh language in this way: "... there are not 9, but 6 vowel monophthongs, also three monophoneme diphthongs in the Kazakh language. The results of experimental-phonetic analysis shows that [e], [o] and [ö] are the monophonemic false ascending diphthongs consisting of following compound components: [e] - [j+i], [o] - [w+и].

"Hence, the Kazakh vowel system consists of 6 monophthongs: [a], [ä], [y], [i], [и], [ü] "...

"... Thus, We singled out the following 17 consonants: [b], [q-y], [d], [z],[ž],[j], [k-q], [l], [m], [n], [ŋ'-ŋ], [p], [r], [s], [t], [w], [š] in primordially Kazakh consonantism, the consonants в, ц, ф, ш, ч came from the Russian language and is recommended to pronounce them according to their origin. "

Thanks to the last successes of linguistics, especially different elements in the structure of the literary language are investigated by the method of experimental phonetics. Earlier the phonetic units (a sound, a syllable, a phonetic word etc.) were investigated by the subjective method, as the acoustical method taking into consideration the movements of organs of speech.

Now articulation features of the certain sound or phonetic unit are investigated through cinema-X -ray of organs of speech and ways, and acoustic features are investigated through special devices which make the spectral analysis. The method of experimental phonetics hasn't only supported and investigated the subjective method from the new side, but also offered the conclusions differing from the traditional ones. For example, the conclusion that the language unit which unifies the sounds is a word stress was predominant in Kazakh Linguistics and in Turkology. The section of phonetics in textbooks is written in this way.

### **Vowels and Diphthongs**

Academician I. Kengesbaev who specially investigated the phonetic system of the Kazakh language as a result a textbook was published. He says that the Kazakh vocalic system consists of 9 pure vowels and diphthongs [y], [й] astound distinguished their phonological diff and showed vocalic system from the phonetic point of view.

K. Zhubanov showed 25 consonants adding the sounds [ф], [в], [ч],[x], [ц], [h] to 19 sounds which were pointed out by A. Baitursynuly and K. Zhubanov. It seems to us that the investigator took into consideration the sounds which were transferred with the words which came from foreign language into Kazakh. Incoming of lexical, significant, morphemic units into the vocabulary of the certain language is untruthful linguistic truth. Can significant units (sound, phoneme) of the language income into phonological system of another language? This is one of the uninvestigated and doubtful problems of the linguistic science. But, we support the opinion that insignificant units can not be transferred into the another language.

The sounds [h], [x], [ϕ] in Kazakh language are not met in the materials of national language. These sounds are met in the materials of the ancient Kazakh literary language or bookish language, which came from the basis of written literary language shagatai. In reality the system of bookish language is one thing and one system of literary language, which includes the system of sound based on national language is another thing. Therefore, professor S. Isayev showed that were phenomenon of doubled language system in Kazakh society in 15-18 centuries (ancient Kazakh bookish language and the oral literary language.)

Academician I. Kengesbayev might be taken into his consideration the [x], [h], [ϕ] consonants which were in the words of Kazakh bookish language.

There are a lot of difficulties in determining the inventory of phonemes in this or in that language.

From our analysis's it is seen that there are a lot of different point of views in differentiating the inventory of phonemes in Kazakh language. And what is the reason of that? Before saying that the opinion is wrong we should know why it is wrong and we should discover it's shortage and prove why it is wrong.

When a scientist investigates the sound system of another language and distinguishes the peculiarities of a sound system he takes into consideration the sound system of his mother tongue. For example, the investigators of Russian Linguistics V. V. Radlov, P. H., N. L. Ilminsky concluded that the hard sounds [ɲ], [p] and soft sounds [ɲ'], [p'] are separate, independent sounds in the Kazakh system of consonants, in accordance with the Russian sound system. But by the traditional phonological point of view the sounds [ɲ], [p] and [ɲ'], [p'] are the hard and soft variants, syngarmo variations of one phoneme.

The Russian turkologists considered that the sounds [ɲ] and [ɲ'], [p] and [p'] are independent, four phonemes because they regarded the sound system of Kazakh language from the differential feature of Russian consonants.

That is the reason that V. V. Radlov, P. H. Melioransky, N. L. Ilminsky other turkologists couldn't show the exact inventory of Kazakh sound system.

However, without taking into consideration that consonants [ɲ], [p] are hard and soft independent sounds and N. L. Ilminsky's opinion that vowels [a], [ə] are the variants of one sound, we can say that the Russian turkologists showed correct form of the Kazakh sound system by traditional phonology.

A special attention should be paid to the conclusions of a prominent scholar A. Baitursynyly who expressed his opinion about sound system of Kazakh language and formed alphabet. This alphabet concerned to the investigations of implicative phonology. A. Baitursynyly is through the first phonologist in Kazakh Linguistics. Here we will stop on the N. Ualiev's interpretation.

From N. Ualiev's point of view, we should look through the phonological point of view of A. Baitursynyly about Kazakh sounds in his alphabet. "... There are 24 sounds in Kazakh language: 5 of them are vowels and 17 are consonants. The vowels : a, o, ʏ, ы, e. The following consonants : б, п, т, ж, ш, д, р, з, с, ф, к, г, н, л, м, Һ. Semi-vowel sounds: Short y and very short й (1, 324). Analyzing this conclusion, N. Ualiev noticed that there is no particular difference between inventory of Kazakh consonants and their defining in the letter. Though scientist did not introduce sounds x, h in consonant system of Kazakh language, he looked for the basic peculiarities connected with vowels.

### “Invariant-Variant”

According to the investigators vowel system of Kazakh language which defined A. Baityrsynyly we can comprehend as “Invariant-variant”.

There are 5 invariant phonemes in vowel system of Kazakh language. Every invariant phoneme has 2 variants which varies as stable and sort, except [e]:

- Variant [a] ақ
- Invariant phoneme <a> variant [ə] әк
- Variant [o] оқ
- Invariant phoneme <o> variant [ɵ] өк
- Variant [ɣ] ҥқ
- Invariant phoneme <ɣ> variant [ɣ] ҥқ
- Variant [ы] ық
- Invariant phoneme <ы> variant [i] тік
- Invariant phoneme <e> variant [e] ек

Knowing that variants [a] and [ə] are one invariant phoneme, it is need that they would have common qualities. They are open and unrounded 2 variants. But if consider them as 2 different variants, they ought to have differences. It is stableness of one [a] and softness of another [ə]. We can also say such about invariant phonemes <o>, <ɣ>, <ы>. It is the same. Secondly, variants can be in paradigmatic relations, so according to the principles one of the two in the word must be variant [a] or [ə]. Invariants are in syntagmatic relations consider as “and”...“and”. In this vowel system of paradigmatic and syntagmatic relation we can show this.

**Table 1: Paradigm** ↓

A	o	Ү	Ы	syntagmatics
ə	ɵ	Y	I	E

According to syntagmatic relations vowels [a],[o],[ɣ],[ы] are used in one word: ақын, отан, ұлы, қызы so the vowels [ə],[ɵ],[ɣ],[i],[e] :әні, өнері, үні, елі, etc. Thus, we can notice, that variant of invariant is not in syntagmatic relations or they must not meet in one word. In conclusion scientist explains the system of “5 vowels” of A. Baityrsynyly.

In A. Zhunisbekov’s investigation there are inflexions in describing traditional synchronic phenomenon.

Syngarmonism - combining vowels and consonants which pronounced inseparable 4 common timbres. Vowels and consonants can not have independent timbres and can not be the case as in one timbre is the main (vowel) and in other is the subordinate which are combined in equal levels. As ascertained, A. Baityrsynyly “the unity of vowels and consonants like the unity of the soul and body.”

Such timbre as showed the scientist is not the common phonetic timbre as emotional – expressing or polytimbric. It is called syngarmotimbre. Syngarmotimbres form the importance of morphemes and word sounds and also distinguishes

meaning of the language from each other. The more exact it forms phonological function. From the investigators point of view linguistic meaning of the syngarmonism does phonological function.

In spite of this in the investigations of the authors (A. Baitysynyly, K. Zhubanov, I. Kenesbayev, A. Zhunisbekov etc.) showing inventory of the segmental units and defining inventory super segmental units in works of A. Nurmakhanova and Z. Basarbayeva on the theoretical problem level, especially if to conform on the opinions of A. Baitysynyly, H. Dosmykhamedov and in the other works about syngarmonism, so last years this problem began investigated intensively.

We have made a brief analysis of some investigations and textbooks where the inventory of Kazakh phonemes were shown. We noticed that there are a lot of contradictions in defining the exact inventory of phonemes in Kazakh language. For example, V. V. Radlov considered that there are 9 vowels, and A. Bajtursynov defined 9 vowels including their invariants and variations. In this case we can say that the opinions of V. V. Radlov and A. Bajtursynov coincide.

## CONCLUSIONS

The conclusion which was made by N. I. Ilminsky that [a] and [ə] is one phoneme without taking into consideration the hard and soft variants of other vowels is impossible from the linguistic and scientific point of view. A. Bajtursynov defined the system of consonantism of the Kazakh language exactly.

So, under the phonological conception A. Bajtursynov there are 19 consonant invariant phonemes in Kazakh language. It is necessary to pay a special attention that A. Bajtursynov was the first scientist who showed the invariant and variant types of phonemes. For example, he has shown 9 variations of 5 vowels, 34 variations of 19 consonants, and as a result he pointed out 43 sounds.

A. Bajtursynov considered that the phonetic system of the Kazakh language consists of 24 invariant phonemes. To our mind this conception is very close to the reality.

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